Connections Reform

Scottish and Southern Electricity Networks
response to NGESO consultation, July 2023

Scottish & Southern Electricity Networks

Introduction

This response solely reflects the perspectives of Scottish and Southern Electricity Networks and is separate to the broader group response from SSE, reflecting the position of ourselves as a DNO and our customers and stakeholders. With our extensive experience as a DNO, facilitating the connection of various types and scales of generation to the electricity network in the UK, we possess first-hand insights into the challenges that necessitate connections reform.

As a DNO we have tens of thousands of connections requests each year, from individual customers seeking to accommodate heat pump chargers or roof top solar, housing developers, motorway service area operators rolling out electric vehicles, through to large scale renewables, batteries and data centres. Around 30% of our current Distribution connection applications are having to go through the Transmission Impact Assessment (generation) or modification application process (demand), including <200kW zero export generation in the North of Scotland. This is leading to delays in getting offers out, uncertainty for our customers and in many cases commercially unviable offers due to the Transmission securities and liabilities distribution customers are required to put up.

Consequently, we welcome the ESO's policy consultation to move the current situation forward and remove current barriers to delivering net zero and stimulating economic growth. We have provided full answers below to the questions posed. We have two key points to make.

- The Reserve Developer Capacity (RDC) process is critical to making any of the options viable from a Distribution perspective. Many of our connection requests come from smaller parties who need to move forward quickly and don't have resources to go through multiple gates or windows – they just want an offer inside 3 months to understand if projects are viable or to press ahead with connection to build new houses or install EV charges. Given the criticality of the RDC process, we need to understand it in more detail, including how it will align to the GSP limits workstream and current week 24 forecasts; and

- We need to ensure that smaller stakeholders have an opportunity to feed into this consultation. These are not direct stakeholder of the ESO but will be significantly impacted by this process and may have been inadvertently overlooked in the connections reform engagement. In our response, our intention is not only to advocate for ourselves and other distribution network operators but also to voice the interests of our customer base and stakeholders IE local community groups, small developers etc.

Response to consultation questions

Part 3: Foundational Design Options

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?

The Foundational Design and Key Variations demonstrate NGESO's efforts to alleviate the current pressures on its process. We acknowledge that this is a crucial part of the solution. However, as we endeavour to develop a reformed Connections process that is forward-looking, it is equally imperative to consider the perspective of distribution connected customers and the system's requirements to effectively transition to a net zero energy landscape, which is most impacted by customers connecting to the distribution network. It is crucial to ensure that this work does not compromise or diminish the necessity for swift and substantial investments in network capacity.

Furthermore, the model must strike the right balance between the needs of directly connected NGESO customers and distribution connected customers. These projects play a pivotal role in providing the necessary generation capacity, supply, and system security vital for achieving our shared objective of net zero emissions.

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?

While we remain receptive to embracing transformative measures, including elements of central planning to bolster emerging technologies such as battery storage or address the system's unique locational needs, we emphasize the importance of executing such changes through a comprehensive and consistent reform approach. It is crucial to strike a careful balance between encouraging innovation and ensuring a reliable energy infrastructure while considering the interests and obligations of all stakeholders involved.

The implementation of capacity auctions would introduce a higher level of complexity into the marketplace, surpassing the challenges we currently face. The reduced visibility for a DNO to assess the feasibility of DNO-connected projects, due to limited knowledge of available capacity at the Transmission level, raises concerns. As an obligated entity to provide connections offers when requested, capacity auctions would impede our ability to fulfil this responsibility, given the uncertainty surrounding the viability of connections at the transmission level.

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?

We believe it is crucial to ensure that the steps taken to reform the connections process do not unintentionally override broader industry policies. Hence, we agree with NGESO's perspective that

the chosen process should be capable of accommodating future policy changes effectively. However, when attempting to design a process that enables such adaptability, specifically through the inclusion of TMA's, it becomes challenging to fully comprehend the implications and impacts in response to this consultation.

4. Pre-Application Stage

4. Do you agree with our initial recommendation that TMA A to TMA C should all be progressed, irrespective of the preferred TMO?

We acknowledge that TMAs A-C adhere to the standards of service commonly seen in the industry. We express our full endorsement for TMA A. We believe that this Target Model Add-on is a crucial and valuable contribution to the proposed reforms. It aligns with our vision for a more efficient and transparent energy network and reinforces our commitment to promoting advancements in the industry. With TMA A in place, we anticipate enhanced operational effectiveness and better outcomes for all stakeholders involved.

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 period?

We concur that this approach is suitable for Transmission connected customers. However, from a Distribution standpoint, we hold a different perspective. Distribution customers will be adequately addressed through engagement between Distribution Network Operators (DNOs) and Transmission Operators (TOs) via existing data exchanges, such as the week 24 data. Therefore, there should be no requirement for Distribution connecting customers to undergo pre-application engagement or pay any fees.

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

Yes, we support the endeavour to enhance transparency and streamline access to crucial information. By ensuring that all relevant stakeholders have access to the necessary data and insights, they can engage in more informed and strategic evaluations of their projects, thereby comprehensively assessing associated risks.

It is imperative to ascertain that the capacity necessary to fulfil the forecasted demand of Distribution Network Operators, uphold security of supply commitments, and accommodate embedded generation capacity, is identified and appropriately incorporated into the data and assessments required to fulfil T and D license obligations. This proactive approach should encompass a time horizon of at least the next 10 years, but preferably extend to 2050, to provide stakeholders with a comprehensive perspective spanning both Transmission and Distribution aspects.

5. Key Target Model Add-ons

7. Do you agree with our initial recommendation with regard to TMA D (requirements to apply)?

We express our agreement with the stipulated requirements to apply, namely (i) the provision of an application form and (ii) the provision of a Data Registration Code template.

However, we respectfully disagree with the notion that the payment of an application fee should halt the clock start of a project's application. In the distribution industry, the norm is to require payment of a connection offer expense, but this does not impede the progression to clock start the project. We believe NGESO should adhere to the same process, where the application fee is invoiced and due but does not hinder the advancement of the project towards clock start.

Regarding TMA D1, we acknowledge that as a DNO, we already fulfil this process for projects connecting to our network. We seek further clarification on whether this requirement must be transferred to NGESO for entry into the connections process.

As for TMA D4 and TMA D5, we find them acceptable and in alignment with SSEN's approach.

Regarding TMA D6, we believe it would be appropriate if provided for feedback before implementation. Additionally, we recommend the establishment of a formal sign-off process between NGESO and all DNOs to ensure mutual agreement on the terms of the contract.

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?

Regarding TMA E, we respectfully hold a differing perspective on the idea of awaiting the outcomes of the 5-point plan before acting. Such an approach restricts our capacity to facilitate prompt access for customer connections, particularly those that conform to the new access SCR obligations and are eligible for a derogation to P2, provided enabling works are completed.

9. Do you agree with our initial recommendation with regard to TMA F (criteria for accelerating 'priority' projects)?

Yes, we acknowledge the underlying rationale for the proposal to introduce criteria that would enable the acceleration of 'priority' projects and address the prevailing challenge of project delays caused by slower progress of others. However, devising criteria to facilitate this acceleration while ensuring an unbiased future technology mix and avoiding undue penalties on complex projects with longer delivery timescales presents a considerable complexity.

The delicate task of striking a balance between accelerating priority projects and maintaining a diversified technology portfolio demands a meticulous approach. Careful consideration, thoughtful evaluation, and collaborative engagement with industry stakeholders are paramount to navigate this challenge successfully.

Special attention is warranted in distinguishing between demand and generation projects, given their distinct characteristics. Often, demand connection applications are submitted after securing

project funding and obtaining planning permission, with infrastructure construction already underway.

On the other hand, for generation projects, securing a connection is a crucial prerequisite to obtain funding before initiating the project's development. Thus, the order of events for generation projects is reversed compared to demand projects, where connection availability plays a pivotal role in securing funding prior to commencing project development.

Therefore, whilst we agree with the concept, we believe that more time and consideration needs to be made into how this will work within the real world.

10. Do you agree with our initial recommendation with regard to TMA G (queue management)?

Yes, we agree.

6. Target Model Options

11. Do you agree these four TMOs present a reasonable range of options to consider for a reformed connections process?

Yes, we agree.

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?

We agree that adopting a gated approach is the most suitable option, as outlined in TMO2 and TMO4. However, both models present certain shortcomings that will require careful consideration to address effectively. While TMO2 focuses on the gated approach, it does not adequately address the challenges associated with coordinated design at the Transmission level. On the other hand, TMO4 aims to address this concern but places significant pressure on both DNOs and TOs, given the volume of data and applications to be managed within a limited timeframe. Additionally, it falls short in helping DNOs advise customers regarding potential connection opportunities during periods when applications are not being received by Transmission.

We welcome the prospect of a new model for making applications at the transmission level and consider TMO4 as a promising foundation. However, certain core issues in the model necessitate attention:

- Reserve Developer Capacity is a key component to the success of the model at a DNO level. RDC plays a vital role in efficiently managing distribution capacity and allowing for the smooth integration of new projects into the grid.

- The proposal to limit the connection date to a "worst case scenario" at gate 1 may present challenges for stakeholders. By restricting the connection date to a pessimistic outlook, there is a risk of unnecessarily deterring projects that could potentially be executed more efficiently. We recommend considering a more flexible approach that allows for the

inclusion of a "best view" connection date at gate 1, providing a more realistic and optimistic timeline for projects.

- The proposed application of gate 2.

Specifically, we have identified the following amendments that would be required for an improved approach:

1. Including at least two application windows annually to enhance flexibility and accommodate a broader range of projects, if the RDC is not approved as a TMA.

2. Providing a best view connection date at gate 1 to offer customers greater clarity and confidence regarding their proposed connection timeline.

3. Determining queue position based on the customers' proposed connection date at the application stage, ensuring a fair and transparent process.

4. Retaining gate 2, but without influencing the initial queue position. Gate 2 should offer customers the opportunity to become eligible for an earlier connection date, and those not meeting the gate 2 criteria would be subject to potential changes in their queue position. This approach would enable the promotion of "shovel-ready" projects.

By implementing these necessary amendments, we can create a more robust and efficient model, fostering collaboration and streamlining the connections process for all stakeholders involved.

13. Are there any important TMOs we have missed?

Apart from the enhancements we have proposed for TMO4 throughout this response, we firmly believe that the proposed Target Model Options (TMOs) offer a suite of foundational models to facilitate this stage of engagement effectively.

However, we recognize that one of the most significant challenges lies in obtaining comprehensive clarity on the practical implementation of these models. The consultation appropriately leaves various details to be collaboratively worked through, discussed, and mutually agreed upon with stakeholders. Active involvement from all parties is paramount to ensure that their perspectives and concerns are duly considered during the meticulous exploration and validation of the practical implementation.

We wish to emphasize our concern that while we acknowledge the importance of creating a process that caters to both T-connected and D-connected customers, this approach has constrained our ability to fully endorse a single TMO without the need to endorse specific TMA's alongside it. Our reservations stem from a lack of detail regarding the practical implementation of these models. Therefore, we strongly believe that it is important to develop "real-world" scenarios that illustrate how each TMO would operate in practical terms. This will enable a better-informed decision-making process.

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?

We acknowledge the concerns raised regarding the potential issues for developments and DNO applications under the proposed model.

Regarding DNO connected customer issues:

The date given at Gate 1 could present challenges for customers when submitting planning consents. If a connection date of 2030 is provided, it may not align with the timelines required for planning consents due to restrictions within planning departments. This misalignment could lead to the expiration of planning consents before a planned build-out coincides with the 2030 connection date. Customers may be hesitant to invest significant funds based on the premise of a potential earlier connection date in Gate 2.

Regarding DNO issues:

Due to the scale of acceptances received into a DNO interface, applications to NGESO often include multiple customers with limited information on how Gate 2 will be considered in such cases. For instance, if one of the three customers submitted has not achieved consents but is first in the D queue, it is uncertain how this situation would affect the release of the second stage offer.

To address these concerns effectively, it is essential to establish a clear and transparent process for handling Gate 1 connection dates and their alignment with planning consents. Additionally, clarifying how Gate 2 will be managed for applications involving multiple customers will help mitigate potential complications and provide certainty for all stakeholders involved. Open and collaborative discussions with all parties will be critical to fine-tune the proposed model, ensuring it can accommodate diverse scenarios and deliver optimal outcomes for both developers and DNOs.

7. Recommended TMO

15. Do you agree that TMO4 should be the preferred TMO?

We agree that the fundamental concept of TMO 4 is preferable; however, we believe that certain aspects of the concept require careful consideration, as detailed in our comments within question 12.

16. Do you agree with our design criteria assessment of the four TMOs? If not, what would you change any why?

Yes, we agree.

17. What are your views on the stated benefits and key challenges in relation to TMO4?

Although we recognize the potential benefits and key challenges associated with the proposal, we find it difficult to provide a definitive confirmation without a comprehensive understanding of its impact on DNO connected projects. The realization of early benefits hinges upon the successful recovery of capacity from the existing queue. Failing to do so will result in the perpetuation of

unsatisfactory connection dates in the future.

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?

Although we recognize that TMO4 may present a significant change to developers' current approach to securing a grid connection, we also acknowledge the necessity for change in the connections process at a Transmission level. We have highlighted key amendments we believe are required in question 12, and with the inclusion of these modifications, we firmly believe that TMO4 would become the preferred option, effectively addressing the concerns, and removing any detriments for the end-line customer.

8. Key Customer and Technology Type Adjustments

19. Do you agree with our views on DNO Demand in respect of the TMOs

We fully concur that regardless of the Target Model Option eventually adopted, it is imperative that the chosen approach is capable of consistent application to all relevant parties, particularly when their connection necessitates additional network reinforcement at the Transmission level. Ensuring uniformity and fairness in the application of the chosen TMO across all stakeholders is vital to establish a cohesive and effective connections process.

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?

Indeed, we concur with the necessity of enhancing our forecasted demands up to the year 2050, aligning them with the objectives of achieving net zero emissions by 2050 and meeting the decarbonization and Low Carbon Technologies targets. This refinement process should be guided by the preferences of our stakeholders and in harmony with DFES and local development plans. Additionally, as our comprehension of the adoption of LCTs improves over time, it is imperative to incorporate these insights into the forecasting process.

As for implementing appropriate mechanisms to incentivise accurate forecasting, it becomes crucial to thoroughly consider and address external influences that may impact the forecast accuracy. These external factors encompass government incentives, alterations to targets, and economic fluctuations, both upturns, and downturns. Before introducing any changes, a comprehensive understanding of how these elements could influence forecasting accuracy must be attained and accounted for in the proposed modifications.

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):

i) DNOs should be able to request RDC via application windows to allow them to continue to make offers to EG interwindow; and

Yes, we agree, however, we do wish to emphasize that our support is contingent upon receiving further information about the practical application of the chosen model. Understanding the real-world implications is crucial for our endorsement of TMO4. The implementation of Reserve Developer Capacity in conjunction with TMO4 is paramount, as it ensures equitable treatment for smaller developments seeking connections to the DNO/T network. Without RDC, smaller and medium-sized generators may face disadvantages, especially when attempting to make connections outside the gated windows.

We believe that restricting connections for small/medium generators solely to gated windows could potentially hinder progress towards net zero targets at a DNO level. As we delve deeper into the real-world application of TMO4, it becomes increasingly critical to explore how RDC can be extended to demand connections as well. While the reform document primarily focuses on generation connections, we are currently experiencing substantial constraints for our demand-connected customers within our network area. Therefore, we advocate for the inclusion of demand connections within the RDC model to address these limitations effectively, in the absence of the RDC TMA, we would face the risk of withholding essential demand infrastructure from connecting for a prolonged period, possibly up to 12 months. This could encompass crucial facilities like EV (Electric Vehicle) charging hubs and housing developments, among others.

Another key element requiring careful consideration before implementation is the interaction between the securities model and RDC. It is essential to clarify when securities become applicable—whether it is after connection customers have been assigned to the capacity. Applying securities to the total amount requested without connected customers would pose a significant business risk for SSEN.

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)?

We acknowledge our agreement with the proposal; however, we remain concerned about the incentivization for developers to submit planning based on a "worst case" connection date at Gate 1. To address this, we recommend considering a change to provide a "best case" date within Gate 1 as per our comments in question 12. We have concerns regarding the potential interaction of this approach with the existing strategic connection group for Transmission and Distribution (T/D) limits. Regrettably, no comprehensive information has been furnished concerning the implications for customers receiving advancement through non-firm routes, clarification on this matter is essential to make well-informed decisions. Connections reform should take account of recent Access SCR changes at a distribution level associated with providing customers with curtailed non-firm offers, where reinforcement is required.

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?

We are inclined to concur that subjecting demand customers to the same process is crucial to establish equitable conditions for all stakeholders. As we consider a batched assessment of applications as a potential solution, it is imperative that all applicants within the relevant Application Window are duly involved and factored into the final network design. This approach holds particular significance, primarily because an application seeking to establish a substantial demand source could

be highly relevant in terms of network asset requirements when evaluating concurrent applications, such as nearby generation or storage projects.

23. Do you agree that TMO1 to TMO3 would require a separate offshore process, and that this would result in material disbenefits?

At this juncture, we maintain a neutral stance and refrain from expressing agreement or disagreement. However, it is our firm belief that any divergence in approach should not adversely affect or disadvantage other Transmission or Distribution connections or customers.

24. Do you agree that TMO4 is the most aligned to the direction of travel for offshore projects? If not, why?

At this juncture, we maintain a neutral stance and refrain from expressing agreement or disagreement. However, it is our firm belief that any divergence in approach should not adversely affect or disadvantage other Transmission or Distribution connections or customers.

25. Other than the Letter of Authority differences are there any other TMAs which have specific offshore considerations?

At this juncture, we maintain a neutral stance and refrain from expressing agreement or disagreement. However, it is our firm belief that any divergence in approach should not adversely affect or disadvantage other Transmission or Distribution connections or customers.

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?

Yes, we agree.

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?

Due to the multitude of Target Model Add-Ons, each offering various options, a comprehensive assessment of their impact on the process becomes challenging without a clear understanding of the chosen Target Model Option (TMO). Therefore, we recommend revisiting the TMAs once the selected TMO is determined and actively progressing. This approach will provide the necessary context for a thorough evaluation of how the TMAs will influence the overall connections process.

While we acknowledge the complexity of fully grasping the implications of most TMAs, we wish to express our lack of support for the recommendations on the following:

TMA I/N - We disagree with an approach that grants the ESO the power to reject applications. Such a process could raise concerns about anti-competitive practices and potentially favour larger developers over smaller entities.

TMA R - We believe that this concept warrants deeper exploration and should not be overlooked. As a collective, we ought to consider not only the unconnected capacity in the system but also the utilization of connected capacity. The RDC concept's approach to removing unused capacities from DNOs is commendable, and we advocate extending this concept to TMA R as well.

10. Detailed Design, Implementation and Transitional Arrangements

28. Do you agree with our current views in respect of the implementation period?

We acknowledge and appreciate NGESO's recognition of the importance of stakeholder input and challenge in shaping and implementing Connection reform. When the need for reform is clear, we fully agree that prioritizing the expeditious implementation of these changes is essential.

To ensure a swift and efficient process, we strongly advocate for promptly engaging the industry. By doing so, we can make substantial strides in implementing the necessary reforms in a timely and well-coordinated manner. This approach aligns with our shared objective of driving positive change and achieving our mutual goals for the energy sector.

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?

The current consultation lacks clarity on the matter of existing applications within distribution yet to be submitted to Transmission and how they would be managed. We firmly believe that providing detailed information on how such scenarios will be handled is essential. Greater certainty surrounding the extent and potential consequences of this Connection reform work is crucial for project investors.

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?

The challenges around connection constraints can’t be solved by industry alone. As highlighted in our response to Ofgem’s connections reform open letter, we need Ofgem and Government to set a clear policy direction which connections policy can then align to. At present there are several separate policy reform programmes underway – REMA, Local Energy Institutions, DSO governance, Planning Reform which all have a fundamental impact on connections policy but are running to separate timelines and governance which makes co-ordinated decision making challenging.