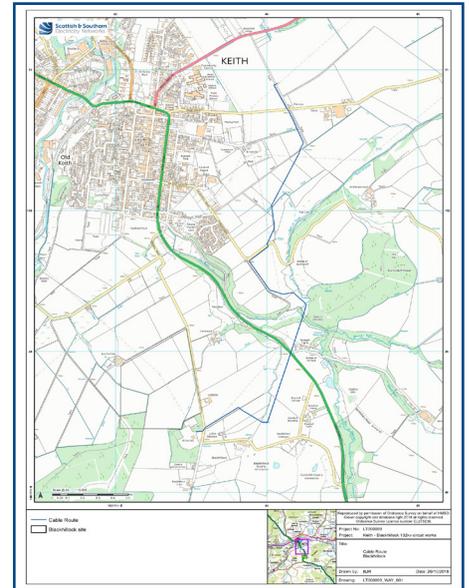


# Project Overview

## Project requirement

Contracted connection offers for a number of generators at Elgin Grid Supply Point (GSP), Keith GSP and Macduff GSP's are driving the requirement for reinforcement in the Keith electricity network area ahead of October 2020. Network studies were undertaken on the Keith network area to confirm the requirement for network reinforcement. The conclusion of these studies illustrated that the preferred option for the Keith network area is to remove the connection of Macduff GSP to Keith and to divert this to Blackhillock substation.



## Project solution/details

This reinforcement involves installing a new 132kV Under Ground Cable (UGC) between Blackhillock and a location next to Keith substation.

## Project timeline



### Cable

The cable connects into the existing MacDuff Overhead Line circuit which will be amended to facilitate the connection. The new circuit will then run between MacDuff and Blackhillock via the existing Over Head Line and new Under Ground Cable combination.

The Under-Ground Cable will be installed via a mix of open trench installation and duct systems throughout the route. At certain positions, like road crossings, the use of a Horizontal Directional Drill (HDD) technology will be adopted to limit disruption and de-risk installation. A total of six cables are to be installed to complete the installation.

### Overhead line

At Keith, two towers will be permanently removed with a third tower changed out to for a new cable sealing end tower. The remaining circuit to MacDuff from this point will remain as existing.

There is a requirement to erect a temporary bypass using wood poles in order to keep electricity supplies on during the tower change construction works.

## Substations

At Keith substation there will be a small amount of electrical equipment removed at the point of connection.

At Blackhillock substation there will be additional electrical components installed to facilitate the new cable connection. The works here will be wholly within an existing building.

At MacDuff substation there will be a small amount of non-invasive works required as the system is altered.

## Environmental considerations

### Visual Amenity

The main visual changes will be adjacent to Keith substation where two existing towers will be removed, and a third tower replaced with a cable sealing end platform tower. While there will be an overall reduction in electrical equipment at Keith Substation, the impact of this would be minimal beyond the extents of the substation itself. There will be no visual change to Blackhillock substation as this connection will be made via underground cable into an existing building. Some temporary visual impacts would result during construction of the project as crew and machinery move along the route installing the underground cable.

### Terrestrial Ecology (Habitats and Species)

The cable route crosses primarily through fields of improved grassland and arable crops, as well as a small area of woodland adjacent to the Burn of Drum. The cable route does not pass through any sites designated for their natural heritage or habitats of conservation concern. Species Protection Plans, devised by SSEN in conjunction with Scottish Natural Heritage (SNH), will be put in place to minimise potential effects to protected species during construction. The final cable route will be subject to minor adjustments to minimise felling of broadleaved woodland adjacent to the Burn of Drum.

### Water environment

The cable route crosses the Burn of Drum at two locations adjacent to Dunnyduff Wood. The watercourse crossings will be authorised by the Scottish Environment Protection Agency (SEPA), as required. Private water supplies will be identified, and an appraisal undertaken to determine potential risk to supplies. Where required, measures will be identified and put in place to ensure that the quality and quantity of water from these supplies would not be adversely affected.

### Noise

Due to the nature of cable installation, construction noise is considered to be short term and intermittent and will be controlled through the implementation of a Construction Noise Management Plan. There will be no audible noise from the underground cable once installed.

### Traffic and transport

A Construction Traffic Management Plan will be developed and used to control vehicle movements and numbers during the construction phase of the works to ensure minimal disruption to existing road users and minimise the use of noisy construction equipment outside of normal working hours. SSEN will liaise directly with the local community and provide advance notice of any planned road closures and/or diversions.

### Cultural heritage

There are no Scheduled Monuments, Listed Buildings or Gardens and Designed Landscapes identified within the vicinity of the cable route. There are five archaeological sites recorded on the Moray Sites and Monuments Record within 250m of the cable route, none of which are anticipated to be impacted by the proposed works. Due to the nature of the works (underground cable), important historic and cultural sites will not experience adverse effects on their setting following completion of the development.

### Ornithology

Pre-commencement checks for breeding birds will be undertaken prior to any construction works, and Species Protection Plans put in place as required to minimise potential effects on breeding birds during construction.

