



Ofgem
10 South Colonnade, Canary Wharf
London E14 4PU

16 June 2023

Re.: Open Letter - Future Reform to the Electricity Connections Process

Dear Sir / Madam,

We appreciate the opportunity to respond to the above Open Letter. Please find our answers below.

Please do not hesitate to contact me should you have any questions or require any further information.

Yours faithfully,

Jean Crisp

Global Industry Executive

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The Case for Change

We agree that the achievement of Net Zero will require wide ranging changes to the way new electricity connections are made available and to the network itself. As the electricity system moves away from its decades old design of large, conventional power stations situated close to significant sources of demand, the challenge of accommodating large volumes of smaller, distributed, renewable generation with much more variable load profiles needs to be addressed. As older conventional plant is retired and more renewable plant comes online, it is imperative that the connections process for renewable generation be expedited to ensure that the continuous real-time balance between electricity demand and supply can be maintained and the grid kept stable.

This ongoing shift in the number, placement and intermittency of generation plant will affect the transmission and distribution networks in various ways; changing power flows will continue to lead to congestion in certain areas and reinforcement will need to be conducted based on the future scenarios deemed most likely to address this. This engineering work will need to be executed as soon as possible, thus making streamlining and rationalisation of the current connections process an even greater priority.

The current system of capacity allocation operates on a First Come First Served (FCFS) basis with, as Ofgem notes, *“...each new connection request being considered in light of those in front of it – irrespective of a project’s status or viability.”* This approach currently results in a significant volume of generation projects with connection dates of 2030 or beyond. It therefore prevents delivering capacity at pace and risks achievement of Net Zero Targets. We agree that both new and existing network capacity must be used as effectively and swiftly as possible to optimise the number of connections granted to viable projects.

Whilst Ofgem’s Centralised Strategic Network Plan (CSNP) will assist in identifying the most economically efficient engineering work to accommodate this, a comprehensive programme of increased network monitoring, based on automation and digitalisation, will be essential for the full benefit of these changes to be delivered.

This will apply to both real-time grid state monitoring and to the standardisation and exchange of related data between National Grid Electricity System Operator (NGESO), the planned Future System Operator (FSO) and market participants to enable full value to be derived from the flexibility delivered by the newly connected distributed generation.

The introduction of Market Wide Half Hourly Settlement (MHHS) will also play a significant role, by facilitating true time of use tariffs and more efficient usage of electricity, thus helping to avoid a greater degree of network reinforcement than might otherwise be required.

Recommended Changes

We believe that the new connections allocation process would benefit from an approach based on digitalisation, automation and the application of a relevant, standardised data framework to inform capacity allocation. This ensures that those projects which are best placed to become operational within an optimal period receive priority.

In support of this approach, we recommend the FCFS process is replaced by a Grid Readiness Assessment process which determines a project’s place in the connection queue. Along with a project’s viability, the grid’s ability to operate the new connection would be a fundamental assessment criterion, giving priority to those projects that can connect and begin generation in a timely fashion. Assessment would be dynamic,

applying to both new and existing projects in the queue, helping to mitigate any issues with projects becoming unviable following initial prioritisation due to previously unforeseen challenges.

We acknowledge the work currently progressed by the Energy Networks Association (ENA) and NGEESO and agree that this will assist in removing projects that are not progressing from the connections queue. It is important that connection agreement participants are informed as soon as possible of any impact resulting from network engineering projects instigated following the completion of this process, as any knock-on commercial ramifications will need to be considered.

The desired outcomes identified by Ofgem are logical. A wide-ranging digital data infrastructure, operating within standardised parameters to enable simultaneous data transaction, will provide a better view of available grid capacity, accelerate the connections applications process and ensure that projects which can progress rapidly to electricity production are given priority. It will also assist with the provision of robust price signals should a decision be made in the future to allocate capacity based on an auction process, particularly within constrained areas of the network.

We agree that closer coordination between transmission and distribution networks is essential to achieve these aims, particularly in terms of interaction between NGEESO (and the future FSO) and DSOs, once the latter function becomes active from an operational standpoint. It is important that equal consideration is given to flexibility on the customer demand side and generator supply side. As time goes on and innovation advances, the line between the two is likely to become increasingly blurred, with the FSO needing to take full account of both to ensure that demand is always matched with supply, whichever side of the fence these originate with.

Timeline for Change

Changes are required at pace. This can only be done by rapidly digitalising the grid through a coordinated, robust cross-sector strategy which outlines a clear roadmap for delivery. Streamlining of the connections process through the introduction of a Grid Readiness Assessment process is a significant first step.

Any changes should be underpinned by a principle of universal digital access amongst all stakeholders to relevant, granular data, updated in as close to real-time as possible. This allows efficient connection allocations to be made and progressed in a timely manner whilst providing justification for decisions taken by means of visualisation functionality. Controlled access in connections application management, facilitated by coordination between networks, Ofgem and stakeholders must enable end consumer price reduction and greater market engagement and liquidity. This ensures that Britain meets its Net Zero aims in a coordinated, secure fashion and in the most economically efficient manner.

Eviden has significant, global experience in digital data architecture design and implementation. We believe digitalisation of the energy sector is fundamental to deliver Net Zero targets, reduce costs and improve market engagement and liquidity. We are grateful for this consultation opportunity and look forward to collaborating with Ofgem and its wider stakeholders to further deliver these outcomes.