

Spittal-Beauly overhead line project update

Following the recent period of public consultation on plans to develop a new 400kV overhead line between Spittal, Loch Buidhe and Beauly, we would like to thank all stakeholders who have taken the time to provide their feedback on potential overhead line routes and substation locations.

We would like to assure stakeholders that we fully recognise the strength of feeling among some individuals and groups and our team is working extremely hard to explore options to try and mitigate and minimise community impacts as we further refine our plans.

Work now underway to explore alternative routes and potential mitigations

In response to community and stakeholder feedback, we can confirm we are actively exploring alternative overhead line route options in key sections of particular local sensitivity. We are also considering potential mitigation measures, including the rationalisation of existing infrastructure, to try and minimise community impacts.

The ongoing assessment of potential routes and substation locations will continue to consider and seek to balance key environmental, technical and economic factors. This ongoing project development will be delivered in line with our legal and regulatory obligations and all relevant planning policies, including the consideration of legally protected environmental designations.

Planning policy and legislative considerations

SSEN Transmission holds a transmission licence under the Electricity Act 1989. In terms of section 9(2) of the Act, SSEN Transmission has a statutory duty to develop and maintain an efficient, coordinated and economical system of electricity and in doing so, it is our job to balance a range of factors in determining our proposed route for this critical national infrastructure. This includes environmental, technical and economic factors, alongside community and wider stakeholder feedback.

The development of our projects is also undertaken in line with established Scottish Government Planning Policies, including the recently adopted National Planning Framework 4; and our legal obligations under our electricity transmission licence, which itself is underpinned through legislation and regulation.

The identification of potential overhead routes has already considered a range of factors based on publicly available data sets, including environmental designations protected by law but also, proximity to homes, villages, and towns, historical landmarks, features and landscapes.

A range of environmental surveys will be carried out over the next 12 months to further inform our selection of a potential route and allow us to identify alignment options.

Our Section 37 consent applications for the new 400kV OHL will be accompanied by a detailed Environmental Impact Assessment (EIA) Report which will consider impacts on a wide range of environmental topics, together with providing mitigation requirements. This will also include landscape and visual assessments. Substations will be supported by either an EIA Report or voluntary Environmental Appraisal (depending on EIA Screening Opinion).

Ongoing engagement and future consultation plans

Whilst the recent round of public consultation has now formally concluded, we remain fully committed to engage with affected communities on potential route options, including the consideration of alternative routes in sensitive local areas, alongside potential mitigation measures.

Work to assess potential routes and mitigation measures will continue over the coming months, with an update on potential routes expected later in the year.

The next round of public consultation is due to take place towards the end of the year where potential route alignments and proposed substation and convertor station locations will be presented for further community and stakeholder consideration and feedback.

Following this formal consultation period there will be further engagement with affected communities and wider stakeholders as we continue to consider feedback as part of our iterative approach to project development.

Pre-consultation development activities

In advance of our recent period of public consultation, we conducted a significant analysis of potential overhead line route options. As part of this analysis, we used sophisticated software to help identify potential viable, consentable routes, allowing us to consider a wide range of factors based on publicly available data sets and technical requirements. The software is configured in such a way as to, where possible, take account of the proximity of potential routes to homes, villages, and towns; historical landmarks, features and landscapes; technical constructability and the many environmental designations in the search area.

The outcome of this analysis was further assessed and validated by desk and field-based studies, which established a shortlist of the most viable route options, presented at our consultation events and in accompanying publications. This ongoing analysis will continue throughout the development phase.

Whilst we acknowledge that there was limited community engagement prior to the recent period of public consultation, significant work had been undertaken in advance of consultation to identify and assess potentially viable routes, with this early development work undertaken in line with our legal and regulatory obligations.

The purpose of the recent public consultation events was to present these potential route options and substation locations to affected communities and wider stakeholders to allow for their feedback. This feedback is invaluable to help inform the ongoing development of this project as we continue to assess and evaluate options and undertake more detailed assessments.

Clarifying the use of the term 'preferred routes'

We would also like to clarify the use of the word 'preferred' when presenting potential routes and substation locations in our recent consultation material, which we acknowledge has caused some concern amongst stakeholders and created a perception that decisions had already been taken.

The use of the word ‘preferred’ refers to our initial assessment of potential route options and substation sites based on an assessment of key environmental, technical and economic factors, with those options presented in our consultation scoring best based on that initial assessment.

We recognise the terminology used was not helpful and we are in the process of reviewing our internal overhead routeing and substation guidance procedures with a view to amending this wording, which will be reflected in future consultation materials.

Further explanation of the ‘system need’ for these projects

In our last update we set out the overarching political, system and regulatory need for this project, which is part of a GB wide programme of reinforcements to the electricity transmission network that are required to help meet our net zero and energy security targets, in particular, the UK Government’s 50GW of offshore wind by 2030 target.

However, we recognise some stakeholders have asked for more detail explaining the need for this project and our wider 2030 network reinforcement plans.

The electricity system need - and how the specific projects identified as required to satisfy that need have been established - can be found in established network planning processes for the GB electricity transmission network. This includes the proposed technology solution.

The process for GB electricity transmission network planning involves extensive analysis and power system studies to establish both the drivers for network investments and the identification of which network upgrades should be taken forward.

This first considers future electricity trends, as set out annually in the National Grid Electricity System Operator (NGESO) Future Energy Scenarios (FES)¹. The FES sets out scenarios for future electricity generation and demand, broken down at a regional level across GB, including the north of Scotland; and considers all energy technologies.

The outputs from the FES are then considered against the existing electricity network, including planned reinforcements, to identify both generation and demand constraints on pre-defined transmission system boundaries. This process, the Electricity Ten Year Statement (ETYS)², is important to identify where there are ‘bottlenecks’ on the transmission system requiring intervention to address those constraints that would otherwise prevent the transportation of electricity generation to meet local demands.

To address those bottlenecks, the three GB electricity transmission owners (SSEN Transmission, SP Transmission and National Grid Electricity Transmission) submit a range of potential network reinforcements designed to alleviate such constraints to the NGESO. This involves multiple options, often to address the same network constraints, which are then analysed and assessed on a GB wide basis to establish which investments are deemed economical and required. This process, known as the Networks Options Assessment (NOA)³, makes recommendations as to which investments Transmission

¹ <https://www.nationalgrideso.com/future-energy/future-energy-scenarios>

² <https://www.nationalgrideso.com/research-and-publications/electricity-ten-year-statement-etys>

³ <https://www.nationalgrideso.com/research-and-publications/network-options-assessment-noa>

Owners should take forward to alleviate current and forecast constraints across those pre-defined transmission system boundaries.

As part of last year's Pathway to 2030 Holistic Network Design, which set out the onshore and offshore electricity transmission infrastructure required to deliver the UK Government's 50GW by 2030 offshore wind target, the NGEN also refreshed its 2022 NOA report. The main change to this from previous NOA reports was a change in terminology from what was previously assessed as an 'earliest in service date' for all recommended reinforcements, to a 'required in service date' for all those reinforcements identified by the NGEN as 'required' and 'essential' to meet the Government's 2030 offshore wind target. This included the Beaulieu-Spittal 400kV overhead line project and the Spittal-Peterhead 2GW subsea HVDC link.

Why overhead and subsea solutions are required

Whilst we have set out the unequivocal and overarching system need for these reinforcements, there are several reasons why overhead lines are required alongside subsea cables. This includes the capacity that different technologies can enable, with 400kV overhead line double circuits capable of carrying around 5GW of electrical power when compared to 2GW for subsea cables, meaning multiple subsea cables would need to be developed, procured and delivered simultaneously to deliver the same capacity uplift. This would be extremely challenging in the timescales we are working towards to meet Government targets.

Furthermore, onshore reinforcements present opportunities to accommodate onshore electricity generation and demand connections, including the support of local and community decarbonisation ambitions. It will also enhance the resilience and security of supply of local electricity networks across the north of Scotland.

Finally, cost is clearly an important consideration, particularly given the cost of investing in the electricity transmission network is ultimately recovered by electricity bill payers in the Highlands and across GB and that is one of the key factors in the NGEN's assessment of proposed NOA reinforcements. The cost of HVDC subsea links and the associated HVDC Converter Stations that are required at each point these links connect to the onshore AC network are significantly higher than 400kV onshore reinforcements to deliver the same capacity uplift.

Next steps

Over the coming months, work will continue to assess potentially viable routes and substation locations, including the active consideration of alternative options and mitigations following stakeholder feedback. To help inform this ongoing development work, key environmental and engineering surveys will take place. A decision on which routes we intend to take forward is expected later this year which will then inform the development of more detailed route alignments, which will be presented for consultation towards the end of the year.

A frequently asked questions (FAQ) document is currently being finalised to further address the feedback received and a detailed Report on Consultation will also be published later in the year to explain how feedback has been considered to inform the ongoing project development. This will include targeted engagement with affected communities on potential route options and substation locations.

Where we are unable to respond positively to feedback received, we remain fully committed to ensure we explain the reasons why that is the case.

Whilst the next round of formal consultation is planned towards the end of 2023, we will continue to engage with stakeholders between now and then as we further refine our plans. For more information, please visit the dedicated project webpage⁴.

⁴ <https://www.ssen-transmission.co.uk/projects/project-map/spittal--loch-buidhe--beauly-400kv-connection/>