

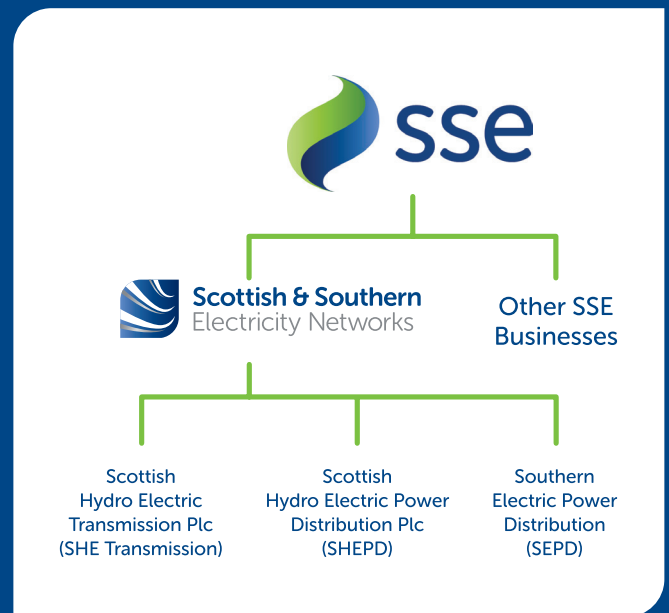
## Who we are

We are Scottish and Southern Electricity Networks, operating under licence as Scottish Hydro Electric Transmission Plc (SHE 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.



## Carradale Substation Reinforcement Project

The aim of our project is to reinforce Carradale Substation in order to enable renewable generation connection requests on the Distribution (SHEPD) network.



The project elements include:

- Replacement of two 60 MVA rated transformers with two 120 MVA transformers by the end of 2020.
- Replacement of two 90 MVA rated transformers with two 120 MVA transformers by Summer 2022.
- Minor modifications to and repositioning of existing equipment to accommodate the larger transformer size, including switchgear, earthing and auxiliary equipment.

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.

### Project Considerations

#### Operational Equipment

Scottish Hydro Electric Transmission aim to be recognised as a responsible developer and good neighbour. Therefore, our objective is to ensure that no negative noise impact is caused by our proposals.

In order to understand the effect of the proposed equipment on existing noise levels, a noise impact assessment was undertaken.

It considered the potential noise effects that could arise at the closest sensitive receptors in the vicinity of the substation and found that noise levels should be comparable to the existing.

The type of replacement transformer which will be utilised has also been carefully considered, with the decision to utilise ester filled transformers in replacement of the current mineral oil filled transformers.

Esters are dielectric fluids, which have been proven to have environmental, safety and performance benefits over traditional mineral oils.

## Project Considerations

### Traffic Management

We recognise that traffic management along the B842 will be of particular interest to members of the local community in Carradale. We endeavour to cause minimum disruption to local road users during the removal of the existing transformers and delivery of the replacement transformers. We will create a robust traffic management plan well in advance of deliveries, with advance notification of vehicle movements being provided to the wider community. We plan to utilise existing haul roads and forestry roads as much as possible to help minimise disruption.

### Environmental Considerations

A preliminary environmental appraisal has been carried out by our environmental consultants in order to assess and mitigate any potential environmental effects of the project.

A Preliminary Ecological Appraisal (PEA) was undertaken, which included a Protected Species Assessment to identify presence of badger, otter, water vole, red squirrel, pine marten, great crested newt, bats, reptiles and invertebrates. A Breeding Bird Survey (BBS) was undertaken of the Site and a 200m buffer ('Breeding Bird Survey Area'). Otter surveys were carried out for 200m upstream and downstream of the Site and camera trapping was carried out over a subsequent two-week period. The PEA found the Survey Area to be suitable for the above-mentioned species however the works will follow SSEN's Species Protection Plans, as well as industry standard pollution prevention measures and the PEA will continue to be referred to as works commence.

### Site Compound

A temporary site compound will be created adjacent to the substation in the North Field. The existing entrance will be upgraded (tarmacked) and a hard standing created to facilitate the site parking, site accommodation (cabins), welfare facilities, laydown areas, skips etc.

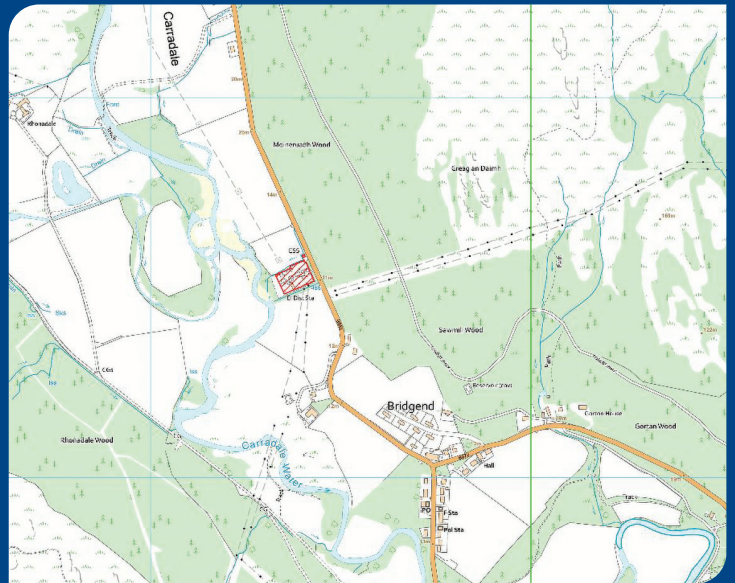
Furthermore, a new temporary pedestrian and vehicle entrance will be created into the substation directly from the compound to eliminate pedestrian traffic and reduce construction traffic activity on the B842. Work will start on the site compound in early 2020 and the compound will be removed at the end of the works.

### Planning and Consents

All works are within the existing substation site and as such are classed as Permitted Development meaning that planning permission is not required, nor is it required for the proposed contractor's compound as it is directly adjacent to the site.

We did however submit planning applications to Argyll and Bute Council for tarmacking the existing bell mouth (access) into the North Field and for some minor alterations/improvements to the north drainage ditch, just outside the substation, which we have now received permission for.

## Project Location



Carradale Substation is located to the West of Carradale adjacent to the B842 and Moineadh Wood.

## Keep up to date

### Information

Information will also be made available via the project web page and social media channels:

### Project Website:

[www.ssen-transmission.co.uk/projects/carradale-substation](http://www.ssen-transmission.co.uk/projects/carradale-substation)

**Find us on Facebook:** SSEN Community

**Follow us on Twitter:** @assencommunity

**If you have any questions or require further information regarding the SHE Transmission's Carradale Substation Project, please do not hesitate to contact the project Community Liaison Manager:**



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