

Neil Copeland (Ofgem)  
Christian Glenz (BEIS)

8 September 2021

Submitted by email

Dear Neil and Christian

**Consultation on changes intended to bring about greater coordination in the development of offshore energy networks**

This joint response is on behalf of National Grid Electricity Transmission, SP Transmission and SSEN Transmission. As the three incumbent Transmission Owners (TOs) in GB, we are pleased to be part of the Central Design Group, supporting the Electricity System Operator (ESO) on the Holistic Network Design (HND) for the Offshore Transmission Network Review's (OTNR) Pathways to 2030 workstream. The intent of the Central Design Group and the HND is to provide certainty and accelerate the delivery of the onshore and offshore network requirements for the 2030s in a coordinated way.

Each TO will also be submitting their own individual responses to the above-mentioned consultation.

**Delivering the 40GW offshore wind target by 2030**

Delivery of the UK Government's 40GW offshore wind target by 2030 not only requires significant offshore network infrastructure solutions, but also the timely development of a significant amount of major onshore development works and reinforcement to the existing GB onshore electricity network. The electricity network, including the onshore transmission network, is a key enabler for meeting the Government's Net Zero target by 2050. The demanding carbon budgets, Net Zero target pathways and bold political commitments mean that time and scale pose the biggest challenge to delivery. Collaboration and support across industry, with central and devolved Governments, and with Ofgem, will be fundamental to success.

The scale of investment required, and short timescales mean existing processes which have historically served us well, now require swift change. The OTNR aims to address this by setting out the onshore and offshore electricity network infrastructure requirements through a HND. We support the ambition of the HND to set out the 2030 grid requirements by January 2022. However, the view of the TOs is that wider regulatory and planning processes also need to be concurrently reviewed and aligned with the OTNR's work and pressing delivery timelines.

We have outlined below, further areas within existing regulatory and planning processes, which we consider require reform and support from BEIS and Ofgem to facilitate the successful and timely delivery of the OTNR work to deliver 40GW of offshore wind by 2030:

**The HND must be clear and consistent with the outcomes of future Network Options Assessments (NOA) to provide certainty and confidence in development, consenting and deliverability of key strategic infrastructure.**

Under the current framework, the initial recommendation for anticipatory major network infrastructure is determined through the NOA, performed by the ESO, on an annual basis. However, this existing NOA methodology which is intended to guide investment against an uncertain future by providing single year investment signals, against an evolving set of Future Energy Scenarios, does not align with the intent of the HND which is to provide certainty on the onshore and offshore network

requirements for the 2030s. We are therefore strongly of the view that the recommended HND must form the inputs to future NOA publications. We believe that the NOA methodology should therefore be reviewed now, to allow for the HND recommendations to form part of next year's NOA - NOA7, as well as all future NOA publications.

We also recommend that the outputs of the HND should replace the need for regional or individual Connections and Infrastructure Options Note (CION) process for any projects in scope of the HND development. This would allow offshore wind developers to have confidence and certainty in the transmission investment necessary for their connection following the completion of the HND in early 2022.

**Certainty of the network need and investment signal is required now for TOs to ensure timely delivery of the onshore network infrastructure required to achieve the Government's 40GW offshore wind targets by 2030.**

NOA provides an economic signal to progress delivery of network infrastructure for the forthcoming year, and for larger network infrastructure, this is often supported through Ofgem's Large Onshore Transmission Infrastructure (LOTI) process under the RIIO-T2 price control. However, neither the NOA or LOTI processes provide sufficient certainty to TOs, and other key stakeholders, at a suitably early stage, in order for schemes to progress to delivery. For example, the annual NOA review process introduces uncertainty for manufacturers in committing capacity for GB schemes and makes it more difficult for communities to engage in discussions in detailed development plans. This issue is exemplified further given the scale of onshore infrastructure to be delivered by 2030, to meet offshore wind targets.

We are strongly of the view that the recommended schemes from NOA6<sup>1</sup> (published in January 2021) form the best opportunity to deliver the required onshore infrastructure by 2030 as these schemes are already under development by TOs, in line with the NOA6 recommendations. These schemes should therefore be considered by Government, Ofgem, the OTNR members, and wider stakeholder groups as the 'baseline' for the HND, providing a strong foundation for both onshore and offshore infrastructure, and for the future additional network requirements. Subsequent NOAs should not reconsider the onshore works recommended in the HND and should either include or refer to the HND as NOA's recommendation on these onshore upgrades, allowing TOs to continue to press ahead with the development of these vitally important schemes. Details of the NOA6 schemes given a 'proceed' signal by the ESO in January 2021, which we propose should form the 'baseline' are listed in the accompanying Annex A.

**The HND should directly contribute to the formation of the needs case used to justify the need for investment to Ofgem**

Within the TOs' current regulatory funding framework, and more specifically, Ofgem's LOTI process, a decision on whether a project is 'needed' on the network is only made at the Final Needs Case (FNC) stage. This is too late in the planning and procurement processes to offer TOs' certainty to proceed in these key areas, particularly in light of the timelines to 2030. Ofgem give a view on the need for a project at the Initial Needs Case (INC) stage of the process, which is helpful ahead of significant activities, including statutory consultation. As the OTNR Terms of Reference for the CDG, states that the HND should also consider environmental and other considerations, alongside cost, such rigorous assessment of the HND allows for the HND to justify the existence of the network 'need' at a much earlier stage in the process. The existence of the HND, should therefore accelerate the INC stage of the LOTI process significantly, allowing for the expedited investment decisions from Ofgem, to facilitate accelerated network development. We have raised this proposal with Ofgem and look forward to further discussions with Ofgem on how the HND can facilitate a 'light touch' INC assessment. We believe Ofgem's Net Zero re-opener could be another potential avenue to accelerate the regulatory process.

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<sup>1</sup> NOA6 - <https://www.nationalgrideso.com/document/185881/download>

**The HND should directly contribute to the formation of the needs case used to justify the need for investment to planning authorities and must be endorsed by Government National Policy Statements and National Planning Frameworks to provide direction for the consenting processes**

In order to support TOs in progressing schemes through consenting processes, development of the HND must include a sufficiently robust assessment of the onshore works (e.g. environmental impact) to enable endorsement within the National Policy Statements (NPS) and National Planning Framework (NPF). Timely regulatory endorsement and funding certainty on planning scope (e.g. before planning consultations commence, or through a Net Zero re-opener) will ensure certainty over consenting and prevents adversely impacting the deliverability of schemes in line with the Government's 40GW offshore wind targets.

The HND should also be used to inform the needs case for onshore infrastructure requirements. Agreed and early clarity on the network need across regulatory mechanisms should accelerate the securing of pre-construction funding, which must be in place to ensure planning and consenting certainty can be achieved by 2025 and accelerate Ofgem's LOTI process for construction funding for the recommended investments. Planning and regulation needs to be aligned, both in process and decision making, to provide confidence and certainty of joint outcomes. This should consider the holistic requirements for interacting regional project clusters, taking account of cumulative impact and agreed principals for design mitigations and planning scope.

It is important that the relationship between Ofgem's LOTI process and the necessary planning processes (e.g. the Development Consent Order (DCO) process in England and Wales, and equivalent planning processes in Scotland) are aligned and cross-reference the outputs of the HND at the Initial Needs Case Stage.

Looking to the future, a more strategic approach to planning energy infrastructure is required. In Scotland, this approach is happening organically through the formation of the Major Energy Projects Group, the ScotWind Roundtable and strategic planning from Marine Scotland's sectoral plan (which then informed Crown Estate Scotland's ScotWind leasing sites). The ScotWind Roundtable has brought these elements together for the purpose of delivering ScotWind by 2030 and proposed the Central Design Group. This is a similar approach to the Electricity Networks Strategy Group (ENSG) which met to address the long-term challenges to connect renewable generation. To achieve Net Zero, we believe policy makers and networks companies must work together to create greater certainty on long term strategic planning.

We would be happy to discuss the points raised in this response in greater detail.

Yours sincerely

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### **Onshore Infrastructure Projects which directly contribute to the delivery of the Government's offshore wind target of 40GW by 2030**

There are 23 schemes which directly contribute to the delivery of the Offshore Wind target of 40GW by 2030. These have been recommended to 'proceed' by the ESO through the NOA process and can be addressed through different technical solutions which are currently being developed by SHET, SPT and NGET.

To remain consistent with the NOA6 publication (Jan 2021) these are listed in sequence of Earliest In-Service Dates, in brackets [20xx]. NOA6 schemes for which additional options are being considered to specifically address the Government's 40GW offshore wind targets will need to be included as recommendations within the HND.

- 1. East Coast Onshore 275kV Upgrade (ECU2) - [2023]
- 2. East Coast Onshore 400kV Upgrade (ECUP) - [2026]
- 3. Eccles Hybrid Synchronous Compensation (ECVC) - [2026]
- 4. Denny – Clydes Mill – Wishaw 400kV Reinforcement (DWUP) and Kincardine North 400kV Substation – [2026]
- 5. Yorkshire GREEN, Osbaldwick-Poppleton (OPN2) - [2027]
- 6. Eastern Link 1, Torness-Hawthorn Pit (E2DC) – [2027]
- 7. Eastern Link 2, Peterhead-Drax (E4D3) – [2029]
- 8. Denny – Wishaw 400kV Reinforcement (DWNO) – [2028]
- 9. Bramford-Twinstead Reinforcement (BTNO) - [2028/29]
- 10. SEA Link, Suffolk-Kent (SCD1) – [2029]
- 11. Beaulieu to Loch Buidhe 275kV reinforcement (BLN2) – [2030]
- 12. Beaulieu to Blackhillock 400kV double circuit addition (BBNC) – [2030]
- 13. North East Anglia (AENC) – [2030]
- 14. South East Anglia (ATNC) – [2030]
- 15. Tilbury Grain New Circuit (TENC) – [2030]
- 16. New 400kV double circuit between Blackhillock and Peterhead (BPNC) – [2031]
- 17. North to South Humber Reinforcement (CGNC) – [2031]
- 18. South Humber to South Lincolnshire Reinforcement (GWNC) – [2031]
- 19. Eastern Link 3, Peterhead to South Humber (E4L5) – [2031]
- 20. Eastern Link 4 (TGDC) – [2031]
- 21. New Circuit from South Scotland to Harker (CMNC) - [2031]
- 22. New Double Circuit from South Lincolnshire to Rutland (LRNC) – [2031]
- 23. Upgrade Brinsworth – Chesterfield, and New Circuit from Ratcliffe to Chesterfield (EDNC) – [2033]

The above list excludes wider network upratings and reinforcement works (e.g., shorter-term schemes in the 1-7 years horizon) which are also required to ensure wider network preparedness for 2030 but are not directly linked to Offshore Wind developments.

Projects [16] and above have EISDs post-2030 but enable capacity for the UK to achieve, and in some cases exceed 40GW; it is necessary to consider these circuits as sufficiently grouped to the delivery of projects [1]-[15] to fully enable the delivery of the offshore wind capacity and hence, the Government's 2030 offshore wind targets.

These schemes are based on the FES2020 scenarios considered by NOA6. The generation backgrounds considered by HND may lead to requirements for additional schemes; e.g. additional Irish Sea generation may require developments in Wales / along the West Coast.