

April 2024

GB Connections Reform

Update on implementation of reformed connections processes

Progress to date & proposed way forward

In December 2023, we published our [Final Recommendations Report](#) for longer-term reform of the connections process. This followed work with stakeholders to develop and explore options for connections reform in the early part of the year and a [formal consultation](#) in June 2023.

Our report set out a 'First Ready, First Connected' process (referred to as TMO4¹), which was based on an early application window (with an indicative frequency and duration of 12 months) and two formal gates. Gate 1 would provide connection offers based on a co-ordinated network design connection date. Gate 2 would be used to determine queue position for projects within the application window and accelerate eligible projects. The reformed process would apply to all new generation and demand connection applications (or significant Modification Applications) received after the go live of the new process in January 2025.

Our report also described additional changes we could make before or in parallel to go live of the reformed process. These were developed in response to the position set out by Ofgem and the Department for Energy Security and Net Zero (DESNZ) in the Connections Action Plan (CAP) that further measures are needed to address the current connections queue and accelerate the connection of viable projects. Options outlined in our final report which were aimed at reforming the existing queue in the near term included:

- 'Stacking' projects by technology type: setting a capacity threshold for each connection technology to reform the queue and place currently contracted projects that sit outside the threshold in a 'stack' outside the queue

- Running a one-off capacity auction to determine queue order based on an assessment of bids submitted by projects
- Running a one-off trading window to enable projects to trade queue positions and/or capacity with each other
- Running facilitated queue swaps where the ESO would match projects wishing to advance their queue date with those wishing to delay

As well as developing and assessing these options, we continued to consider a wide range of other ideas for accelerating connection dates.

Options for trading or swapping of queue position were discounted because physical limitations such as location, capacity and technology type would mean the volume of available swaps would be highly limited. A one-off capacity auction is also currently discounted because of the extended time period required to design and implement this. The time required to define and agree appropriate criteria to 'stack' the queue by technology type currently counts against this option.

However, a variation where the queue is reformed based on project readiness has been identified, in which we would 'apply Gate 2 to the existing queue'. This approach (referred to as **TMO4+**) can provide a positive, timely impact on connections timelines.

The approach has been discussed with the Connections Process Advisory Group (CPAG) and [steer has been provided by the Connections Delivery Board](#) (CDB) to progress it as a proposal via the appropriate regulatory processes. This document sets out TMO4+ as our proposed way forward for connections reform, building on the TMO4 process set out in our Final Recommendations. ²

¹ Target Model Option 4

Rationale for TMO4+ approach

The ESO started its connections reform programme in October 2022 with the following objectives:

- Quicker connections for viable projects;
- A more co-ordinated and efficient network design for connections that delivers benefits for customers and consumers; and
- A process which helps to efficiently deliver Net Zero.

Since then, the transmission connections queue alone has grown by more than 275GW and has been growing steadily at an average of over 20GW a month for the last 12 months. The distribution connections queue has also continued to grow and, at the current rate of growth, the total connections queue (across transmission and distribution) is likely to exceed 800GW by the end of 2024. This is over 4 times the installed capacity we anticipate needing by 2050.

As part of the ESO's 5 Point Plan and the ENA's 3 Point Plan, the electricity networks have been undertaking multiple initiatives to address the connections queue. These actions are in line to deliver benefits for c100GW of projects by removing stalled projects from the queue, releasing additional network capacity and providing projects with accelerated connection dates. However, the size of the queue has continued to rise at a much higher rate.

Under our previous proposals, TMO4 would only have been applied to new connection applications and significant Modification Applications received from 1st January 2025 onwards. In practice, due to the fast-growing nature of the queue, this would not improve dates in the timescales needed to deliver on our

objectives or the objectives of the CAP. Therefore, it is clear we need to go further and faster, with significant action required as soon as possible across the whole of the current queue to enable viable, Net Zero aligned projects to be connected more quickly.

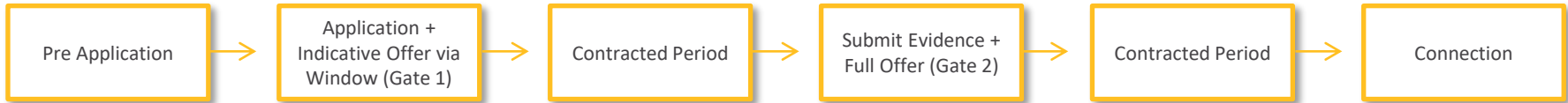
Under our proposed TMO4+ approach, only projects that meet the Gate 2 criteria will be provided with a queue position. **This approach will be applied to projects in the existing queue, as well as to new projects applying for network connections.** Each project, including new applicants under the reformed connections process, will be able to obtain a queue position after they have reached Gate 2, irrespective of when they originally applied. Capacity freed up by the TMO4+ approach will be used to offer better connection dates to existing projects that have met the Gate 2 criteria, if they wish to be accelerated, and to projects arriving at Gate 2 in the future.

The TMO4+ approach supports our connections reform objectives and the CAP ambition for “transmission connection dates offered to be on average no more than 6 months beyond the date requested by the customer.” TMO4+ also aligns directly with the Connection Action Areas in the CAP by: 1) raising entry requirements; 2) removing stalled projects; 3) better utilising existing network capacity; and 4) better allocating available network capacity.

Analysis of currently available data indicates that our proposed TMO4+ approach could potentially more than halve the size of the queue, enabling earlier connection dates for projects that have met Gate 2.

How TMO4+ will work in practice is described in more detail in the next section.

Description of the TMO4+ process²



TMO4+ is a gated process with an annual early application window leading up to Gate 1. At Gate 1, applications will be assessed for competency³, with competent applications being included in a co-ordinated network design to inform our plans for building future network capacity. Offers will be issued at Gate 1 for the capacity and technology requested, with an indicative connection date and an indicative connection point. Gate 1 projects will not be allocated supporting transmission reinforcement works, User Commitment liabilities and securities, or Queue Management Milestones.

TMO4+ differs from TMO4 in that the indicative connection date provided at Gate 1 is subject to change and may move backwards. This may occur where other projects reach Gate 2 first and are issued with a queue position. However, it is also possible for an earlier date to be offered at Gate 2, in the situation where other projects have exited the queue or have been terminated under Queue Management. This is an important feature of TMO4+ enabling readier projects access to better connection dates.

It is our intention that data will be made available to enable Gate 1 projects to self-serve information about how the queue and associated connection dates are developing at their preferred connection point, as they progress to Gate 2.

Our current minded to position for Gate 2 criteria⁴ is that they will include requirements regarding: i) having secured land rights for the proposed location;

and ii) dates for submission of applications for planning consent. These criteria will continue to be developed through the code modification process.

Projects may also be deemed by the ESO to have met Gate 2 where they meet specific strategic criteria.

It is our current intention to group projects together for Gate 2 assessment at regular intervals throughout the year. In the Gate 2 process, projects will be assigned a queue position based on the date that they demonstrate having met Gate 2 criteria (supporting a 'First Ready, First Connected' approach) and will be allocated a connection date and connection point for the capacity and technology applied for at Gate 1. Projects will also be allocated supporting transmission reinforcement works, User Commitment liabilities and securities, and Queue Management Milestones based on their confirmed connection date.

Following Gate 2, projects will be required to continue to demonstrate their progress via the Queue Management process. Projects not meeting their Queue Management Milestones may be removed from the queue, with capacity freed up by projects exiting the queue being used to provide more favourable dates to other projects that have met Gate 2.

We are also considering use of financial instruments at Gate 1 and Gate 2 to encourage only viable projects to enter and remain in the connections process.

² These proposals are not final and are subject to Code Modification Proposal (CMP) and Licence Change processes and Ofgem's approval

³ Gate 1 competency checks under TMO4+ will include enhanced requirements for a Letter of Authority (LOA) which will be set out in the CMP process

⁴ More detail regarding Gate 2 criteria will be set out in the CMP process

Description of the TMO4+ process

TMO4+ for Distributed Energy Resources (DER)

Relevant⁵ DER projects will not apply via the Gate 1 application window. They will instead apply to their DNO at any time throughout the year to achieve Gate 1 status. When a DER project meets Gate 2, it will submit evidence to the DNO, which will manage the interface with the ESO. As for transmission connected projects, this is when a DER project will be assigned a queue position, together with User Commitment liabilities and securities.

Application of TMO4+ to the existing queue

Projects in the existing queue will be given a period of time, prior to the implementation of TMO4+, to demonstrate whether they have met Gate 2.

Where projects in the existing queue meet the Gate 2 criteria, they will have the option to retain their existing connection date or may request an accelerated connection date based on the reformed queue.

Where projects in the existing queue do not meet the Gate 2 criteria, they will move to an indicative connection date and an indicative connection point. They will also no longer be subject to User Commitment liabilities and securities, or to Queue Management Milestones. Subsequently, these projects will be able to apply for a Gate 2 offer after they have met the Gate 2 criteria.

Context for implementation of TMO4+

It should be noted that TMO4+ is part of a package of necessary reforms, with other actions needed to bring about quicker connections for viable, Net Zero aligned projects. Work continues on a range of measures from our Final Recommendations Report for accelerating network connections, including:

- Stimulating competition and contestability for design and delivery of connections infrastructure
- Reassessing and aligning network modelling assumptions, particularly around the depth of enabling works required for connections
- Enabling re-allocation of substation bays between projects

TMO4+ and these additional measures operate within an environment of wider reforms, such as providing the right regulatory obligations and incentives for network companies to drive earlier connections, as well as accelerating the build of future electricity networks through the measures in the Transmission Acceleration Action Plan (TAAP). All these elements of reform will need to work together to deliver the connected infrastructure needed for a secure, affordable, Net Zero energy network in the future.

Further development of TMO4+

TMO4+ is 'future proof' in that there is the option to further develop Gate 2 criteria to align with GB future energy needs. We will continue to work with DESNZ, Ofgem and industry stakeholders on the future evolution of the connections process. One avenue for consideration is the addition of Gate 2 criteria for technology and location, to align the connections process with the forthcoming Strategic Spatial Energy Plan (SSEP). Criteria of this kind may be introduced to help ensure the resilience and operability of energy networks and support their efficient transition to Net Zero. Any future recommendations and decisions regarding TMO4+ would be made by appropriate parties in line with their duties and under robust governance.

⁵ Relevant DER projects are those projects that currently apply directly to the DNO for connections. This includes small and medium-sized generation projects. Large distribution-connected generation projects currently apply for network connections via the ESO (as well as applying to the DNO) and are therefore intended to follow the TMO4+ connections process.

Next Steps

16/04/24	ESO Connections Forum Update on connections reform proposals
23/04/24	ESO Connections Seminar Update on connections reform proposals
Late April	Submission of Code Modification Proposals
May	Ongoing engagement May include webinars and/or workshops to provide further information and to inform our views
May to September	Code modification processes including Working Groups and Consultations⁶
October	Ofgem decision on Code modifications and Licence changes⁶
October	ESO announcement of confirmed reformed connections process and go live arrangements
January 2025	Go live of the reformed connections process

⁶ Subject to Ofgem's approval of Code Modification Proposal (CMP) timelines and Licence change timelines

Our next steps will be to discuss the proposed TMO4+ approach with wider industry stakeholders, to provide them with the opportunity to comment on the recommended approach. We intend to run a series of engagement events in line with the schedule shown. While we do this, we'll continue to take steer from the CPAG and CDB forums.

Implementation of TMO4+ will require changes to industry Codes and Licence Conditions. We will shortly submit applications to Ofgem for our Code Modification Proposals (CMPs) and will request that these are treated as urgent. The code modification process will provide the opportunity for formal consultation with stakeholders as the proposals are progressed.

Subject to the CMPs being treated as urgent, we hope to receive a decision on them from Ofgem by October 2024. This will allow us a period from October to December 2024 to communicate guidance on the reformed connections process and prepare industry for its implementation.

During the preparation period, we anticipate requesting projects in the existing queue to provide evidence where they have met Gate 2. In the early part of 2025, we would assess the evidence provided and existing projects not meeting Gate 2 would move to an indicative connection date and connection point. The Gate 2 queue would be re-ordered and those Gate 2 projects wishing to request acceleration would then be considered for earlier connection dates.

We will continue to develop our implementation plans, including transitional arrangements, and will engage with stakeholders on these shortly.