

Low Carbon response to Ofgem Open Letter from 19 April 2024: “Update on reform to the electricity connections process following proposals from the ESO”

Summary

Low Carbon strongly supports the ESO’s proposals to apply the TMO4+ connections reforms model to the entire queue. Without tackling the queue of existing projects, we believe it is impossible to accelerate connection dates in line with the objectives of the Connections Action Plan (CAP).

We believe that the biggest risks in the ESO’s current proposals are:

1. **Distribution-specific impacts could cause unintended consequences for DNOs and DNO-connected generators.**
 - a. The ESO is rightly proposing to introduce reforms for the whole queue, including both transmission- and distribution-connected projects.
 - b. However, there are significant commercial and technical differences between distribution-connected and transmission-connected projects; these include curtailment, capital contributions for network reinforcement (including Super Grid Transformers (SGTs)), and the contractual relationship between the customer and the ESO/TO.
 - c. We believe that these issues can be overcome. However, it will require significant time from the DNOs. This will be particularly challenging for the DNOs as they are currently dealing with a huge backlog of Step 2 Statement of Works outcomes and the Technical Limits initiative.
 - d. In addition, there will need to be clear rules for how existing DNO Statement of Works outcomes are affected by the implementation of the Gate 2 rules, including how they can reallocate capacity to different customers. We’re not clear whether this issue is best handled as part of CMP434/CMP435 or via a separate modifications to the CUSC and/or the DCUSA.
 - e. We also believe that, where DNO-connected projects don’t meet Gate 2 at the end of this year, they should lose queue position in both the transmission and distribution queues – for DNO-connected projects, this should also mean losing queue position in relation to curtailment, and contributions to DNO network reinforcement.
 - f. If DNO-connected customers that fail to meet Gate 2 are allowed to retain their DNO queue position, then we believe that this will limit the ability to accelerate the connection dates of DNO-connected customers that do meet Gate 2. Given that the DNO queue position is currently based on application date or acceptance date, depending on the DNO, it’s possible that changes are needed to the DCUSA and/or the ENA queue management guidance in addition to the CUSC modifications proposed.
2. **Slow siting of new substations by TOs (particularly NGET) prevents projects from progressing quickly into planning once they’ve met Gate 2.**
 - a. Transmission-connected generators are increasingly scheduled to connect into new substations, and distribution-connected generators are increasingly subject to the

construction of new substations at the transmission-distribution interface. These substations need to be sited and built by the Transmission Owners (TOs).

- b. If the ESO's connections reforms work, then the queue will be far reduced and it will be possible to assign a higher proportion of customers to existing substations, reducing the need for new ones.
- c. However, we believe it's likely that many new substations will still be required. In many cases, projects connecting into new substations won't be able to progress quickly into planning until the TO confirms the location of its new substation – this is because a fundamental part of the Development Consent Order (DCO) planning process in England and Wales is the deliverability of the grid connection and the finalisation of a red line boundary for the DCO. Without a firm location for the substation, it is difficult for developers to demonstrate that their grid connection is viable, and it is almost impossible for them to finalise a DCO red line boundary.
- d. This could undermine the new Gate 2 / TMO4+ process.
- e. Siting of new substations is less of an issue for transmission-connected projects in Scotland where connection routes are typically designed and consented by the relevant TO.
- f. However, siting of new substations is an issue for distribution-connected projects across Great Britain when new GSPs are required. We are aware of situations where customers are contracted to connect into new GSPs – however, the location of the new GSP is often unknown for many years post-acceptance and could be many miles away from the original site. In this scenario, the customer is progressing their planning application without knowing whether the final substation location of the new GSP will cause the project to be economically unviable due to an excessively long cable route.
- g. We are already aware of issues in NGET's region where contracted transmission customers such as ourselves cannot progress quickly with planning because NGET has not yet undertaken a siting process for the new substation.
- h. To address this, we believe that connections reform should include an obligation for the relevant Transmission Owner to swiftly undertake a siting study for all new substations that have a contracted customer that has passed Gate 2 – where a customer reasonably believes that this is necessary for them to prepare their planning application.
- i. We understand why TOs are reluctant to undertake siting studies for tens of new GSPs when the connections queue is currently so oversubscribed. However, once connections reform is in place, the intention is that only projects that are "ready to progress" remain in the queue and this concern should be substantially addressed.

To further strengthen the ESO's proposals, we believe that further measures are needed to prevent projects with planning consent from becoming the new zombie projects.

The ESO's current proposals do not appear to tackle the potential problem of projects securing planning consent and then sitting in the queue for many years with little prospect of connecting (e.g. because a project's technology has fallen out of favour with investors). This is particularly a risk as, under these proposals, the CMP376 post-consent Queue Management Milestones would remain calculated working backwards from a project's current energisation date.

To address this, we believe that projects with planning consent should be required to accept an earlier connection date if offered one by the ESO and if the earlier connection date is reasonably deliverable taking into account the customer's mobilisation and construction timelines, including for the cable route. If the customer does not accept the earlier date, then the ESO should have the right to delay those projects up to a time limit (e.g. up to 3 years) in order to accelerate other consented projects.

Finally, in parallel to these reforms, we believe that the ESO and Ofgem must urgently implement reforms to how DNO-connected projects contribute to the cost of new Super Grid Transformers (SGTs).

The ESO's proposals for connections reform are a critical step in reducing connection delays. However, as flagged in Ofgem's open letter, connections reform is not a panacea.

A further policy issue holding back DNO-connected projects is the charging arrangements for new Super Grid Transformers (SGTs). Almost uniquely among distribution and transmission network upgrades, projects are often required to underwrite the entire cost of a new SGT (~£20m) in the event that other projects in their project progression drop out.

If the full cost were passed through, it would almost certainly make projects uneconomic. In addition, just the risk of this potential cost will make it incredibly difficult to finance projects with this liability.

We are aware that Ofgem is looking into this issue and that, in the CAP, Ofgem committed to further considering SGT cost apportionment (p.57 of the CAP).

We urge Ofgem and ESO to bring forward reforms to SGT charging, for example allowing DNOs to apply cost apportionment as they do with other DNO reinforcements. We believe that any new arrangements should apply equally to new and existing Statement of Works outcomes, else this would risk significantly disadvantaging advanced projects that often have planning consent and are only delayed by grid delays grid SGT costs.

Low Carbon's view on the specific questions in the Open Letter.

Question 1: Views on Ofgem's position (including reference to Annex A)

Ofgem's position:

- Ofgem believes that TMO4+ has the potential to significantly contribute to CAP objectives – predominantly by accelerating connections that are ready to connect.
 - Low Carbon agrees. We believe that the TMO4+ model would significantly accelerate viable projects.
 - We believe that the ESO's proposed "Gate 2" definition is tough but fair.
 - We agree that securing land rights is a key indicator of projects that are ready to progress, and we agree with the ESO's proposed amendments to the M3 Milestone to remove the ability to meet this through exclusivity agreements.
 - We also believe that the ESO is right to propose a front-loaded planning submission milestone (M1) as a condition of passing through Gate 2.

- In our view, one of the biggest weaknesses in the CMP376 Queue Management Milestones is that they are backloaded based on current connection date, meaning that most projects won't face milestones for at least four years.
 - We believe that the ESO is right to include measures to limit changes in a project's Red Line Boundary (RLB) beyond the point of meeting Gate 2.
 - Restricting RLB changes beyond Gate 2 will incentivise developers to only opt to meet Gate 2 once they have the final or near-final land for their project – i.e. the developer is ready to proceed.
 - Restricting RLB changes will also help the TOs to undertake siting studies for new substations, as the location of post-Gate 2 projects will be more certain.
- Ofgem supports the intention to put in place the new rules from 01 January 2025.
 - We agree. We believe that the timeline is tight but doable.
- Ofgem considers it unlikely that the proposal will fully achieve CAP objective. Action is needed both a better connections process and, for example, the TOs to more efficiently deliver network infrastructure.
 - We agree that this is important.
 - For example, siting of new substations is already becoming a key issue, as highlighted above.

Annex A:

- CAP 3.1 – Raise entry requirements:
 - Ofgem agrees that Gate 2 could be a good bar.
 - We agree.
 - Ofgem supports consideration of financial holding charges.
 - We are sceptical of financial holding charges, given that they would likely disadvantage smaller players.
 - The ESO's proposals call for tough, front-loaded obligations to submit planning applications – we believe that this is a better way to encourage projects to move quickly.
 - The cost of preparing planning applications can be millions or tens of millions of pounds. In this context, so long as a developer is proceeding with their planning application, we don't believe that an additional financial holding charge is needed. Developers will only spend millions of pounds on projects that they believe are viable.
- CAP 3.2 – Remove stalled projects:
 - Ofgem expects TMO4+ to both reduce projects holding too much capacity (capacity reduction) and to kick some out of the queue.
 - We agree with this.
 - We believe that many hybrid projects won't secure land rights and/or planning consent for one or more of the technologies in their grid connection application.
 - In this scenario, we believe that the projects should be forced to drop the technologies for which they don't have the rights and/or consents.
 - For example, if a hybrid solar-battery project only secure land rights for the battery element, then it would become battery only.
 - For battery-only projects, the ESO can apply battery-specific modelling assumptions to free up capacity for projects later in the queue.

- We believe that this measure is included within the ESO's proposals but we are keen to ensure that this is the case.
 - Ofgem believes that more stringent measures may be needed beyond Gate 2 – e.g. financial charges.
 - Again, we are sceptical of this given tough Milestones and existing security arrangements.
 - Ofgem believes it's important to kick projects out of Gate 1 if they don't progress – e.g. time limit / financial charge.
 - We don't have a strong view on this.
 - We believe that, in practice, Gate 1 is likely to be used primarily to signal the siting of projects with involvement of public bodies, for example new offshore wind farms (via the Crown Estate) and new nuclear projects (via GB Nuclear).
 - In our view, many onshore wind, solar and battery projects are likely to proceed straight to Gate 2 – especially if the ESO/TO pre-application process produces reliable results that are similar to Gate 1 offers. We don't believe that this is a problem.
- CAP 3.3 – Better Utilise existing network capacity:
 - Ofgem believes that Gate 1 projects can inform anticipatory network build.
 - As above, we believe that Gate 1 is especially relevant for offshore wind and nuclear.
 - Ofgem believes that the use of application windows and gates can improve coordination.
 - We agree.
 - Ofgem supports parallel work on modelling assumptions / including on the depth of enabling works for connections.
 - We agree.
 - We were hoping that we would have already seen existing connection dates accelerated through the Transmission Works Review (TWR), also known as the "Review of Construction Planning Assumptions". We have not seen any positive outcomes from the TWR to date, although we believe that it may still be ongoing, with updated connection dates expected in Q4 2024.
 - We support the ESO undertaking further work on modelling assumptions.
- CAP 3.4 – Better allocate available network capacity:
 - Ofgem agrees that Gate 2 could work – but it needs to be transparent, fair and equitable – take into account different types of projects and technologies.
 - We believe that this can be accomplished by setting different timelines to submit planning for different technologies and planning regimes.
 - We don't think there's merit in have a different Gate 2 criteria for different technologies, except in exceptional circumstances.
 - For exceptional circumstances, we favour the Energy Security Secretary being able to provide a letter supporting a project to meet Gate 2 without having met the standard requirements. We believe that it is right to set a high bar such as this for exemptions from the grid queue rules.
- CAP 3.5: Improve data/process, sharpen obligations and incentives:
 - Ofgem expects the ESO to work with ENA on options development and implementation.

- Per our comments above, we believe that a key risk for these reforms is the impact on DNOs and DNO-connected customers. This is the area where we believe that the ENA should focus.
- CAP 3.6: Longer-term connections process aligned with strategic planning and market reform
 - Ofgem notes the ESO's desire to future proof, including for Strategic Spatial Energy Planning (SSEP).
 - We agree that the current reforms should not preclude the introduction of SSEP. However, we note that SSEP is not currently well defined.
 - Developers/investors need confidence that, should they meet Gate 2 at the end of 2024, they won't be deprioritised late according to SSEP (unless they fail to meet their Milestones).
 - If ESO or Ofgem intends to introduce SSEP as part of the connections process, then we encourage them to retain the ability for projects not in the SSEP to secure grid connections.
 - If ESO or Ofgem intends to use the ESO's Future Energy Scenarios (FES) to guide future allocation of grid capacity, then we would encourage them to review the predictive power of past versions of the FES. Our sense is that the predictive power is probably low, although we have not analysed the FES in detail.

Question 2: Views on Ofgem's view of next steps (including reference to Annex B)

Annex B:

- Benefits/risks/impact assessment:
 - No comments.
- Consultation:
 - No comments:
- Regulatory and legislative changes:
 - As flagged in above, we think there should be regulatory changes to require the relevant Transmission Owner to undertake substation siting studies in a timely manner once a contracted project at the new substation has passed Gate 2.
- Options development and implementation plan:
 - No comments.
- Contingency options:
 - We believe it is pragmatic for the ESO to split connections reform into two CUSC modifications. This minimises the legal risk to CMP434 (prospective only) in the event that CMP435 (retrospective) is challenged.
 - We encourage Ofgem and the Government to consider what legal changes the Government could introduce to allow the application of TMO4+ to the entire queue, in the event that any legal challenges are successful.
- Prepare for reform and manage industry expectations:
 - We believe that the ESO's engagement has been good so far.

Question 3: Views on whether this proposal goes far enough?

- a. Are there any other proposals you would like to see brought forward as part of, or alongside, this reform to achieve the aim of significantly reduced connection timescales?
 - a. As mentioned in our introduction, we have three further proposals:
 - i. New obligations on the TOs to conduct substation siting swiftly for projects that have passed Gate 2;
 - ii. New measures to ensure that consented projects can't become the new zombies; and
 - iii. Reform of SGT cost apportionment for projects connecting to the DNO networks.
 - b. What obligations and incentives for the ESO and network companies would you like to see introduced alongside, or a part of, the TMO4+ proposal, to ensure the intended outcomes of better customer experience and timely connection dates are delivered? (See Annex A, point CAP 3.5).
 - a. As above, substation siting.
 - c. Do you believe additional criteria beyond readiness are needed to deliver (i) security of supply; (ii) system efficiency; (iii) strategic network plans; and (iv) the energy mix GB needs to meet net zero? (See Annex A, point CAP 3.6)
 - a. We do not believe that additional criteria should be introduced to Gate 2 at this stage as SSEP is in the early stages of development.

We are happy to discuss with Ofgem any of the issues raised in our submission.