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Ofgem: Connections end-to-end review

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Summary

Energy Systems Catapult welcomes the opportunity to this Ofgem consultation on an end-to-end review of grid connections and related matters.

The Catapult was set up to accelerate the transformation of the UK's energy system and ensure UK businesses and consumers capture the opportunities of clean growth. The Catapult is an independent, not-for-profit centre of excellence that bridges the gap between industry, Government, academia, and research. We take a whole systems view of the energy sector, including in policy design and implementation, helping us to identify and address innovation priorities and market barriers, to decarbonise the energy system at the lowest cost.

We provide a response to the detailed consultation questions in the annex. We would be happy to further discuss this topic with you.

Sincerely,

Inès, Peter and Charmalee

Response to detailed consultation questions

Theme 2 - Improved standards of service across the customer journey (not including “minor connections”)

Question 2a. Do you agree with the issues we have set out under Theme 2 – Improved standards of service across the customer journey (not including “minor connections”)? Are there any other issues under this theme that we should consider or be aware of?

We broadly agree with the issues outlined under Theme 2 and acknowledge the challenges that have been identified across the customer journey.

The challenges identified can all significantly impact the overall connections experience and contribute to the delays in the process. In real world applications, it may be beneficial to establish a generalised process applicable to all connection’s applications, while also implementing more specific arrangements for certain type of connections, particularly those expected to become more prevalent in the future.

In a Net Zero energy system, we expect more and more inverter-based connections of different types, such as solar or wind farms, as well as HVDC links on the generation side. On the demand side there will also be a rise in static loads. Decarbonising electricity will also require connection of synchronous condensers, storages and other type of specific technologies.

Given this evolving landscape, we believe that some standards related to the customer journey could be technology specific. This can ensure the connection requirements remain fit for purpose irrespective of the location or the responsible TO or DNO, or a size of the connection.

Question 2b. Do you have any views on proposal 2a (general principles-based licence condition and supporting guidance around standards of service throughout the entire customer journey)? Do you have any views on how this could be implemented?

Based on the challenges listed from the stakeholders, the key issues relate to standard inconsistencies, timelines issues, and T&D issues. We believe that the connections process should not only be more effective, predictable, faster but also fair and transparent for all stakeholders.

To achieve this, the process needs to be predictable particularly in terms of defined deadlines, clear process expectations and accountability.

The entire process for connections could be effectively monitored by OFGEM ensuring efficient implementation of the goals while also addressing any delays or conflicts of interests that may arise under various circumstances.

Question 2c. Do you have any views on proposal 2b (new prescriptive condition(s) around standards of service)? Do you have any proposals for any specific areas of the connections customer journey that should be subject to such a requirement?

We acknowledge each connection enquiry is unique and influenced by multiple factors including network constraints, project readiness and the existing queue backlog. However, given the increasing demand for grid connections, we believe that minimum standard licence can serve as an effective mechanism to ensure consistent progress in the application process. Minimum standards are particularly important for the technologies that contribute to the Net zero ambition. Any delays in their connection process can lead to postponement in achieving decarbonisation targets. While

the introduction of the minimum standards requires careful analysis and evaluation, their implementation can provide, a guaranteed a maximum processing time for connection applications to be completed and an improved efficiency in handling applications particularly for projects that share similarities.

For example, one possible approach to expediting the connection process is to optimise queue management by processing applications at the same Grid Supply Points (GSPs) or similar locations concurrently, rather than sequentially. This could allow for more efficient use of network planning resources, faster assessments and decision-making for grouped applications and improved coordination between TOs, DNOs, and NESO, reducing redundant delays.

Question 2d. Do you consider that any of the existing standards of service requirements set out in the regulatory framework for provision of specific products / services should be revised or removed? Do you consider that there is any duplication or overlap of regulatory requirements across the regulatory framework that needs addressed?

We believe that a revision of service requirements within the regulatory framework would be beneficial, particularly where improvements could lead to faster and more efficient connection processing. Any changes should aim to reduce unnecessary delays while maintaining fairness and transparency for all stakeholders.

We recognise that potential overlaps exist, especially in cases where an application involves both Transmission Owners (TOs) and Distribution Network Operators (DNOs), or other involved parties. These overlaps can create inefficiencies, duplicated processes, and inconsistencies in how applications progress through the system. In order to improve the process, the OFGEM could also:

- Monitor and coordinate the connections process to ensure that no unnecessary duplication occurs.
- Align processes across TOs, DNOs, and other stakeholders to improve efficiency.
- Serve as an arbitration body to resolve delays and streamline inter-party interactions.

Question 2e. Is there anything else regarding Theme 2 – Improved standards of service across the customer journey (not including “minor connections”) that you consider we have missed?

We acknowledge that the key issues have been well-identified through stakeholder engagement in the original consultation document. However, in order to effectively update existing standards, we recommend that Ofgem conducts further engagement with stakeholders to:

- Refine and specify the necessary updates to standards.
- Ensure a more tailored approach that considers different technologies and connection types.

Recommendation: To facilitate this process, we recommend the creation of a dedicated working group consisting of: Transmission Owners (TOs) and Distribution Network Operators (DNOs), The National Energy System Operator (NESO), Connecting customers from different industry sectors (e.g., renewables, storage, industrial demand, flexibility providers, etc.), Independent industry experts and regulatory representatives. This working group could: Identify practical challenges in implementing improved service standards; Assess the real-world impact of proposed changes on

different connection types.; Ensure alignment between regulatory requirements and the evolving energy landscape, particularly with respect to Net Zero goals.

Theme 3 - Requirement on networks to meet connection dates in connection agreements

Question 3a. Do you agree with the issues we have set out under Theme 3 - Requirement on networks to meet connection dates in connection agreements? Are there any other issues under this theme that we should consider or be aware of?

We agree with the issues outlined under Theme 3, particularly the challenges related to meeting connection dates, which can significantly impact project timelines and financial viability for renewable energy projects. Ensuring timely connections is crucial for integrating renewable energy sources, maintaining investor confidence more broadly and supporting the broader goals of the RII0-3 framework. Delays in connections can lead to increased costs and project uncertainties, negatively impacting projects' financial viability and investor returns.

There are a few other issues to consider, such as:

- The variability in connection timelines across different regions and network operators. Standardising connection processes and timelines could help mitigate regional disparities and ensure a more consistent approach to renewable integration.
- Ensuring that networks have adequate resources, both in terms of workforce and materials, to meet connection deadlines. This includes addressing potential supply chain disruptions that could affect project timelines.
- Introducing some level of regulatory flexibility to accommodate unforeseen circumstances that may impact connection dates, such as extreme weather events.
- Implementing incentive mechanisms for networks that consistently meet or exceed connection date commitments. This could include financial rewards or other forms of recognition to encourage timely project completions.

Question 3b. Do you have any views on proposal 3a (strengthened principles-based licence condition around meeting connections dates)? Do you have any views on specific wording that would achieve the intended outcome?

The proposal for a strengthened principles-based licence condition around meeting connection dates provides the necessary flexibility to adapt to varying situations while ensuring that the timely connections are met. This is reinforced in the Clean Power Action Plan, highlighting the importance of prioritising critical energy infrastructure projects. Strengthening licence conditions to ensure timely connections will support the plan's objective of accelerating the deployment of renewable energy.

Regarding specific wording to achieve the intended outcomes, **while we cannot provide legal advice to Ofgem**, we consider that there is value in Ofgem considering the following more specific suggestions for the language used:

- Being clear on accountability: The licence condition could include language such as: "Network operators must take all reasonable steps to ensure that connection dates agreed upon with customers are met, barring exceptional circumstances beyond their control. Failure to meet agreed connection dates without valid justification will result in regulatory review and potential penalties."

- Being transparent and with a clear stakeholder engagement plan. "Network operators are required to provide regular updates to stakeholders on the progress of connections and any potential delays. These updates should include detailed reasons for any delays and the steps being taken to mitigate them."
- On aspects of incentives and penalties: "Incentive mechanisms will be implemented to reward network operators who consistently meet or exceed connection date commitments. Conversely, penalties for repeated failures to meet agreed connection dates will be imposed without valid justification."

Question 3c. Do you have any views on proposal 3b (minimum standards / SLAs around meeting connections dates)? Do you have any views on specific standards that could be introduced and how they would work in practice?

Introducing minimum standards or Service Level Agreements (SLAs) around meeting connection dates is a positive step. Establishing clear and measurable standards can help ensure accountability and consistency in network performance, which is needed to maintain investor confidence and achieve the objective of the framework. By clarity, we anticipate specifics in the standards such as agreed timeframe, regular communications and updates to customers on the status of connections, and transparency related to potential delays.

Question 3d. Do you have any views on proposal 3c (a financial instrument designed to offer recourse to connecting customers who face detriment due to delays)? Do you have any views on how this should be implemented?

The introduction of a financial instrument designed to offer recourse to connecting customers who face detriment due to delays can provide a safety net for customers, to ensure they are compensated for any financial losses incurred due to network delays. This can also incentivise networks to adhere to connection dates more rigorously.

Question 3e. Is there anything else regarding Theme 3 - Requirement on networks to meet connection dates in connection agreements that you consider we have missed?

Not answered

Theme 4 - Quality of connection offers and associated documentation

Question 4a. Do you agree with the issues we have set out under Theme 4 - Quality of connection offers and associated documentation? Are there any other issues under this theme that we should consider or be aware of?

Question 4b. Do you have any views on proposal 4a (principles-based licence condition on the completeness / quality of the offer and supporting documentation)? Do you have any views on specific wording that would achieve the intended outcome?

Question 4c. Do you have any views on proposal 4b (minimum standards / SLAs on the completeness / quality of the offer and supporting documentation)? Do you have any views on specific standards that could be introduced and how they would work in practice?

Question 4d. What do you consider would constitute a 'high quality offer'?

Question 4e. Is there anything else regarding Theme 4 - Quality of connection offers and associated documentation that you consider we have missed?

Theme 5 – Ambition of connection offers

Question 5a. Do you agree with the issues we have set out under Theme 5 – Ambition of connection offers? Are there any other issues under this theme that we should consider or be aware of?

We agree that there is a critical need for network upgrades to support the increasing number of projects seeking grid connections, particularly offshore projects. This aligns with the issue of grid capacity constraints and connection delays. This, however, will only be possible with a coordinated and efficient network design to handle increased demand and supply variability, tying into the existing technological integration and infrastructure challenges.

Coordinating with other renewable projects (onshore and offshore, nascent and mature) through the Strategic Spatial Energy Plan (SSEP) will facilitate more efficient connections and support higher volumes of applications.

These link to the need for connection reforms, which have been in place since December 2024, aiming to streamline the connection process and remove unviable projects from the queue, addressing regulatory and policy barriers.

Perhaps, while not explicitly mentioned, integrating environmental and social impact assessments into the planning process can help address stakeholder concerns regarding the multi-use of land or sea.

Question 5b. Do you have any views on proposal 5a (strengthened principles-based licence condition around offering earliest achievable connection dates)? Do you have any views on specific wording that would achieve the intended outcome?

Prioritising project readiness and strategic importance is key to getting to the CP30 target and a longer view of the Net Zero target, which can be linked to strengthened principles-based licence conditions.

The aspects that need to be clear are ensuring enough accountability with regular audits and reporting requirements to be able to monitor progress and adapt processes

Question 5c. Is there anything else regarding Theme 5 - Ambition of connection offers that you consider we have missed?

- There is a need for continuous stakeholder engagement to build trust and address concerns.
- Continuous review and support of innovative solutions to help overcome connection challenges such as flexible approaches, advanced grid management solutions, etc.
- Already covered in 5a and 5b, but an emphasis on the importance of long-term planning and investment in grid infrastructure to accommodate future offshore wind capacity as well as other renewables capacity.