

## Project background

The area around Lairg is currently served by a single circuit 132 kilovolt (kV) overhead transmission line which runs from Cassley substation near the north end of Loch Shin to the Shin substation at Inveran, via the existing substation at Lairg.

The connection of additional renewable energy to the network in recent years means that the existing circuit is now at full capacity. In response to requests to connect from the proposed Sallachy and Dalnessie wind farms, as well as other projects at earlier stages in the planning process, SHE Transmission is seeking to develop a viable solution.

## The proposed reinforcement

The aim of the project is to overcome the current capacity issue in the Lairg area and enable proposed renewable energy projects in the area to connect.

The main elements of the proposed reinforcement are as follows:

- Construction of a new 275/132kV transmission substation near Lairg;
- Construction of a new 275kV double circuit overhead line supported by steel lattice towers from the proposed new substation to a substation which is being developed at Loch Buidhe, north of Bonar Bridge; and
- The removal of the existing 132kV overhead line and steel lattice towers between the existing Lairg substation and Shin substation.

## Current stage

The development of our proposal is currently in its very early stages. Since the summer, we have carried out some initial environmental studies and engaged landowners in the area to understand more about the main site and route options that we have identified.

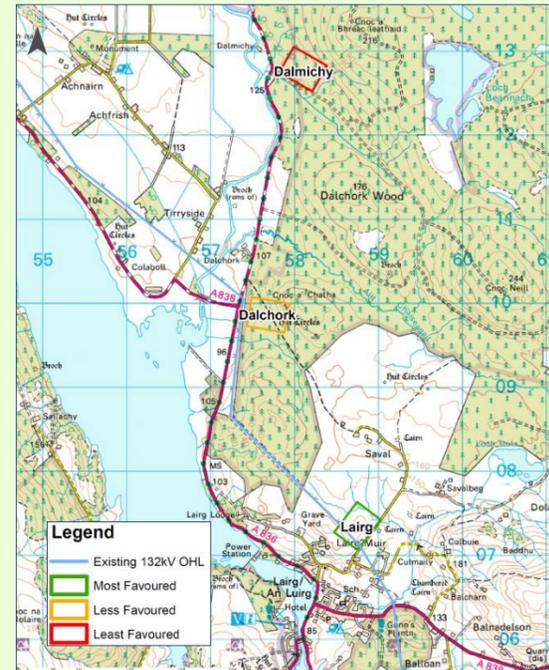
As part of the current consultation, we are presenting the initial findings from our assessments of the options (see pages 2 and 3 alongside). We would like to receive feedback on these options from interested members of the public so that this can be included in the decision-making process.

Once a substation site and overhead line route have been selected, more detailed design work will be carried out. Further consultation will take place on the resulting proposals before applications for consent are submitted to the planning authorities for their formal consideration.

## Substation site selection

We are seeking a site for a substation in the Lairg area with dimensions of approximately 310m x 238m, which is similar to the new substation which is already proposed at Loch Buidhe.

Preliminary investigations identified seven potential sites, from which a shortlist of three was taken forward for further assessment. These are indicated on the map below.



### Most Favoured - Lairg

The site option at the existing Lairg Substation is initially most favoured because:

- The existing Lairg substation is located at this site;
- Minor public road improvements required;
- Most economical solution with the shortest distance of new 275kV OHL required;
- Shortest Construction Period; and
- No woodland removal required.

### Less Favoured - Dalchork

The site option at Dalchork is less favoured because:

- Greater distance of new 275kV OHL;
- Higher cost and longer construction timescale;
- Significant woodland removal required;
- Woodland compensation required; and
- Extensive ground works required.

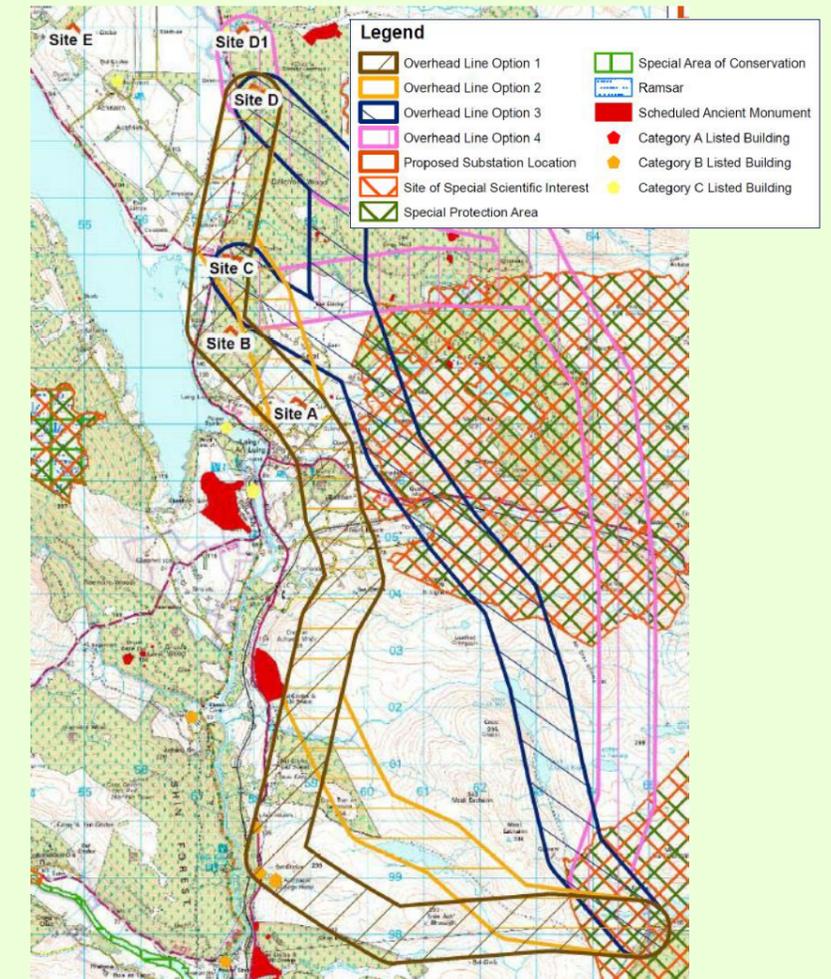
### Least Favoured - Dalmichy

The site option at Dalmichy is least favoured because:

- Greatest distance of new 275kV OHL;
- Reroute the existing 132kV OHL into this site;
- Highest cost and longest construction timescale;
- Additional public road improvements required;
- Significant woodland removal required; and
- Woodland compensation required.

## Overhead line route selection

Initial studies identified four feasible corridors which could accommodate a new 275 kilovolt double circuit overhead line between Loch Buidhe and the proposed new substation:



An initial environmental assessment was undertaken on each of the above routes to inform the site selection guidelines which SHE Transmission follows. This concluded:

- **Route Option 1** was **less favoured** in engineering and financial terms than the shorter route offered by Option 2;
- **Route Option 2** was **favoured** due to the shorter route and the least potential environmental affects;
- **Route Option 3** was **less favoured** due to impact on visual amenity at Strath Fleet and close proximity to a European designated site (Strath Carnaig and Strath Fleet Moors SPA);
- **Route Option 4** was considered **least favoured** due to the longest OHL route, poor access and remote terrain (and hence highest cost); potentially significant impacts to European designated sites (Strath Carnaig and Strath Fleet Moors SPA and the Lairg and Strath Brora Lochs SPA); and potentially significant impacts on protected species.

## Indicative development timescale

The current development and construction programme for the project is shown below (all dates are subject to relevant consents and approvals being obtained):

**Identification of site/route options** – Complete

**First public consultations** – November 2013

**Site/Route selection** – 2014

**Public consultation on developed proposal** – 2014 / 2015

**Apply for consents** – 2015

**Indicative construction period** – 2017 to 2019

**Removal of existing 132kV overhead line** – 2019

## Have Your Say

Both during the development of new projects and their construction, we believe that regular communication and consultation with those likely to be affected is very important.

Reflecting this approach, we are keen to receive comments, views and suggestions from local residents, community councils, elected representatives, key statutory consultees and other interested parties at this early stage.

This exhibition is your opportunity to contribute to the initial decision-making process and raise any questions that you may have. We would greatly appreciate your feedback on our proposals so please speak to a member of the team with any questions and complete one of our comments forms.

Alternatively, you can return a form or write to:

Gavin Steel  
Community Liaison Manager  
SSE, 10 Henderson Road  
Inverness  
IV1 1SN

T: 01463 728109  
M: 07584 313481  
E: [gavin.steel@sse.com](mailto:gavin.steel@sse.com)

To allow us to consider your views before we complete the site and route selection process, please send your comments to us before **Friday 13 December 2013**.

Project website address: [www.ssepd.co.uk/Lairg](http://www.ssepd.co.uk/Lairg)

## Scottish & Southern Energy Power Distribution

### Corporate Profile

Scottish & Southern Energy Power Distribution, part of SSE plc, owns and maintains two electricity networks in the north of Scotland - the electricity transmission network and the electricity distribution network.

In Scotland, SSE Power Distribution comprises two businesses:

- **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 northern mainland Scotland and the Scottish Islands.
- **Scottish Hydro Electric Transmission plc (SHE Transmission)** which owns and maintains the 132kV and 275kV electricity transmission network in the north of Scotland, in some of the UK's most challenging terrain.

Our first responsibility is to ensure the communities which we serve have a safe and reliable supply of electricity, and that we do everything we can to restore supplies as quickly as possible following interruptions.

### About electricity networks

Electricity networks provide an essential physical link between electricity generators and electricity users. As such, the owners of networks have statutory obligations including ensuring that they are able to provide an economic and efficient service to generators who wish to connect.

Electricity transmission businesses like SHE Transmission are natural regional monopolies. As a result, they are regulated by the Gas and Electricity Markets Authority (Ofgem) through a 'price control'. Amongst other things, this determines the framework for the capital investment that businesses are able to spend in maintaining and upgrading the networks.

SHE Transmission owns and operates around 5,000km of overhead transmission lines in the north of Scotland. We are responsible for maintaining and investing in this transmission network, which serves around 70% of the land mass of Scotland.

As the amount of renewable energy generation in Scotland increases, prompted by Scottish and UK government targets aimed at tackling climate change, changes in the electrical infrastructure are needed to allow the energy produced by these developments to reach areas where the power is required.

As owners of the electricity transmission network in the north of Scotland, we are required to make sure the electricity transmission network is capable of safely connecting and transmitting the energy produced by generators.

# Lairg to Loch Buidhe Transmission Reinforcement

## Scottish Hydro Electric Transmission plc (SHE Transmission)

- Existing Shin to Lairg 132 kilovolt overhead line at Gunns Plantation, by Lairg



## Public Consultations November 2013