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NESO letter to Ofgem regarding HND North Cluster 2 impact assessment and asset classification.

Dear Stuart,

In March 2024, we published Beyond 2030[1], which incorporates our recommended design for projects from both the Holistic Network Design Follow-up Exercise (HNDFUE)[2] and the Holistic Network Design (HND)[3] released in July 2022. These designs establish a unified framework to support the large-scale delivery of electricity generated from offshore wind, ensuring power reaches the necessary locations across Great Britain. Since the HND's publication, Transmission Owners (TOs) and offshore wind developers with non-radial connections have begun the process of detailed network design (DND).

During the DND phase, TOs and developers explore the designs more thoroughly, this is where potential changes are to be anticipated. This led to the development of a process to evaluate these changes against the HND baseline using four HND design criteria. Changes may involve technology updates, modifications in cable routes or lengths, or alterations in network configurations that significantly impact the design criteria. We refer to this as the HND/HNDFUE Impact Assessment process[4].

Deviations from the recommendations could have broader implications for the transmission network and other industry processes. Understanding the full impact of any design changes is crucial, as unforeseen consequences may arise, and we are best positioned to conduct this comprehensive assessment.

The purpose of this letter is to communicate the outcome of the North Cluster 2 impact assessment and compare the assessed design change with the original recommended HND. We also request that the Office of Gas and Electricity Markets (Ofgem) consider our assessment and

[1] neso.energy/publications/beyond-2030
[2] neso.energy/document/270851/download
[3] neso.energy/document/262681/download
[4] neso.energy/about/our-projects/offshore-coordination

its implications for the previously consulted asset classifications of the new recommended design for the HND North Cluster.

The North Cluster 2 design change, assessed through the impact assessment process, was submitted by Scottish and Southern Electricity Networks Transmission (SSEN-T) on behalf of the HND North Cluster. This cluster, set to be electrically connected off the east coast of Scotland, includes TOs SSEN-T and National Grid Electricity Transmission (NGET), as well as offshore wind farms developed by partnerships such as Morven Offshore Wind Farm (BP and EnBW) and Bellrock Offshore Wind Farm (BlueFloat Energy and Nadara).

NESO is aware that Ofgem has tasked our Network Competition team with assessing the HND and HNDFUE assets that were designated as 'onshore transmission' in respect to Ofgem's decision on HND asset classifications, exploring the feasibility of a Competitively Appointed Transmission Owner (CATO) delivery model. Whilst this work was ongoing, it would have been premature to assume that incumbent TOs will be responsible for delivering the 'onshore transmission' components of the updated HND North Cluster design. However, the conclusion of the NESO competition assessment did not recommend to Ofgem that the HND offshore link should be considered as suitable projects for CATO delivery.

The cluster submitted three design changes to be evaluated against the HND "baseline" and an updated version of it (the "counterfactual"). The proposed changes focused on variations in network topology (coordinated and radial options) for the coordinated offshore hub, prepared by the cluster and submitted for assessment. Extensive supply chain engagement on the feasibility of topology options was conducted in parallel and shared to support the impact assessment process.

Assessment outcome: Our analysis concluded that connecting Bellrock directly into Hurlie and Morven directly into Hawthorn Pit emerged as the preferred option. This removes the need for interconnected offshore transmission platforms and revises the onshore components into a point-to-point solution connecting at two onshore interface points in Scotland and England.

Further details of the new design, factors influencing the outcome of the Impact Assessment, and potential benefits can be found in the accompanying North Cluster 2 Outcome Summary[5] on the NESO website.

On 7 February 2025, we presented the North Cluster 2 impact assessment to the HND Board to confirm that the necessary considerations were applied. This aligns with the steps taken for HND and HNDFUE. We presented the assessment outcome, explained the process followed, provided evidence of compliance with the required process, and sought their sign-off. The HND Board confirmed that the required process was followed, finalising the Impact Assessment outcome.

In October 2022, Ofgem outlined the criteria for determining the appropriate classification of each asset in the HND for the correct licence. After reviewing the Ofgem criteria, we believe that the latest HND design requires a classification review of the affected assets to provide clarity for developers and TOs as they progress the DND.

[5] ofgem.gov.uk/decision/offshore-transmission-network-review-decision-asset-classification

Specifically, the primary usage of the **SW_E1a – Hawthorn Pit** asset has changed due to the latest design topology. This asset no longer provides transfer of electricity offshore by more than one generator. The other notable updates are the following onshore transmission assets are no longer electrically connected to each other and any other assets as part of the HND recommended offshore network:

- **Hurlie - SW_E1a**
- **SW_E1a – Lincolnshire Connection Node**

The assets have been replaced by a new 2 GW High Voltage Direct Current (HVDC) offshore link, with the north connection location changing from Hurlie to Longside near Peterhead in Aberdeenshire, Scotland.

The primary usage of this asset remains unchanged from its previous iteration, providing transfer for transmission in offshore water of electricity generated both onshore and offshore. Additionally, through detailed connection work which followed the Ofgem decision on asset classification the onshore transmission assets had become enabling works for some offshore customer connections.

Finally, NESO notes that for the **SW_E1b – SW_E1a** asset, while the physical connection location to the onshore transmission system has changed from offshore to onshore, the asset still meets the criteria of the pre-existing classification.

We welcome your response. If you have any questions or comments related to the points raised in this letter or require further information, please do get in touch.

Yours sincerely

David Willmot

Interim Head of Offshore Coordination Network Planning