

TRANSMISSION

Beauly 132kV Redevelopment Project Overview

Who we are

We are Scottish and Southern Electricity Networks, operating under licence as Scottish Hydro Electric Transmission plc (SSEN Transmission) for the transmission of electricity in the north of Scotland.

The transmission network connects large scale generation, primarily renewables, to central and southern Scotland and the rest of Great Britain. It also helps secure supply by providing reliable connection to the wider network of generation plans.

We have a licence for the transmission of electricity in the north of Scotland and we are closely regulated by the energy regulator Ofgem. Our licence stipulates that we must develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

The Electricity Distribution network is connected into the Transmission network but the voltage is lowered by transformers at electricity substations, and the power is then distributed to homes and businesses through overhead lines or underground cables.

The aim of our proposed project is to replace ageing equipment and carry out reinforcement works required at Beauly substation to enable the connection of the Loch Luichart Extension II wind farm.

The project elements include:

- Decommissioning parts of the existing 132kV substation.
- Construction of a new 132kV gas insulated substation (GIS) building.
- Decommissioning of three existing transformers within the existing 132kV substation.
- Their replacement with three new transformers, all installed within noise enclosures.

Transformers allow us to increase and decrease the voltage of electricity when required, which allows delivery of electricity across the transmission network to be much more manageable and efficient.



Ageing 132kV equipment required to be replaced.

Planning and Consent

SSEN Transmission are holding this second virtual consultation, as part of the statutory Pre-Application Consultation (PAC) which is required for a major planning application. Following our consultation held in October 2020 and the first PAC consultation held in March 2021 feedback and comments gathered from these have been considered and incorporated where possible into this final design. We actively encourage your feedback and comments at this event too. Formal planning submission is planned for late Summer/early Autumn 2021.

Outwith the planning application and to accommodate these works, a section of the Beauly – Deanie overhead line will be replaced by underground cable to the new equipment. Four pylons adjacent to the substation will be removed.

New wood pole sealing end towers will be located to the north, this is the cable termination where the overhead line changes to an underground cable and will run into the substation.

This will enable cabling to be routed across the field to the new substation infrastructure. These works are not subject to the substation planning application but are an important wider consideration.

Separate consenting routes will be taken for these works, the approach will be agreed with The Highland Council and Energy Consents Unit and progressed in tandem with the substation application.



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Project Considerations

Key considerations arising from March 2021 consultation

Location and colour of GIS Building

Four potential locations were considered for the new 132kV GIS building. All of these were close to the existing Beauly Substation to limit the length of cable connections and associated environmental impacts and costs. Each option was considered in detail in terms of environmental (including community), technical, cost criteria and network security. The optimum location for the new development is to the immediate west of the existing 132kV substation. These options were presented to stakeholders and the public at our previous consultations.

In order to reduce its visibility from the road, the proposed position of the building is at a lower level than the existing 132kV platform, though still higher than the existing 400kV platform. The chosen level is a balance that reduces visibility, whilst still achieving key technical aspects such as appropriate cable routes and road gradients.

We are now seeking feedback on colour options for the proposed new 132kV GIS substation building. Suggested colour options are green, two-tone green, light grey or dark grey.



Image of the completed project.

Acoustic Noise Considerations

It is recognised that acoustic noise is a key concern for the local community and the project is being developed with that in mind. The three brand new transformers will be situated in similar locations to the existing transformers and will each sit within bespoke noise enclosures.

A construction and operational noise impact assessment will be prepared and submitted with the planning application.

We are also seeking feedback on colour options for the proposed acoustic enclosures for the new transformers. Suggested colour options are green or grey.

If you have any questions or require further information regarding the proposed Beauly 132kV Redevelopment project please do not hesitate to contact the project Community Liaison Manager:

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Environmental Considerations

The impact of the proposed development on the environment and ecology has been considered at every step in the site selection and detailed design process. Environmental and ecology surveys took place in 2020 and further breeding bird surveys, badger surveys and bat roost surveys are currently underway.

This will help to ensure that the baseline environmental conditions are well understood and that appropriate steps are taken to minimise the impact on wildlife and the environment.

Detailed feedback on trees and planting was received during our March 2021 consultation event. We are looking in detail at how to improve the appearance and screening of the entrance to the existing 132kV substation. We can commit to providing additional planting where space allows to further screen the development as viewed from the A831. An off-site location will also be sought to provide compensatory planting to replace the mature trees lost as part of the proposed development.

Traffic Management

We recognise that traffic management along the A831 will be of particular interest to members of the community. We will create a robust traffic management plan in conjunction with The Highland Council agreeing appropriate and safe routes to and from the site. We aim to minimise disruption to road users, it is proposed Balblair quarry entrance as the main site construction access point for most of the construction traffic. Movement of abnormal loads will be restricted to take place outside peak flow hours to minimise disruption and appropriate signage warning road users of the presence of construction vehicles will be implemented. Measures will be in place to minimise dust and dirt being deposited on the roads due to construction operations.

Project Information

Information will also be available on the project web page and social media channels.

Project Website: www.ssen-transmission.co.uk/projects/

beauly-132kv-reinforcement-project

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