

NESO National Energy System Operator

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28 October 2025

NESO letter to Ofgem regarding HND Collaborative Impact Assessment and asset classification.

Dear Stuart,

The purpose of this letter is to communicate the outcome of the Collaborative Impact Assessment and how the design change that was assessed compares to the original recommended HNDFUE. We also wish to request that the Office of Gas and Electricity Markets (Ofgem) consider the outcome of our assessment, and the implications to the previously consulted asset classifications, specifically the new recommended design for the HNDFUE network.

Beyond 2030¹, published in March 2024, incorporated our recommended design for projects from the Holistic Network Design Follow up Exercise (HNDFUE)² as well as the Holistic Network Design (HND)³ published in July 2022. Each design sets out a single, integrated design that supports the large-scale delivery of electricity generated from offshore wind, taking power to where it's needed across Great Britain. Since the publication of the HND, Transmission Owners (TOs) and in scope offshore wind developers with non-radial connections have started to produce the detailed network design (DND).

As part of the DND phase, TOs and developers consider the designs in more detail and potential design changes are to be expected. This has required us to develop a process to assess the impact of these changes, against the baseline of the HND, using the four HND design criteria. These changes may include a change in technology, a change in cable route or length or a

¹ neso.energy/publications/beyond-2030

² neso.energy/document/270851/download

³ neso.energy/document/262681/download





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change of network configuration that would have a material impact on the design criteria. We refer to this process as the HND/HNDFUE Impact Assessment process⁴.

Deviations from the original recommendations may have wider implications for the transmission network and other industry processes. It is important that we understand the full impact of any design changes, as there may be consequences that are not immediately obvious, and we are best placed to conduct this holistic assessment.

Collaborative Impact Assessment submission

The Collaborative Impact Assessment was submitted collectively by the offshore wind farms being developed by partnerships off the east coast of Scotland: Ossian (SSE Renewables, Copenhagen Infrastructure Partners and Marubeni Corporation), CampionWind (ScottishPower and Shell) and Morven Offshore Windfarm (JERA Nex BP and Energie Bafen-Wurttemberg AG), as well as the Transmission Owners (TOs), National Grid Electricity Transmission (NGET) and Scottish and Southern Electricity Networks Transmission (SSEN-T).

There were four design changes submitted to be assessed against the HNDFUE "baseline" and an updated version of the baseline (the "counterfactual"), the proposed changes were centred around multiple variations of the offshore network topology (which included fully radial and partially coordinated options).

Assessment Outcome

The conclusion of our analysis resulted in each of the offshore wind farms now connecting directly to the onshore network without the interconnectivity offshore. With a new HVDC offshore link replicating the offshore power transfer of the original design.

Further details of the new design, the factors influencing the outcome of the Impact Assessment, and the potential benefits of the design change can be found in the accompanying Collaborative Impact Assessment Outcome Summary⁵ on the NESO website.

On 28 August 2025, we took an agenda item on the Collaborative Impact Assessment to a meeting of the Holistic Network Design (HND) Board, to ratify that the necessary considerations had been applied. This is consistent with the steps taken for HND and HNDFUE. We presented the outcome of the assessment and an explanation of the process that we followed, to provide sufficient evidence to the group to demonstrate that we had followed the required process. The group confirmed they believe we had followed the required process which means the outcome of the Impact Assessment was finalised.

Asset Classification Request

In April 2024, Ofgem set out the criteria for determining the appropriate classification of each asset in the HNDFUE, for the correct licence to be granted. Having reviewed the Ofgem criteria for determining the classification we believe that the latest HNDFUE design requires a classification

⁴ neso.energy/about/our-projects/offshore-coordination

⁵ neso.energy/document/369371/download



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review of the affected assets. This will provide clarity for the developers and TOs as they progress the DND

The primary usage of the following assets has changed due the latest design topology. These assets no longer provide transfer of electricity offshore by more than one generator:

- SW_Elc to Weston Marsh x 2
- SW_Ela to Branxton

The following assets are no longer required and can be considered removed from previous classification guidance:

- SW_E2a to SW_E1c
- SW_Elc to SW_Ela
- SW_Elc to LCN

Additionally, the below onshore transmission assets are no longer electrically connected to each other and any other assets which are part of the HNDFUE recommended offshore network:

- New Aberdeenshire Substation SW_E2a
- SW_E2a Kent

The assets have been replaced by a new 2 GW High Voltage Direct Current (HVDC) offshore link **A new substation in Aberdeenshire area to Kent area**. 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 between TO license areas.

Finally, to facilitate the updated connection of all ScotWind generators, additional links have now been introduced in the latest topology which require guidance from Ofgem:

- SW_E2a to Emmock
- SW_E2a to LCN
- SW_Elc to Brechin

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

Yours sincerely

David Willmot

Head of Electricity Network Design and Delivery