Scottish & Southern Electricity Networks

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30 July 2025

Dear Ed,

STATEMENT ON ESTABLISHED NEED FOR THE PROPOSED DEVELOPMENT

PLANNING APPLICATION REFERENCE: 24/00699/FULN
ADDRESS: FIELD 500M SOUTHWEST OF BALKEMBACK FARM, TEALING.

This Statement is submitted in relation to an application for full planning permission under the Town and Country Planning Act (Scotland) 1997, to install and operate this new 400 kV substation named Emmock, near Tealing in Angus, with associated earthworks, the formation of platforms, landscaping, means of access, means of enclosure, site drainage, and temporary construction compounds (referred to hereafter as the "Proposed Development"). The purpose of this Statement is to provide clarity on the established need for the Proposed Development and has been submitted in response to your email of 15 April 2025.

The Planning Statement submitted with the application confirms that the Proposed Development is designated as a Class 3(c) National Development in its own right, being new onshore high voltage electricity transmission infrastructure above 132 kV. On that basis, the Proposed Development is supported by national planning policy in terms of National Planning Framework 4 ('NPF4'), which emphasises the need for strategic reinforcement of the transmission grid to connect and transmit from renewable energy development. It would contribute significantly towards the delivery of the UK and Scottish Governments' Net Zero Targets.

It is not intended to repeat the assessment and conclusions of Planning Statement in this Statement, instead the focus is on the established need for the Proposed Development from a technical and economic perspective, with reference to the separate system planning and regulatory frameworks promoted and administered by: (i) the National Energy System Operator ('NESO'), and (ii) the energy regulator (Ofgem).

This Statement also provides further details on SSEN Transmission's approach to meeting this need, specifically the search area for site selection and the separation of the consenting processes for the Accelerated Strategic Transmission Investment (ASTI) Projects.

Established Need: Technical and Economic Need

Separate to, and independent from, the provisions of NPF4 and the Scottish Government's broader policy support for the deployment of renewable energy, there is an established technical and economic need for the Proposed Development, as shown from:

a transmission system planning exercise encompassing the entire National Grid (considering the upgrades necessary to accommodate the UK generation and demand requirements); and

the regulatory approval from Ofgem as part of its ongoing assessment process. In short, the need for the development has been carefully assessed and established as part of those regimes.

System Planning

HND and NOA Refresh (2022) - 'Pathway to 2030'

In July 2022, National Grid ESO, (as of 1st October 2024 now known as the National Energy System Operator (NESO)) published the Pathway to 2030 Holistic Network Design (HND), setting out the electricity transmission network infrastructure required to enable the forecasted growth in renewable electricity across Great Britain, specifically the UK and Scottish Government's 2030 offshore wind allocations of 50GW and 11GW (through the Crown Estate and ScotWind leasing rounds) which are the main drivers for these upgrades.

This study confirmed the need for a significant and strategic increase in the capacity of onshore and offshore electricity transmission infrastructure to support the UK and Scottish Governments' commitments to meet legally binding net zero targets. The HND supplemented the Network Options Assessment ('NOA') Refresh, published in July 2022, which confirmed the requirement for the delivery of the onshore infrastructure to support 11GW of generation associated with ScotWind by 2030 (in conjunction with the offshore infrastructure identified in the HND).

In summary, National Grid ESO was clear in 2022 that further reinforcement of the electricity transmission network was needed to connect the new, large-scale, renewable sources of energy in Scotland.

HND Follow Up Exercise (2024): 'Beyond 2030'

In 2024, the NESO further reviewed the onshore and offshore network reinforcements, as part of their HND Follow Up Exercise integrated design called 'Beyond 2030', to facilitate the connection of an additional 21GW of offshore wind from the ScotWind leasing round, beyond that set out in the HND and NOA Refresh. This confirmed the onshore and offshore reinforcements identified as part of the 2022 HND and NOA Refresh were required with the scopes developed to date at that point, as set out in the Map at Figure 1 of the Beyond 2030 Report:

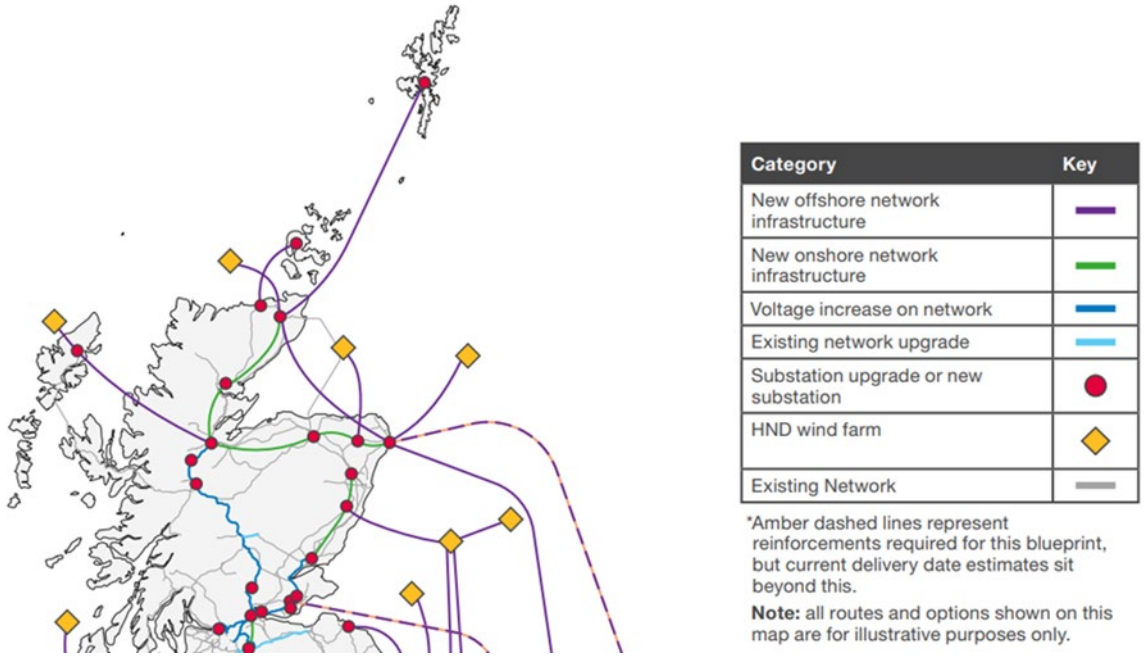

Figure 1 - Map of 2030 network infrastructure including HND offshore coordinated system

In summary, the NESO's HND, NOA Refresh and associated follow up design exercise (HND FUE) set out the required onshore and offshore transmission works (including the Proposed Development as new onshore transmission works) that supports the large-scale delivery of electricity generated from offshore wind, taking electricity from where it is generated to where it is needed across Great Britain.

Ofgem: Regulatory Approval Process

To enable the delivery of the required transmission infrastructure for 2030, Ofgem established a new regulatory framework for the Transmission Operators, including SSEN Transmission, to obtain regulatory approval of the economic case for delivery (and funding) of the required

transmission system infrastructure identified as part of the 'Pathway to 2030' exercise (discussed above). This process is known as the Accelerated Strategic Transmission Investment (ASTI) framework.

This process demonstrates the regulatory support by Ofgem for the delivery of the onshore infrastructure identified by NESO. Ofgem has, for example, emphasised the significant benefit of this new transmission infrastructure being delivered for consumers (and, conversely, the risk of any delay in its provision). Reference is made to Section 2.3 of Ofgem's decision on the ASTI Framework (dated 15 December 2022) (the 'ASTI Framework Decision'), which states:

> "Delivering the Government's ambitions will bring significant benefits to the British energy system in terms of its overall resilience, security of supply and decarbonisation of the sector. However, there are also significant potential consequences if the required onshore transmission upgrades are not delivered by 2030, including capacity not being able to be connected in a full and safe manner, increased constraints, and constraint costs that are ultimately passed on to consumers' energy bills."

The Proposed Development is within the scope of the ASTI Framework. Reference is made to the ASTI Framework Decision Appendix 1, which lists the relevant projects, including the East Coast onshore 400Kv Phase 2 reinforcement project, which the proposed substation forms part of. In relation to these projects, Ofgem observed at Section 3.14 of the ASTI Framework Decision that:

> "**By including projects within the list of ASTI projects, we are accepting the needs case for these projects in terms of the technical capabilities reflected in the HND/NOA Refresh.** This does not mean that the projects within ASTI may not evolve and change as they progress through the planning process and more detailed design. We will assess the detailed project design choices when the projects have been further developed and we will undertake a full Project Assessment (PA) following TOs' request for full project costs (see Chapter 5 for details of the new assessment process)." (Emphasis added).

Please follow the link below to the ASTI Framework Decision document:

Decision on accelerating onshore electricity transmission investment

Separately, Ofgem and the Department for Business, Energy and Industrial Strategy (BEIS), now the Department for Energy Security and Net Zero (DESNZ), have supported and endorsed the Pathway to 2030 Holistic Network Design through the establishment of the Offshore Transmission Network Review (OTNR) and Central Design Group (CDG).

Meeting the Need for Transmission Infrastructure

Proposed Development Search Area

As confirmed in the EIAR (Chapter 4, Para. 4.4.1), the Site Selection Area of Search encompassed an area within a 5 km radius of the existing Tealing substation, which the Proposed Development requires to connect with to provide a connection for the new substation back into the existing transmission network.

The 5 km radius of this search area corresponds to the maximum viable length for a direct connection (whether by overhead line or underground cable) between the Proposed Development and the existing Tealing substation. This assessment of viability is based upon consideration of several factors related to the predicted cost, technical complexity and environmental impact of the connection.

The Proposed Development is required to accommodate the following OHL connections / tie-ins:

- Proposed Tealing to Kintore (TKUP) 400kV OHL;
- 275kV OHL connections back to the existing Tealing substation;
- Existing Alyth – Tealing OHL once upgraded to 400kV; and
- Existing Tealing – Westfield OHL once upgraded to 400kV.

The existing infrastructure converges at the existing Tealing substation, which the Proposed Development also needs to connect into. Consequently, the further the application site is from the existing substation, the greater the requirement would be (in terms of distance, tower numbers etc) for additional new infrastructure to enable the required connections. This greater requirement would lead to a direct increase in the costs and technical complexity of the connections and an increase in the extent and overall significance of the environmental impact associated with them.

The location of the Proposed Development therefore seeks to limit the requirement for new infrastructure by siting it close to the existing Tealing substation. This proposed location also provides an opportunity to reuse part of the existing transmission network infrastructure as part of the connection process, further minimising the need for new, additional infrastructure in the area.

EIA Report Volume 2 Chapter 4 provides further details in relation to the site selection process and the consideration of alternatives.

Separation of the Consenting Processes

It is our understanding that Angus Council intend to consider and issue a decision on the Section 37 Tealing to Kintore (TKUP) 400kV OHL proposals (due for submission in Summer 2025) consultation process, prior to determining the Emmock 400kV substation planning application.

The Council's position in this regard is acknowledged, however it is important to note that the outcome of the TKUP Section 37 application is not directly linked to the need for the proposed new substation at Emmock. That is to say that, should the Section 37 application be delayed or even refused there is still requirement for the Emmock substation to be constructed and energised in time for 2030 as part of the wider ASTI Framework.

This need for the Emmock substation is predicated on the fact that, whilst it is required to facilitate the connection of the proposed TKUP 400kV OHL into the wider transmission network, it is not the only network requirement (need) that the new substation is designed to satisfy.

In addition to the TKUP OHL the new substation is also required to accommodate the following OHL connections / tie-ins:

- A new 275kV OHL connection back to the existing Tealing substation;
- A new tie-in of the existing Alyth – Tealing OHL once upgraded to 400kV; and
- A new tie-in of the existing Tealing – Westfield OHL once upgraded to 400kV.

The new 275kV connection of the proposed new substation back to the existing Tealing substation is required to provide a connection point back into the existing transmission network, for onward distribution and use within the area.

The upgrade of the existing Alyth – Tealing and Tealing – Westfield OHL circuits are required to enable increased north to south power transfer on the east of the SSEN Transmission system to demand centres in southern Scotland and England, reducing system constraints on the network and associated constraint costs.

Furthermore, the NESO has identified a list of future priority circuits for Dynamic Line Rating (DLR) to alleviate system constraints, which includes the existing Alyth – Tealing and Tealing – Westfield OHL circuits. The proposed upgrade works and tie-ins will overlap with this requirement and will help the NESO in alleviating system constraints.

It is in the context of these additional strategic network requirements that a separate consenting process strategy has been adopted for the Proposed Development. The new TKUP 400kV OHL tie-ins at Emmock are being consented separately.

The consenting strategy adopted acknowledges that there is a risk that the main TKUP OHL Section 37 application determination process may be held up, but a delay to the TKUP project does not remove the need for the Proposed Development and other upgrade works listed above.

By separating out the substation, existing Tealing substation connection and tie-in proposals there remains an opportunity to consent and deliver these nationally critical projects and facilitate the energisation of the network at 400kV, in isolation of the TKUP OHL project and prior to the determination of the Section 37 application.

In the meantime, should you have any queries or require further information, please contact me on the details above.

Yours sincerely

Chris Gardner MRTPI
Consents & Environmental Manager
Scottish and Southern Electricity Networks