Executive Summary

National Grid Group response to Ofgem Early Competition Consultation

14 September 2021

On behalf of National Grid Group, we welcome the opportunity to respond to Ofgem's consultation on its views on early competition in onshore electricity transmission networks and the engagement with Ofgem and ESO on the ESO's Early Competition Plan (ECP) work to date. We continue to support the introduction of competitive delivery of onshore transmission networks where benefits for consumers can be realised; early competition in particular should allow new ideas to be brought into network capability development. However we fear that the detail of the proposals contained within this consultation, or yet to be worked through, will not deliver benefits to consumers.

The timeline for introduction of early competition also needs to be considered as the UK has ambitious decarbonisation targets which require investment in energy infrastructure at pace and scale today, particularly for the 40GW offshore wind 2030 target. Many of the onshore network reinforcements required to support this 2030 target could quality for early competition in the current scope defined in this consultation. Applying competition to these projects would put at risk the delivery timelines associated with this already challenging planning and construction challenge – these projects typically take circa 10 years to be delivered. **We believe that competition should not be applied to network projects required to support the government's imminent target of 40GW of offshore wind by 2030** to enable the target to be met most efficiently for consumers.

This letter sets out our key points in relation to the consultation proposals, with question responses in the appendix.

Early competition development: proposal details for 'new' projects

We support the application of early competition to 'new' projects and believe that it could drive innovation and efficiency for the consumers. We have a number of views on the detailed proposals included in the consultation and referencing both the ESO's Early Competition Plan work to date and the pathfinder projects (current and future):

- **Uncertainty on qualification criteria:** With no clear criteria proposed by which network capability needs can be assessed against to determine whether they qualify for the early competition process (in contrast to the clear criteria proposed in relation to late competition), this leads to uncertainty over solution requirement and delivery responsibility, which ultimately risks unnecessary delays being introduced to delivery . For those solutions that ultimately end up being delivered under the existing regulatory contracts, this also is likely to incur additional costs due to missed opportunities to leverage supply chain, outage or resource efficiencies. We have provided some views below on the criteria and welcome the opportunity to work with Ofgem and the ESO to refine the criteria.
- **Uncertainty on the needs case:** The consultation states that passing the ESO's proposed certainty criteria – of inclusion in two FES scenarios – is not a commitment to invest, however we expect bidders, and their respective supply chains, will require this commitment in order to produce a firm tender proposal that does not price in the risk of uncertain commitment.
- **The undefined cost benefit analysis (CBA)**: It is unclear how it is proposed that a full CBA could be conducted that would appropriately recognise whole life costs, change in risk profiles, lost opportunities for the capture of supply chain efficiencies and the impact of any delivery delays on consumers. In addition it is unclear how different tenders will be compared – in addition to the proposed cost, risk (e.g., risks of cost change and/or delay) and reward (i.e., overall benefits to consumers) are important and could be very different with different proposals. We welcome further clarity on this area.
- **Unclear how this fits with the current network planning process:** The process for early competition needs to be defined. We welcome further engagement to define the optimal processes for early competition.
- **Lack of clarity on what is required of incumbents and how this will be funded:** We agree that incumbent transmission operators should have ring-fenced bidding teams to enable incumbents to participate in early competition to ensure full options can be considered when selecting solutions in best interest to consumers. We also recognise that there will need to be a further role of incumbents to support the introduction of early competition. We believe that these additional roles and responsibilities of incumbent transmission operators should be clearly defined, recognised, and funded in price controls. We welcome the opportunity to work with Ofgem and the ESO to define these roles in more detail, and the appropriate funding, as we believe there are a number of areas where incumbent transmission operators can help support the introduction of early competition. These areas include: data provision and response to queries on a level playing field to all bidders,

support in identifying initial needs cases, identifying areas where compliance requires review and potential modification, and provision of information on the scope and cost of work required to the existing system to accommodate the proposed solutions.

- **Unresolved issues with current pathfinders:** Whilst we appreciate the ESO's approach of incremental development of the pathfinder projects, there are concerns that exist with the current approach that have not been solved on a robust basis e.g. the interaction with the connections regime, and the approach used to assess competitive bids against regulated contract counterfactuals. We believe these issues need to be addressed before expanding the regime any further. Please see Appendix 2 below for further information.

Early competition development: application to asset replacement

We do not support the application of competition to asset replacement work as we believe it results in a suboptimal solution for consumers, with increased cost, complexity, and risk to safety and reliability of the system. We also think there is limited scope for innovation in terms of asset replacement, and so limited if any benefit from competition for replacing these assets. (The competitive pressure on the supply chain already exists via the tendering processes that asset owners undertake).

In order to deliver a reliable system and manage operational risk on behalf of consumers, the asset manager must take individual reliability decisions that take into account: the health and safety of the system, system access restrictions, and how to balance the reliability of the asset with that of the wider asset family and the system as a whole. If asset replacement work is competed, it would restrict the ability of asset owners to take all these considerations into account to deliver the most efficient, safe, and reliable asset health management for consumers.

Introducing multiple layers of ownership and control would also lead to confused accountabilities in the event of system issues or even complex day to day routines such as switching, which increases risk to consumers. There are also multiple practical issues – such as access to third party owned assets and land easements (etc.) – which have not been considered here and we believe are legally complex to resolve. We therefore do not support the application of competitive delivery to asset replacement works.

Roles and Responsibilities

We broadly agree with the roles and responsibilities proposed for network planning, procurement, licence provision, and contract and payment counterparties. It is critical that these roles and responsibilities are clearly defined for all organisations – including the ESO, Ofgem, incumbent TOs, and potential bidders – to ensure that competed projects are not delayed by unnecessary uncertainty. It will also be important to ensure that each organisation has the appropriate skills and capabilities ahead of providing new, or enhanced, roles and responsibilities with respect to early competition. For example, it is important that the party responsible for selecting the preferred bidder has the capability to carry out a robust assessment.

Given BEIS and Ofgem are also currently consulting on the potential establishment of a Future System Operator (FSO), it will be important to first determine the future governance structure, and then review the appropriate competition roles and responsibilities across parties and ensure that the right skills and capabilities are in place.

It will also be important to consider who is responsible for operational integrity of the network and ensure that the obligations, resources, and capabilities are appropriately placed. Early competition is likely to result in multiple owners of an integrated network resulting in multiple handoffs. Obligations of existing transmission owners therefore requires review when considering a world where TOs have less control over planning the overall network.

Legislation is required for early competition

National Grid believes that early competition mechanisms should not be introduced in the absence of supporting primary legislation. We acknowledge that Ofgem has a general power to grant new licences for electricity transmission activities, but those powers can only be exercised in appropriate circumstances, and that is not the case here. Specific legislation is required to address the complex interaction and interfaces between licensees which will arise from the introduction of competition to onshore electricity transmission, and to amend statutory obligations imposed by the Electricity Act[1] to reflect those issues, in order to ensure that consumers remain appropriately protected. Such an approach would be consistent with that taken in relation to OFTOs and CATOs, where legislation was considered by government as both appropriate and necessary in order to accommodate the modalities and complexities of these new arrangements. We are of the view similar considerations apply in this case.

In particular, the consultation references exploratory work being conducted by NGESO in relation to introducing a pre-legislative competition mechanism through the expansion of Pathfinders. We do not think that this is an appropriate mechanism to facilitate the grant of transmission licences. The Pathfinders scheme operates in a substantially different context and is concerned with providing non-network solutions and services to transmission system needs. We are of

[1] Such as the statutory obligation imposed by s. 9(2)(a) of the Electricity Act 1989

the view that any procedures regulating the grant of early competition transmission licences must be carefully considered and put on a statutory footing in order to ensure consistency with the broader system of electricity transmission applications, and with the current processes for scrutinising licensees in order to maintain protection for consumers.

We welcome the opportunity to continue to work with Ofgem and the ESO, along with wider market participants, in order to collaboratively develop arrangements that will allow for the promotion of innovation and efficiencies whilst delivering benefits to consumers.

Appendix 1 – responses to the questions asked in the consultation

CHAPTER 3: ESO'S EARLY COMPETITION PLAN

Question 1: Do you agree that the continued development of the arrangements to allow early competition in electricity transmission represents good value for money for consumers?

We continue to support the introduction of competitive delivery of onshore transmission networks where benefits for consumers can be realised.

We agree that early competition should allow new ideas / innovation to be brought into network capability development and can provide benefits for consumers. However, there are details of the proposals contained with this consultation that need to be worked through; and we fear that, when worked through, the benefit to consumers may be eroded in areas.

We do not support the application of competition to **asset replacement** work as we believe it results in a suboptimal solution for consumers, with increased cost, complexity, and risk to safety and reliability of the system. We also think there is limited scope for innovation in terms of asset replacement, and so limited if any benefit from competition for replacing these assets. (The competitive pressure on the supply chain already exists via the tendering processes that asset owners undertake).

- In order to deliver a reliable system and manage operational risk on behalf of consumers, the asset manager must take individual reliability decisions that take into account: the health and safety of the system, system access restrictions, and how to balance the reliability of the asset with that of the wider asset family and the system as a whole. If asset replacement work is competed, it would restrict the ability of asset owners to take all these considerations into account to deliver the most efficient, safe, and reliable asset health management for consumers.
- Introducing multiple layers of ownership and control would also lead to confused accountabilities in the event of system issues or even complex day to day routines such as switching, which increases risk to consumers. There are also multiple practical issues – such as access to third party owned assets and land easements (etc.) – which have not been considered here and we believe are legally complex to resolve. We therefore do not support the application of competitive delivery to asset replacement works.

We will also be responding to BEIS competition consultation, due end of October, on the overall benefit of competition to consumers and important considerations to factor when determining when, where, and whether, to apply competition to onshore electricity networks.

In the meantime, given the RIIO-T2 delivery commitments for National Grid Electricity Transmission (NGET) – and the need to co-ordinate across the supply chain, resources, and outages to efficiently deliver these commitments – NGET needs to progress on the basis that work will fall to it.

CHAPTER 4: IDENTIFYING WHICH PROJECTS ARE SUITABLE FOR EARLY COMPETITION

Question 1: Do stakeholders have any views on how a very early competition could be accommodated within the network planning process without having a detrimental impact on the planning of the rest of the network, or whether there are any specific network situations where a very early competition could be run for a solution without it having a detrimental impact on the planning of the wider network?

We expect that a very early competition would be complex to run in reality while ensuring the overall system development remains economic and efficient.

The complexity to do this shouldn't be underestimated and we have seen from recent Pathfinder processes the challenges in isolating one requirement from the broader changes happening on the system in a given area. For example, Harker was included as a potential location for connection by Pathfinder service providers but the asset replacement plans for NGET meant that this location would not be possible in the timescales required for the Pathfinder solution.

Question 2: Do you agree with our assessment of the ESO's proposed process for defining the technical scope of a tender under an early competition?

We have previously provided feedback on the limitations of the NOA process and potential remedies (our previous response is attached). We are concerned with the fact that projects such as large asset replacements could be competed as they may be incorporated into NOA in the future (see our comments on 'separability' below). We welcome Ofgem's comments about early competition arrangements being adjusted accordingly, however, there is limited information on what that adjustment would be and how the technical scope would cover. We would appreciate further clarity on this point.

Another important consideration is the duration of the requirement or need. For example, on Pathfinder projects it has been a significant challenge to understand the analysis that has been done to underpin the duration of the need being tendered. Understanding the duration of the need is critical to ensuring the right overall solution is provided. Ignoring the potential need, benefit and cost beyond the initial tendered period (e.g., beyond ten years) risks leading to greater costs in the long term for end consumers. Please see appendix 2 for additional information on the challenges and learnings from Pathfinder projects.

Question 3: Do you agree with our assessment of the ESO's proposed criteria for early competition? Specifically, do you have any views on whether: - there is a need for a 'high value' criterion? - 'new' and 'separable' are necessary or appropriate as specific criteria for identifying projects for early competition?

We believe the '**new**' criteria should be present, and that asset replacement/health work should not be included (see response above).

On the '**high-value**' criteria: The appropriate balance needs to be made between applying too high a threshold versus opening up too much to competition that the costs of running competition outweighs any potential benefit. Early competition should enable innovation and efficiency and we

believe that the highest benefits are likely to come from competing the highest cost projects. We think it would be most sensible to focus on higher value projects as a starting point, and potentially reducing the threshold over time, to deliver the greatest benefits to consumers.

The definition of **'separable'** is not currently acceptable and requires further work. We are supportive of competition only where clear ownership boundaries and responsibility can be defined.

The LOTI projects for new assets within NOA are a good indication of potential CATO projects and it's these projects seem to have clear ownership boundaries. However, there will remain complexities e.g. an existing substation already has a clear ownership boundary and competing a high number of assets within substations will increase switching and maintenance activities while blurring the lines of obligation for owners. We therefore do not see a consumer benefit if assets with a clearly defined substation ownership boundary are competed.

Increasing the volume of TO's owning assets within an existing substation could cause increased operability challenges (coordination of switching, maintenance, access, safety, asset management etc.) which could impact the reliability of the network (incl. black start processes). Therefore, any cost benefit for consumers from competition would be lost if the network reliability is impacted.

CHAPTER 5: ROLES AND RESPONSIBILITIES WITHIN EARLY COMPETITION

Question 1: Do you have any material concerns about the ESO's expertise, incentives, or independence, should they be appointed to carry-out the Procurement Body role for early competitions?

We broadly agree with the roles and responsibilities proposed for procurement. It is important that the party responsible for selecting the preferred bidder has the capability to carry out a robust assessment. Given BEIS and Ofgem are also currently consulting on the potential establishment of a Future System Operator (FSO), it will be important to first determine the future governance structure, and then review the appropriate competition roles and responsibilities across parties and ensure that the right skills and capabilities are in place.

Question 2: Do you agree with Ofgem's proposed roles?

We agree with the roles proposed as they are already well established by the current Parties and should continue. However, further clarity is sought on the Procurement Body and Network Planning Body's roles and responsibilities.

Question 3: Who should undertake the network planning body role? What role should TOs play in network planning?

TOs should be involved in network planning, though we appreciate there maybe concerns from market participants of having TOs involved in the process. As such, the ESO should work with TOs

to be clear on TO roles that support the competition process so that these can be ring-fenced from bidding activities and allow incumbents to take part in the EC process.

The areas where incumbents may be required to support the competition process are:

- Initial needs identification: The incumbent will know from activities it undertakes as part of assessing the works required for customer connections and network asset health condition, whether there are multiple needs being addressed (or that could be addressed) by one solution. This ensures consumers are protected from the potential 'over-reinforcement' which could result if there is no optimisation of solutions to meet a range of drivers.

- Interface definition between the competitive bid and the existing system and costing: As per the approach with Pathfinder, the incumbent will need to provide information regarding the works required to accommodate the proposed solution, the cost of those works, the timeline of those works and any other relevant impacts. The incumbent may also be asked to provide information regarding availability of land or other known issues that may be appropriate for the incumbent to share e.g. interacting projects at that site.

- Compliance: Incumbents need to ensure that the solutions proposed do not result in any consequential safety or SQSS non-compliance and, where it does, conditions are put in place to mitigate this e.g. a connection could result in power quality issues, such as Negative Phase Sequence levels, which would breach SQSS limits. The obligation for incumbent transmission operators to plan in accordance with the security standards likely needs to be reviewed with the implementation of competition and potential multiple network owners.

- It is also worth highlighting, the incumbent will provide information to the ESO. The ESO will utilise the information as it sees fit for the competition process. The incumbent does not have any influence on how this information is disseminated or used by the ESO.

We believe the roles and responsibilities of incumbent transmission operators should be clearly defined, recognised, and funded in price controls. We welcome the opportunity to work with Ofgem and the ESO to define these roles in more detail, and the appropriate funding, as we believe there are a number of areas where incumbent transmission operators can help support the introduction of early competition.

There are learnings from the pathfinder project that can be useful too; for example, to inform the resource and funding required to support data provision queries, and the need for direction on how to prioritise requests for information from bidders for competitive solutions versus business as usual customer queries. Please see appendix 2 for additional information on the challenges and learnings from Pathfinder projects.

Question 4: What are your views on the proposed conflict mitigation arrangements for TO roles? What might be an appropriate level of challenge from the ESO on solutions put forward by TOs as part of their network planning role?

We agree that involving the TOs will deliver greater value for end consumers and that any perceived conflict of interest can be satisfactorily addressed. Indeed, excluding the TOs would severely restrict competition. Based upon the high-level information provided, Option to ring-fence

bidding teams, for conflict mitigation appears to be the least disruptive route. However, we are concerned there may be limitations if applied without further thinking and detail behind the proposal. For instance:
1. Time-bound ring-fenced approach may be appropriate to minimise disruptions (cost and resources), nevertheless, need to ensure there aren't onerous 'gardening leave' restrictions on who can be part of the bidding team.
2. Network Planning definition refinement is required. Within NGET a significant number of employees are in some way involved within network planning/design/development activities. We are also assuming the existing TO delivery teams can deliver the project with appropriate cost allocations once the bidding period concludes and able to continue core business roles.

Question 5: Do you agree with our views on the TO counterfactual approach?

We agree with Ofgem views on the TO counterfactual as it does not create a level playing field, is not a true form of competition and potentially gives unfair advantage to the TOs due to the role they still maintain in network planning and potentially in the procurement process.

It is worth noting that the TO counterfactual approach is the current arrangement for Pathfinder projects. The pathfinder projects also have some significant limitations in the way they have been designed and delivered – these need to be corrected prior to being used as a template for early competition / or expanded further. We welcome the engagement with ESO and Ofgem on the current pain points for TOs of Pathfinders and will continue to engage on potential solutions. Please see appendix 2 for additional information on the challenges and learnings from Pathfinder projects.

CHAPTER 6: TENDER PROCESS AND COMMERCIAL MODEL

Question 1: Do you have any material concerns with the commercial model proposed by the ESO?

In principle the commercial proposals by the ESO are reasonable and welcome some of the feedback that has been considered on performance bonds and decommissioning securities. Until further detailed development has been undertaken on the various aspects of the commercial model, it is difficult to provide a more detailed response. We would be happy to provide constructive feedback once a detail proposal is put forward on the commercial model.

Question 2: Do you have any material concerns with the tender process proposed by the ESO?

Similar to the above point, in principle the tender process proposed by the ESO are reasonable and welcome some of the feedback that has been considered on two stage process and costs assessments during the tendering.

During the tender process it will be important to consider the supply chain challenges for bidders – particularly for assets with relatively limited supply chain such as HVDC cables. A level of certainty will be required both for bidders, and their supply chain, to submit the best options (and best estimate of cost) during the tender process. We welcome further engagement on how these issues could be mitigated for bidders and their supply chain.

Until further detailed development has been undertaken on the detail behind the costs assessments, it is difficult to provide a more detailed response. We would be happy to provide constructive feedback once a detail proposal is put forward on the tender process.

We also include our previous consultation response to the ESO for completeness.

Appendix 2 – Pathfinder challenges and learnings

ADDITIONAL INFORMATION: Pathfinder challenges and learnings

We have referenced concerns with the Pathfinders in areas of our consultation response above. Below provides an overview of the key challenges and learnings we believe incumbents have experienced to date and that should be considered when designed early competition.

There are three key areas of concern pertaining to: 1) the connection process, 2) the length of pathfinder contracts, and 3) licence compliance.

On the connection process: The approach adopted has been very much 'learning by doing'. This has created a number of issues that have either frustrated connectees or introduced significant inefficiencies and uncertainty in to the connection process. The current interim approach has required a direction from Ofgem to allow the TOs to simplify the process. Whilst we have supported this, we have concerns that there could be unintended consequences. Areas that require further consideration are:

- how to prioritise bidders for competitive processes versus business-as-usual queries e.g., from offshore wind connection customers
- how to avoid a 'clamour' for connections from potential applicants leading to possible inefficient designs and delays for third parties and other reinforcements

On the **length of pathfinder contracts**: The assessment of initial pathfinder bids has ignored the future cost to consumers after the end of the pathfinder contracts. Bidders are contracting for circa 10 year contracts which are being compared directly to 40 year TO asset life costs. More thinking is required on the need for the assets beyond the contracted period. Given the forecast costs for system services to accommodate lower fault levels and greater range of flows in the future, we fail to see how the need will disappear. The ESOs own operability report highlights these future trends. For both fault levels and reactive power requirements, the causal factors which have created the needs case as highlighted in various documentation by ESO is not forecast to reverse and the tend is likely to continue out to 2050. An enduring regime that is permanently extending commercial

contracts in favour of lower cost assets solutions will expose future consumers to significantly higher costs.

On **licence compliance**: On pathfinders, it is the ESO contracting with pathfinder bidders; incumbent TOs have limited control on the additions to the system but do have licence obligations. Incumbent TO licence obligations will require review both to accommodate Pathfinders and to accommodate early competition in the future. The ESO requirements should also be reviewed at they take on the responsibility to ensure they are appropriately incentivised.

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