

NGESO
Connections Reform Team
Box.ConnectionsReform@nationalgrideso.com

Dear Connections Reform Team,

Please find attached our response to NGESO's initial proposals on Connection Reform. As no consultation pro-forma has been provided, please see below our response to the relevant sections.

Consultation Questions – Please explain your rationale

Chapter	Question
3. Foundational Design Options	<ol style="list-style-type: none">1. Do you generally agree with our overall initial positions on each of the foundational design options and key variations? Are there any foundational design options or key variations that we should have also considered?2. Do you agree with our initial view that the current issues with the connections process could potentially be addressed on an enduring basis through other, less radical, and lower risk means than the introduction of capacity auctions?3. Do you agree with our initial view that the reformed connections process should facilitate and enable efficient connection under either a market-based (i.e. locational signals) or 'centralised' deployment approach (or an approach somewhere between the two), but not mandate which approach to follow?
4. Pre-Application Stage	<ol style="list-style-type: none">4. Do you agree with our initial recommendation that TMA A to TMA C should all be progressed, irrespective of the preferred TMO?5. Do you agree with our initial recommendation on the introduction of a nominal Pre-Application Stage fee, discounted from the application fee for customers which go on to submit an application within a reasonable time period?6. Do you agree with the importance of the TMA A 'Key Data'? Please provide suggestions for any other key data that you suggest we consider publishing at Pre-Application Stage.
5. Key Target Model Add-ons	<ol style="list-style-type: none">7. Do you agree with our initial recommendation with regard to TMA D (requirements to apply)?8. Do you agree with our initial recommendation with regard to TMA E (determination of enabling works), including that it is right to wait until the impact of the 5-Point Plan is known before forming a view on whether further changes to TMA E are required?9. Do you agree with our initial recommendation with regard to TMA F (criteria for accelerating 'priority' projects)?10. Do you agree with our initial recommendation with regard to TMA G (queue management)?
6. Target Model Options	<ol style="list-style-type: none">11. Do you agree these four TMOs present a reasonable range of options to consider for a reformed connections process?12. Do you think any of the four TMOs could be materially improved e.g. by adding, removing or changing a specific aspect of the TMO? If so, what and why?13. Are there any important TMOs we have missed?14. Do you think 'Submit Consent' is too early for Gate 2 in TMO2 to TMO4? If so, what milestone should be used instead and why?

Foundation Design Options

- We agree with NGESO's initial position and view for the design options put forward
- We agree that a general principle should be to discourage developers who have historically sought only to obtain the grid and land consents but not planning; such developers result in sterilising network capacity if a project is unlikely to ever obtain planning consent.
- We also agree that the options should not mandate whether a locational and centralised deployment approach is followed

- Alignment for requirements for connection applications across Transmission and Distribution is critical; e.g. requirements for 'Letter of Authority' / land exclusivity. Any deviation here could have large unintended consequences e.g. if requirements are more stringent for Transmission connections then it will result in developers seeking distribution connections which – given usual lower economies of scale for smaller projects – would mean a higher overall cost for the consumer
- We also highlight that differences in planning between Scotland and England – particularly for storage; if greater emphasis is placed on gaining planning consents in any TMO then this will reduce the attractiveness of storage projects in Scotland which is the complete opposite of what the system needs to reduce constraint costs.
- However we also would like to emphasise that given the inevitable 2 – 3 year implementation time of these reforms, NGESO must strongly highlight **the benefit** of connection reform to developers and in particular what incentive there may be to possibly delay a connection until the reform has been implemented.
 - o If there is no perceived benefit to the developer we expect that many developers will view the proposed reformed process as being far less attractive than the status-quo (assuming the 5 point tactical plan is applied) and so will race to submit many applications for connections in the late 2020s / early 2030s **before** the connection reform is implemented in 2025.
 - o This could have the perverse outcome of leading to a **further** surge in applications before the reformed process starts – that could undermine the value of the 5-point plan in dealing with the current backlog.

Pre-Application Stage

- We agree with questions 4/5/6.

Key Target Model Add-ons

- TMA-D1 (requirements to apply):
 - o We strongly support the need for developers to have a Letter of Authority (LOAs) to prevent speculative applications . However the detailed design phase must look at how this is made legally exclusive and time-limited (i.e to expire 3 months after a connection offer is made). We note this approach is very common in other countries (e.g. Italy).
 - o Where multiple LoAs exist, it has been suggested that some sort of 'conditional offer/acceptance in relation to those projects'. This solution needs close scrutiny as there is a risk of certain developers sterilising all land opportunities in certain areas.
 - o **This is a potential 'quick win' which could greatly reduce the number of applications and the ESO must look closely at how this could be implemented ahead of any other reforms.**
- TMA-F (criteria for accelerating priority projects):
 - o We support acceleration of key projects that have wider economic benefits to the consumer or network.
 - o We highlight that storage – particularly that which offers stability services – falls into this category, bringing many benefits to the wider network in the form of flexibility and optionality to the ESO that are not always received financially by the storage owner.
- TMA-G (queue management):

- We support the approach to drop Pro-active Queue Management (PQM) but retain Reactive Queue Management (RQM) and RQM+ as options for further analysis.
- We also agree that our preference is for RQM+ as it provides for wider benefit to consumers – particularly if the wider benefits of accelerating the connection of storage are considered.

Target Model Options

- We agree with these models being taken forward. There are consumer benefits to taking a strategic approach to connection designs and batching applications will allow this to be done more effectively.
- In TMO2 – 4, 'Submit Consent' should happen after 'updated offers' are accepted. It is only when a firm connection date is provided that developers are able to assess the business case, and only at that point will they accept the offer, and hence trigger planning.
- This is an important point as otherwise developers will overload the planning process by pushing to obtain a consent as soon as possible in order to get the revised connection date, or drive developers to seek out distribution connections in preference to transmission, which we do not think would be optimal in many circumstances.
- It is vital that NGENSO coordinate with the ENA to ensure that the distribution and transmission process for planning are completely aligned to avoid developers pursuing a T or D connection simply because of the conditions in which a connection date is offered.
- Has NGENSO consulted with planning authorities about the impact this proposal could have on their workloads?

Consultation Questions – Please explain your rationale

Chapter	Question
7. Recommended TMO	<p>15. Do you agree that TMO4 should be the preferred TMO?</p> <p>16. Do you agree with our design criteria assessment of the four TMOs? If not, what would you change any why?</p> <p>17. What are your views on the stated benefits and key challenges in relation to TMO4?</p> <p>18. Do you think that there is a better TMO than TMO4? Whether that be TMO1 to TMO3, as presented, a materially different option, or a refined version of one of the four TMOs we have presented?</p>
8. Key Customer and Technology Type Adjustments	<p>19. Do you agree with our views on DNO Demand in respect of the TMOs</p> <p>20. Do you have any views on the appropriate mechanism to incentivise accurate forecasting of requirements and avoid more RDC than is necessary being requested by DNOs?</p> <p>21. Do you agree with our views on the process under which DNOs apply to the ESO on behalf of relevant small and medium EG that impact on or use the transmission system, including that (under TMO4):</p> <p style="padding-left: 40px;">i) DNOs should be able to request RDC via application windows to allow them to continue to make offers to EG inter-window; and</p> <p style="padding-left: 40px;">ii) resulting offers should be for firm access until relevant EG has reached Gate 2 (at which point they can request advancement and an earlier non-firm connection date)?</p>
T/D Interface	
Directly Connected Demand	<p>22. Do you agree that directly connected demand should be included within TMO4 and that the benefits and challenges are broadly similar as for directly connected generation?</p> <p>23. Do you agree that TMO1 to TMO3 would require a separate offshore process, and that this would result in material disbenefits?</p>
Offshore	<p>24. Do you agree that TMO4 is the most aligned to the direction of travel for offshore projects? If not, why?</p> <p>25. Other than the Letter of Authority differences are there any other TMAs which have specific offshore considerations?</p>
Network Competition	<p>26. Do you agree with our views on network competition in the context of connections reform, including that TMO4 is the option which is most aligned with network competition as it includes the most design time at an early stage in the end-to-end process?</p>

Recommended TMO

- We generally agree that TMO4 is probably the preferred TMO. However we also note:
 - o TMO3 is also a good option
 - o Much depends on the parameters of TMO4 e.g. application window duration and gaps between windows. E.g. a 1 year gap seems a very long time and will lead to surges and troughs in applications. Is this the most efficient use of connection team staff rather than a steady flow of applications?
 - o We think a 6 month window followed by 6 month gap would be better?
- Our concern with TMO4 is that it only provides a nominal (meaningless) backstop connection date until planning consents are obtained. **This will put huge pressure on the planning process in order for developers to have visibility of a realistic date – which could make or break the project.**
- We note that in Scotland, storage projects above 50 MW require consent by the Scottish Government whereas in England and Wales they are usually approved by Local Authorities. This implies that large storage projects in Scotland usually incur a higher planning application fee of £150k in addition to the £150k of preparation work (i.e £300k). This compares to about £70k in E&W. **Therefore, creating the need to obtain planning consent to receive a realistic connection date will be discriminatory to all projects in Scotland.**
- We suggest an alternative could be to give – at the time of the initial connection offer – both a backstop connection date **and** ‘indicative date range’ for an accelerated connection date if planning consent is obtained.
- This would allow developers to pull projects from being progressed further if the balance of probability is that any acceleration is very unlikely *even with planning consents* or alternatively, justify the costs of proceeding with a planning application.
- At the end of each window, it would be useful if NGENSO published the details of connection dates (initial backstop and average ‘accelerated’ date) awarded within zones

around GB to allow developers to understand where there are areas where connections are particularly difficult to stop further applications.

Key Customer and Technology Adjustments

- We acknowledge the T/D interface is challenging.
- Our main concern is that the requirements for receiving an accelerated connection date are the same for both T and D connections.
- However it is not clear how letting the DNOs apply for Reserved Developer Capacity (RDC) will be efficient or economic for the consumer who will inevitably bear some of the cost of any reinforcement of GSPs. Is it expected DNOs will use their local knowledge of each GSP's potential wind/solar/land resource to anticipated capacity that is needed? If so, are they capable of forming this view given it has not been their role historically?
- We also question whether there is enough incentive for DNOs to actively use 'non-wire' solutions (e.g. DSR and local storage) to alleviate export constraints rather than applying for RDC. Whilst it has often been shown that building storage **solely** as a network asset to alleviate export constraints is not cost-effective – we believe this is a straw-man argument in that storage can also provide many other benefits when not performing a constraint management duty and these other benefits are usually not considered as they are not permitted activities within the DNO licence. Given the huge future need for flexibility *within GSPs* arising from the expected connection of EVs / heat pumps and improving economics of roof-top solar, the ESO should be resisting calls from DNOs for extra export capacity until other non-wire options have been fully pursued.
- We support the use of TMO4 to provide a more strategic approach to network design that could facilitate competition in network build which could lead to accelerated connection dates

Consultation Questions – Please explain your rationale

Chapter	Question
9. Supplementary Target Model Add-ons	27. Do you agree with our initial recommendation related to each of the TMAs within this chapter? If so, why? If not, what would you change and why?
10. Detailed Design, Implementation and Transitional Arrangements	28. Do you agree with our current views in respect of the implementation period?
	29. Do you agree with our current views in respect of transitional arrangements? What are your views on how and when we should transition to TMO4?
	30. What further action could Government and/or Ofgem take to support connections reform and reduce connection timescales, including in areas outside of connections process reform?

Supplementary Target Model Add-ons

- TMA-J (Transparency on Offer Optionality)
 - We strongly support this TMA to formalise the ability of developers to be more involved with the design selection of the networks companies. In particular we highlight how further information from the networks companies (e.g reducing a project's MW export by 'X' MW) could lead to faster connection dates as this information is often not available at the time of application (This 'optionality' could and probably should be implemented as early as the pre-app stage to minimise unnecessary design work by the Transmission Owner)
- TMA-R (Management of Unused Capacity)

We strongly support a mechanism to monitor for and reclaim unused TEC and this process must be owned by the ESO rather than the TOs to avoid any incentive of the TOs to 'turn a blind eye' to any unused TEC.

The ESO should be looking more closely at the real-time performance of generators to understand how they align with one-another to better inform network planning assumptions about coincident export across different generator types.

This also relates to the need to update the scaling factors in the SQSS for different generator types with improved granularity so that performance from generator types in different parts of the country is recognised e.g.

- Solar in Scotland is likely to have a lower effective output than in South of England so recognise this through regional scaling factors than a one-size-fits-all approach
- Storage in Scotland could have a different number of average cycles to that in the south of England and therefore may need a different scaling factor
- Furthermore, we believe that more accurately considering generators use case (24hr profiles) is also a key point in releasing further capacity (as opposed to more conventional thermal constraint analysis currently being used) and has not been explored in sufficient depth in the Connections Reform process to date

We trust that this provides useful 'food for thought' and helps inform the ESO's decisions on the next design sprint.

Yours faithfully,

Damian Jackman

Techno-Economic Lead