The need for the project

The European Union has set a target that 15% of Europe's energy requirements shall be met from renewable resources by 2020. The UK Government's contribution towards this target is to achieve 15% energy consumption from renewable sources by this date.

In order for these targets to be met Scottish Hydro Electric Transmission plc (SHE Transmission) is required to upgrade its network, and provide new infrastructure, to enable new renewable generation to connect in the north of Scotland.

The consented Strathy North Wind Farm requires a connection into the local transmission network.

Under SHE Transmission's Network Operators Licence this connection should be efficient, coordinated and economic, whilst having the least possible impact on the environment.

As part of the substation planning process we are consulting with The Highland Council and other key statutory bodies.

A pre-planning meeting was held with The Highland Council, and the Proposal of Application Notice (PAN) was submitted on 30 January 2013.

This information event is being held as part of the pre-application consultation process and we welcome your comments on our proposal.
Connagill 275 / 132 kV Substation

Site selection and optineering

Purpose

The purpose of optineering is to facilitate the design, consenting, construction and operation of the substation in a manner that is technically feasible and financially viable whilst causing, on balance, the least disturbance during construction and operation to the environment and the local population.

The process ensures SHE Transmission meets the requirements of Schedule 9 of the Electricity Act 1989 which require transmission license holders to:

- have a regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interests; and
- do what they reasonably can to mitigate any effect that the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.

Engineering assessment

The first part of the optineering process is to identify the best option for connecting the wind farm to the existing transmission network. Due to the large export capacity of the wind farm, and the distances involved, connection to the local 132 kilovolt (kV) network is not feasible.

Therefore the only efficient technical solution available is to connect to the 275 kV system, via the existing Beauly to Dounreay 275 kV tower line.

The connection is also required to accommodate other possible future developments in the area.
Site selection and optioneering

Environmental assessment

The optioneering for the substation and the new 132 kV overhead lines was undertaken as a single exercise to find the best overall connection option. Strath Halladale was identified as the best location for the substation due to the environmental constraints of the Caithness and Sutherland Peatlands SPA (Special Protection Area) and proximity to the wind farm, reducing the amount of new overhead line required.

There are only a few locations within Strath Halladale that provide suitable terrain and ease of access to construct the substation.

Sites adjacent to both Tower 33 and Tower 34 of the Beauty to Dounreay line were considered. Both have similar habitat types but topography and natural screening make a site adjacent to Tower 33 the best option.

The overhead line route selection looked at different options to connect to Tower 33, with the main constraint being the SPA.
**Proposed development**

Tower 33 on the Beauly to Dounray 275 kV tower line has been identified as the best substation location for the following reasons:

- Lowest environmental sensitivities.
- The site is quite level compared to other locations.
- Close access to the A897 for construction traffic.
- Better natural screening from views.
- Low proximity to properties.
- Least cost option due to greater constructability.

A full Environmental Appraisal is being undertaken for the development which assesses the impacts on:

- Ecology and ornithology
- Soils and hydrology
- Cultural heritage
- Habitat and flora
- Landscape character and visual amenity
Connagill 275 / 132 kV Substation

Proposed development

The development comprises:

- A new 275 / 132 kV substation with control building.
- Access track.
- Two new 275 kV towers to replace Tower 33 (separate application for Section 37 consent).
- Low voltage supply.

The layout and track alignment have been designed to maximise the use of materials on the site for screening and to ensure the archaeological features of the Connagill Township are not disturbed.
Landscape and Visual Design

The majority of visual receptors are located north-west of the site - from properties within Strath Halladale and from those travelling south on the A697.

The proposed location for the substation allows for some natural screening from these views, which will be further enhanced by a screening bund in front of the substation.

Excess material from creation of the substation platform will be re-used on site to create this screening bun, which will extend around and along the southern boundary. This will help mitigate views from the south and road.

In order to allow the landscaping to recover as quickly as possible and blend in with the surrounding landscape, turves of existing groundcover vegetation will be stored on-site during the works and used in vegetating the bund.
132 kV Overhead lines

The consented Strathy North wind farm will require a single 132 kV “Trident” (“H”) wood pole overhead line to connect to the Conagill 275 / 132 kV substation. In response to connection requests for other developments in the area, a second line, running in parallel, has been designed and will be applied for in case it is required.

The overhead lines are proposed to terminate to the east of the A897 and would enter the substation as underground cables to reduce visual impact.

The overhead lines will be subject to Consent under Section 37 of the Electricity Act 1989, which is to be applied for by SHE Transmission later this year.

A voluntary Environmental Appraisal has been undertaken to support the application.
Connagill 275 / 132 kV Substation

Planning process and indicative programme dates

**Substation planning process**
- Proposal of Application Notice (PAN) submitted – January 2013
- Planning application for substation – mid May 2013
- Section 37 application for overhead lines – May 2013
- Section 37 application for 275 kV towers – May 2013

**Substation Construction**
- Site Investigation – Completed in December 2012
- Substation construction works – 18 months from planning consent

**275 kV towers (Section 37 application)**
- Construction works – 6 Months from mid 2014, subject to consenting process

**132 kV connections (Section 37 application)**
- Construction works – 12 Months from early 2014, subject to consenting process

Substation planning process
- Initial Consultation with Planning Authority
- Site selection and investigation
- Submit Proposal of Application Notice (PAN)
- (Pre-application Consultation process begins)
- Public Consultation Event
- (feedback on proposals for consideration by SHET)
- Submit planning application
- (min 12 weeks after PAN and 4 weeks after Public Event)
- Statutory Consultation process
- (feedback direct to planning authority)
- Planning Consent decision
Giving us your feedback

You are invited to submit comments or concerns on the proposal now for consideration by Scottish Hydro Electric Transmission plc (SHE Transmission) in the preparation of our planning application.

Once the planning application is submitted to The Highland Council, there will be a further opportunity to comment on the proposal by submitting comments during the statutory consultation period for the application.

How do I have my say?

We are keen to receive comments and views from the local community and other interested parties on the proposal. Please also take the time at the event to speak to members of our project team, who are here to answer any questions you may have and explain the information presented on the boards.

Comments can be submitted as follows:

- **At the exhibition today** – complete a comments form and place it in the box provided.
- **By post** – complete a comments form and post it to our Liaison Manager (details opposite).
- **By email** – complete a comments form and email it to our Liaison Manager (details opposite).

Comments forms and all the information from today’s event will also be available to download from the project website at [www.sse.com/Connagill](http://www.sse.com/Connagill). Information can also be posted out to you by our Liaison Manager upon request.

Please make your comments as specific as possible in order to help us consider them in relation to our proposal. The closing date for comments is: **Wednesday 8 May 2013.**
About Scottish Hydro Electric Transmission plc

Scottish and Southern Energy Power Distribution is part of SSE plc. We own and maintain the electricity networks in the north of Scotland – the electricity transmission network (above 132kV) and the electricity distribution network (below 132kV). In Scotland, Scottish and Southern Energy Power Distribution comprises two businesses:

- **Scottish Hydro Electric Transmission plc (SHE Transmission)** which owns and maintains the electricity transmission network across the north of Scotland, in some of the UK’s most challenging terrain; and

- **Scottish Hydro Electric Power Distribution plc (SHEPD)** which operates the high and low voltage electricity network that distributes electricity to around 700,000 customers in north mainland Scotland and the Scottish islands.

Keeping the lights on and supporting growth

SHE Transmission owns around 5,000km of electricity transmission infrastructure which spans about 70% of the land mass of Scotland. Electricity networks like this provide a physical link between electricity generators and electricity users.

We have three main objectives over the next decade:

- To keep the lights on for our customers across the north of Scotland;
- To invest for a greener future; and
- To minimise, as far as possible, our impact on the environment.

Our approach

Throughout the life of our projects, we aim to work positively with the local community and keep people informed about what we are doing. This is particularly important when we are developing a proposal and want to understand what local people think about our plans.

We endeavour to take the time to discuss proposals with local community councils, encourage engagement from the wider community and listen to the feedback we receive. We will do our best to answer any questions and address issues or concerns that are raised with us.

If consent is granted, we will continue working closely with the local community during construction to ensure that our work has as little impact on the lives of those living and working in the area and as many long term positive effects as possible.