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Email to: Box.ConnectionsReform@nationalgrideso.com

3rd August 2023

Re: National Grid ESO Connections Reform Consultation

About RenewableUK
RenewableUK's members are building our future energy system, powered by clean electricity. We bring them together to deliver that future faster; a future which is better for industry, billpayers, and the environment. We support over 400 member companies to ensure increasing amounts of renewable electricity are deployed across the UK and to access export markets all over the world. Our members are business leaders, technology innovators, and expert thinkers from right across industry.

RenewableUK welcomes the publication of this consultation and the opportunity to respond. There is wide consensus across the sector that the current connections process is no longer fit for purpose, and we are happy that this consultation reflects a significant and detailed piece of work that has been undertaken by the ESO to ensure that the new process is an enabler, rather than a barrier, to the UK achieving net zero.

Overall, RenewableUK is supportive of the reformed process that the ESO sets out in this consultation. However, there are a number of key dependencies that must be addressed in order for the new process to be a success:

- **Transitional period.** The connections queue as it stands already contains more capacity than is required to meet all of the FES scenarios, and the ESO estimates that up to 70% will never energise. CUSC modification CMP376 will attempt to introduce queue management into the connections system but could take 5 years to be fully implemented; this is too long to meet the UK's decarbonisation goals. As such RenewableUK and our members are ready to work with the ESO, Ofgem and government to implement CMP376 in a way that addresses the current queue without unduly penalising viable projects. It is vital that the ESO 5-point plan and ENA 3-point plan are also delivered swiftly.
- **Administrative burden for new process.** The proposed new connections process introduces a number of new steps that will need to be carefully managed to avoid delay. As such we are calling for the ESO to be fully resourced to ensure delivery within their stated timeframes, alongside sharp incentives and penalties for failure.
- **Preferred Target Model Option TMO.** We support the ESO's view of the preferred TMO, but there must be further detail on certain elements, such as criteria for priority projects and further

consideration of structural elements such as gate and window timing, treatment of embedded generation and the ability of projects to progress ahead of others in earlier batches.

- **Whole system planning.** The reformed connections process must be compatible with and complementary to the upcoming CSNP to enable holistic network planning. ESO must work with all stakeholders to ensure alignment, as well as being cognisant of the upcoming recommendations from the Electricity Networks Commissioner.

Please see our detailed answers the consultation questions in full below.

Yours sincerely,

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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?**

RenewableUK welcomes the detailed breakdown of each option as well as the processes followed to reach decisions on each foundational design option. We agree with the ESO decision on the foundational design options as set out in the consultation document.

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?**

We agree that the ESO should attempt to address the current issues with the connections process without introducing capacity auctions. Capacity auctions would increase risk for developers and therefore discourage investment and drive up costs to consumers.

However, the issues on the current queue are severe and worsening. For the connections reform set out in this consultation to be a success, there is a clear need for decisive action from the ESO, supported by Ofgem and government, to tackle the current connections queue. The generating capacity in the current connections queue already exceeds any of the scenarios set out by the ESO in their most recent Future Energy Scenarios. Without this decisive action the reformed process, however well designed, will not deliver on the aims of this consultation to facilitate a streamlined and efficient connections process. If the enduring process inherits a massive backlog of contracted background that entered through the current system, it will not be able to have any meaningful effect and connections will continue to be a significant barrier to decarbonising the energy system by 2035 and achieving net-zero by 2050.

RenewableUK is ready to facilitate interaction between our members and the ESO, Government and Ofgem to help devise a process to tackle the current issues on the connections queue, in order for the reformed process to be as effective as possible going forward.

We note that the Spanish TSO Redeia has implemented capacity auctions as part of a number of measures taken to deal with issues in their connections queue, including pausing the offering of new connection agreements and requiring projects to meet a number of milestones to keep their connection contract. We do not believe that this process should be repeated in the UK as it has resulted in delays to delivery and prevented viable new projects from submitting an application. However, it may be useful to take lessons from the Spanish approach and other countries that have undergone a connections reform process to understand and help inform the approach in the UK.

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 agree that the connections process must be fit to enable changes to the deployment approach – whether market based or centralised. In particular, the connections process should inform and be informed by the upcoming Centralised Strategic Network Plan (CSNP) process to facilitate holistic and strategic network planning, including the potential for anticipatory "connection hubs" that anticipate future connection needs, as well as existing demand.

However, whilst we agree that a reformed connections process should facilitate any future changes in market arrangements, we would like to reiterate our concerns with a potential move towards Locational Marginal Pricing (LMP). RenewableUK's position is that the scale of benefits from introducing nodal or zonal markets may be relatively modest, at least when compared against an enhanced status quo, and is unlikely to outweigh the costs resulting from the risks and challenges. The impacts of locational pricing on the cost of capital and investor confidence should be a fundamental consideration. There is a serious risk of an investment hiatus in new renewable generation which would jeopardise the UKs legally binding net zero targets. Developer certainty is needed to mitigate the risks that a higher cost of capital, which could increase the costs to consumers and delay new generation. If it is not possible to provide this certainty, then generators should not be exposed to unpredictable LMP price signals because they would have no realistic way of either responding to the signal or managing the price risk. There is limited evidence that LMP would significantly affect the siting decisions for both generators and demand side end-users for electricity. Factors such as wind resource, planning regulations, seabed leasing, and grid connection are much stronger siting signals than price.

LMP also creates a postcode lottery for consumer prices. Scotland, Northern England, Northern Wales will likely have much cheaper prices than most of the UK. Areas located near a node in proximity to a large gas or coal plant will, by contrast, face massive price increases. The unequal distribution of prices undermines the principles of a just transition – a fact that is further exacerbated by the absence of democratic processes in the current push for LMP. Furthermore, a LMP could feature high levels of curtailment costs which would be passed on to consumers and generators.

<u>Pre-Application Stage</u>

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

We agree with the ESO's recommendation. It is critical that developers seeking to get a connection are able to access high quality data as early as possible to help inform their application, as this will improve the quality of applications and reduce the risk of developers submitting multiple speculative applications as a means to get the best connection date for a project. RenewableUK's 'EnergyPulse' digital platform contains a detailed overview of the energy project pipeline for the UK, we would be happy to engage with the ESO to support and inform the pre-application process.

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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?**

We support the ESO's initial recommendation.

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.**

We agree with the importance of TMA A – please also refer to our response to Q4. It is important that the ESO provides more detail as to what data will be available as currently the TMA is not clear as to what data will be available, when it will be available, how regularly it will be updated and how it will be accessed. An example of a useful piece of data that would help inform prospective projects is a 'connections heat map' showing where constraints on the system are at their worst and where the system is less constrained.

Key Target Model Add-Ons

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

We agree with the ESO's recommendation. However – this additional process must not lead to delays due to inefficiency or under resourcing. The proposed new connections process set out in this consultation will introduce a number of new processes that will be resource intensive and without proper resourcing and sharp incentives for delivery within clear and reasonable timelines, the new process will not be an enabler but a blocker for net-zero.

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?**

We agree with the initial recommendation, however the 5-point plan must be implemented and its impacts addressed swiftly, as the issues that TMA E is looking to address are only growing in severity in the interim period. We also reiterate our belief that there should be strong links between the connections process and CSNP, in order to enable investment ahead of need and speed up the end-to-end grid development process.

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

RUK agrees in principle that 'priority' projects should be able to get accelerated within the connections process. However, we are concerned that the criteria for selecting priority projects in TMA F are not clear. As such we cannot agree in full with the statement currently.

- F1: more detail is required before we would be able to give a view, particularly how this would interact with the CSNP and planning regime.
- F2: we would require the ESO to provide clearer evidence of the criteria used to determine critical operability assets. We would suggest Net Zero considerations be central to this determination process given the FSO's legally binding obligations to deliver the UKs Net Zero targets. Net Zero impact could also be employed as a criteria in the RQM+ process, although this would require transparent and quantifiable benchmarks.
- F3: please refer to Q10.
- F4: please refer to Q2.

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

We agree that reactive queue management plus (RQM+) is the most sensible option with regard to TMA G. However, to fully endorse this model we would require greater detail around TMA F as highlighted in our response to Q9. We note that queue management is currently under consideration by Ofgem as CUSC mod CMP376 – we urge that there is a swift decision from the regulator as the connections queue is continuing to grow exponentially and action is needed to address it as soon as possible.

CMP376 and how it is implemented will form a key feature in the new connections process. As such it is vital that CMP376 facilitates a real dynamic queue management process and allows projects that are closer to completion to progress quicker.

Please also refer to our answer on Q2 – RenewableUK are happy to support engagement with industry on queue management principles.

Target Model Options

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

We welcome the detail with which the ESO has laid out its target model options (TMOs). We are happy that the four TMOs presented represent a reasonable range of options for consideration.

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 have provided commentary on potential improvements in Q14 & Q15.

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13. Are there any important TMOs we have missed?

No.

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 believe that there could be value in the second gate being later in the process e.g. at the achievement of consent. However, this would only be a favourable option should the ESO, TOs, Ofgem and Government rapidly and significantly expand their commitment to investment ahead of need on the grid beyond the current 'ASTI' protocols to encompass all aspects of grid development.

Preferred TMO

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

We provisionally agree that TMO4 should be the preferred TMO. However, this is contingent on there being sharp incentives for delivery. The new process introduces additional work for the ESO by adding a second gate, as well as the introduction of the application window being a potential bottleneck which could lead to large amounts of administrative work to be required from both developers and statutory bodies all at one point in the calendar.

Should the process not run to the timelines set out be the ESO, there is a significant risk of cumulative buildup of applications overwhelming the system. As such we are calling for sharp incentives for the ESO to properly resource the connections process as well as to deliver within clear timelines.

The annual cyclical nature of the process could also act as a blocker to smaller projects that are more agile and able to progress quicker than would be possible within an annual cycle. There may be benefit in increasing the number of windows within the process or shortening the gap between the windows. ESO should conduct a regular review of the reformed process once implemented to ensure that it is not holding up projects that are able to progress faster.

We also believe that there is merit in allowing dynamic queue management between connection batch windows, rather than solely with each batch. The current proposed design means that there is the possibility of shovel-ready projects in a later batch being held up due to projects in the previous batch not progressing faster than their long-stop connection date.

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

We broadly agree with the criteria set out to assess the four TMOs. However, we see value in additional criteria being used to measure the TMO's ability to deliver a net zero energy system.

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

We agree that TMO4 represents the TMO most likely to facilitate network design principles, however this is also contingent of there being a clear interaction and statutory recognition between the connections process, CSNP and the planning regime.

We believe that the interim period between the decision on the new model for connections and implementation represents a significant risk. If the implementation period is too long and the interim actions to get control of the connections queue as it currently stands, then the new process will inherit a system that is already out of control and will not provide any material benefit.

We also have concerns about how the process will be resourced and managed. While TMO4 looks like a positive change on paper, it introduces additional steps and administrative burden to the ESO, as well as mandating that all connection applications will be reviewed simultaneously, which creates a natural bottleneck in the process where a large amount of work will be required to clear. Should the process not be properly resourced or delivered, miss the 6-9 month timelines set by the ESO and offers not be given for one tranche of applicants ahead of the next application window, we could see a 'snowballing' effect where large numbers of connection applications would be added on to an already overburdened system.

In the Spanish market, the introduction of milestones to the connections process has created a large additional administrative burden on statutory bodies, which has resulted in delays. As such we believe it is vital that the ESO (as well as statutory bodies that will be relevant to meeting milestones within queue management) is provided with adequate resources to manage the new process alongside sharp incentives for delivery including clear timelines and significant penalty for missing deadlines within the process.

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?**

We believe TMO4 is the preferred TMO.

<u>Transmission/Distribution Interface</u>

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

We agree that the TMO should apply to new demand requirements i.e. where a new demand requirement is identified, such as a new Grid Supply Point, or where there is an additional demand requirement at an existing GSP which then triggers new infrastructure considerations.

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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?

DNOs need to be given definitive guidance on examples where non-Relevant Embedded Generation does not need to be included in the process at all. There is a CUSC allowance for sites which do not already have generation to be swiftly approved up to 1MW in zones that are congested, but some DNOs are deeming sites which already have some generation (but the requested additional generation would not exceed 1MW) to need to go through the full Statement of Works process with a likely connection date well in the future. This is counterproductive and is preventing some sites from more effectively utilising their assets in a way which could increase flexibility and support constraint management.

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 which impacts on or uses 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 inter-window; and

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 agree with the principle of 'inter-window' arrangements for EG, however the reality at the current time the ability of DNOs to implement RDC requests is limited due to capacity constraints. There should be a clear focus on implementing the ENA's 3-point plan to help alleviate this issue.

We do not agree with the second point of the question. The need to wait until the second gate for EG to request temporary non-firm access is unnecessary and may needlessly delay easily deployable generation to support industrial decarbonisation and grid flexibility.

<u>Directly Connected Demand</u>

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?

No comment.

Offshore

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

We agree with the view.

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

We agree that TMO4 is the most aligned with the direction of travel for offshore projects. This should include and facilitate features such as only one project being able to receive a connection offer for a specific seabed leasing area, and CfDs being included as a part of the leasing process.

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

No comment.

Network Competition

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?**

We agree that TMO4 is most aligned with network competition and that as this is planned by Ofgem it is important that the preferred TMO is compatible with competition models. However, we believe that the potential delays caused by running a competitive tender and barriers to large scale procurement introduced by a competition model mean that it may not be an appropriate model in the current context.

Supplementary Target Model Options

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?**

No comment.

Detailed Design, Implementation and Transitional Arrangements

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

As previously stated in Q17, we believe there are significant challenges associated with the implementation period. It is important that the interim actions undertaken on connections such as the ESO's 5-point plan, ENA's 3-point plan and CMP376 deliver the mitigations required to get the current connections queue under control, so the new process inherits a queue that is manageable and will be able to reflect the new connections principles.

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RUK and its members are ready to work with the ESO, TOs, Ofgem and Government to tackle the current connections queue, particularly around effective implementation of CMP376.

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?**

We note that the ESO state that implementation of queue management could take 5 years or more to be fully implemented into existing contracts if only applicable to new contracts or those that apply for modification. We do not believe that this will provide the pace of change to the current queue necessary for the benefits of the new process to be realised in time for the UK to meet its decarbonisation targets.

RUK would welcome discussion with the ESO on how the existing queue can be managed to ensure that projects are not unduly penalised in the queue as CMP376 and other reforms are implemented, alongside increased leadership from government on this topic, including the publication of their 'Connections Action Plan'.

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?**

Transmission Delivery – speeding up transmission delivery solves the physical problems that lead to a long connections queue by adding more capacity to the system. Currently new transmission lines are taking 8-12 years to deliver, which is not fast enough to provide new network capacity in time. Ofgem's ASTI programme has been a welcome change in approach and should be seen as the basis for a lasting regulatory process.

Holistic Network Design (HND) – the HND was supposed to identify and accelerate the delivery of a more coordinated offshore transmission network and associated onshore works. Delivery of the HND and follow up exercise will also ensure that the UK meets its target of 50GW offshore wind by 2030, as well as taking a lot of capacity out of the queue and on to the grid. However, developers are still waiting for updated connection offers and in the HND Follow-up exercise Celtic Sea developers are still waiting to see initial designs, while progress in the ScotWind projects has been subject to delay. There is also a role for Ofgem and industry to help develop a framework for offshore coordination and Anticipatory Investment (AI).

Investment ahead of need – the government's draft Strategy and Policy Statement (SPS) calls for the Future System Operator (FSO) to produce a Centralised Strategic Network Plan (CSNP) that will facilitate network investment delivered ahead of need. For this to work in practice, there must be clear indication from both government and Ofgem that this investment will not be disallowed at a later point. By having grid capacity ready ahead of time, renewable energy projects will be able to

plug in immediately rather than having to wait for new infrastructure to be built in order to connect. While technically there is currently room within their licences for the TOs to deliver ahead of need, in practice the risk of cost disallowances means they are unable to work at risk. As such Ofgem should be clearer as to how they will facilitate investment ahead of need.
Ofgem remit reform – RenewableUK have welcomed the upcoming change to Ofgem's remit to include net zero as part of the current Energy Bill. Ofgem should give thought as to how this additional area of focus can be used as a statutory enabler to deliver a decarbonised network, as well as a focus on system wide and longer-term benefits, beyond short term costs. A new approach to regulatory approvals, based on regulation for net zero, could positively contribute to all of the issues that cause long delays to connections. We are continuing to engage with Ofgem through the Future Systems for Network Regulation (FSNR) process to share the industry view.

Connections Action Plan – Government has indicated that they are planning to release a 'connections action plan' at the end of the summer. This should focus on the interactions between the different bodies involved in the connections process and ensuring that they give the connections process proper weighting within the network planning and regulatory approvals process so as not to duplicate work for applicants.

Distribution Network Reform – the Electricity Networks Association (ENA) has introduced a 3-point plan aimed at helping manage the connections queue at the distribution level. It is vital that the queue is addressed at both transmission and distribution level and the Distribution Network Operators (DNOs) must participate fully in the connections reform process.