



Tealing to Kincardine Upgrade Project: Conland Substation and overhead line upgrading

Public Consultation

Scotland is producing more clean, green energy than ever before, and we need to strengthen the transmission network so we can get it to the homes, schools and businesses that need it.

The Scottish and UK Governments are committed to increasing the use of renewable energy and have targets to achieve net-zero greenhouse gas emission by 2045 in Scotland and 2050 in the UK.

To help make this happen we need to increase the voltage of overhead lines in Fife from 275,000 volts (275kV) to 400,000 volts (400kV), and build a new substation at Conland, near Glenrothes, to strengthen the electricity transmission network and guarantee secure energy supplies for the future.

This leaflet tells you about our plans, where to find more information, and how you can give us your views.

The public consultation runs from Monday 28 April to Friday 23 May 2025.



Why do we need the new Conland substation?

Much of the electricity transmission network in Scotland is between 50 and 100 years old. It has grown and evolved to meet industrial needs and serve the expanding population, but the network in central Scotland will soon be at full capacity – unable to accommodate all the clean, green renewable energy we will all need in future.

The need for the Tealing to Kincardine Upgrade Project was identified by the National Energy System Operator in its Network Options Assessment (NOA), published January 2022. This project will increase the voltage of existing overhead lines through Fife and along the east coast of Scotland from 275kV to 400kV, allowing more energy to flow through the network.

The need for a new 275kV/400kV substation near the junction of the existing overhead lines north of Glenrothes was identified as part of this process. The new Conland substation will have a key role in enabling Scotland and the UK to meet Net Zero emissions targets while ensuring that power flows efficiently through the system in central Scotland.

What does the project involve?

We are still developing detailed plans, but the proposed new Conland will include:

- An area for the substation platform (on which the equipment will sit);
- A single-storey control building, housing electrical switchgear, plant and ancillary equipment;
- Two 400/275kV transformers;
- Air Insulated Switchgear (AIS) to connect each circuit;
- Access track from public road suitable for construction vehicles;
- Temporary road widening in places along Hill Road to allow two-way construction traffic;
- Internal access routes and vehicle parking;
- Drainage and mitigation (for example, landscaping, drainage pond); and
- A new 3m steel palisade fence around the live compound, and a post-and-wire fence around the perimeter for safety and security.

The new Conland substation will be similar to Denny North substation, shown on the front of this leaflet. The Tealing to Kincardine Upgrade Project also includes extending the existing substations at Mossmorran, near Cowdenbeath, and Westfield, near Ballingry, altering overhead lines where they enter the substations, and increasing their voltage from 275kV to 400kV.

How did you select the site for the new substation?

The new Conland substation needs to sit between the existing Glenrothes substation and the point where two existing high-voltage overhead lines meet (the YS and YT routes). We identified four possible site options and appraised them on criteria including: the landscape, proximity to residents, land use, forestry, biodiversity, peatland, flood risk, archaeology and technical difficulty.

The preferred site for the proposed new substation is on land north of Pitkevy Farm, Leslie. This site is further away from homes and next to the existing overhead lines, minimising the need for new overhead lines to connect it to the network. It also allows us to maintain supplies to the Glenrothes 275kV/33kV Grid Supply Point (GSP) at the same time.

You can find more information about the site selection process on our project website.

Overhead line changes

We will need to make minor alterations to the existing YT 275kV overhead line to connect it to the new Conland substation.

At the moment, the YT overhead line crosses the site for the proposed new substation. We plan to put up a temporary mast so we can divert the overhead line away from the site, removing the existing YT001 tower (pylon) and allowing us to build the new substation.

We will then need to put up one new tower to connect the new substation to the network before removing the temporary mast and line diversion.

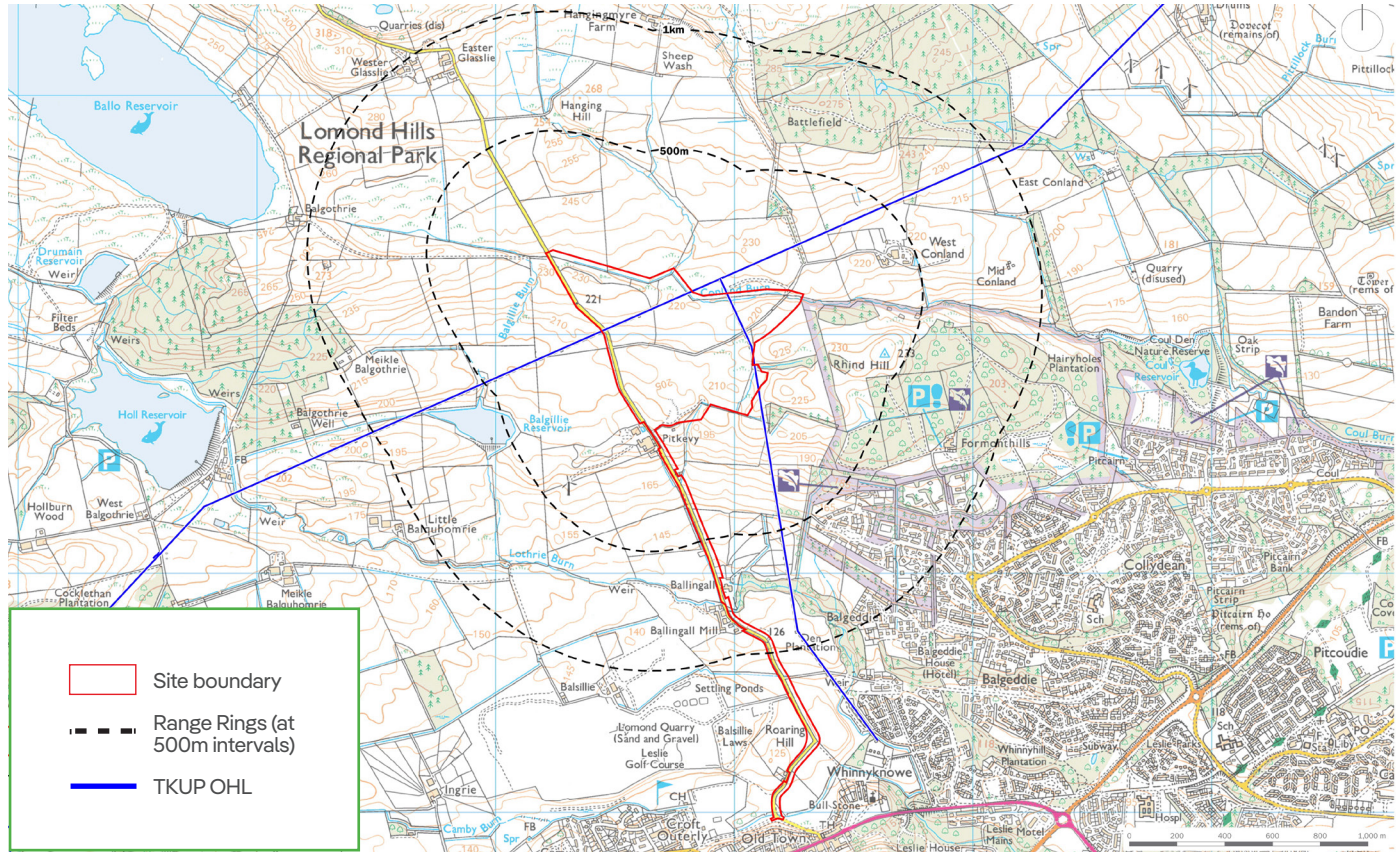
We will also need to make minor alterations to the existing YS overhead line, which runs parallel to the site, so we can connect it to the new substation. We plan to put up two temporary masts so we can divert the overhead line and build a new terminal tower between existing towers YS029 and YS030. This new tower will be connected to the new substation so we can increase the voltage of YS route from 275kV to 400kV before we remove the temporary masts and line diversion.

We will also need access to towers along the existing YS overhead line between Westfield substation and the north of our network area, near Falkland, to replace the conductors (wires), insulators and other equipment so we can increase the voltage from 275kV to 400kV. We will be talking to landowners about access arrangements, but you can find a route map showing our initial proposals on our project website.

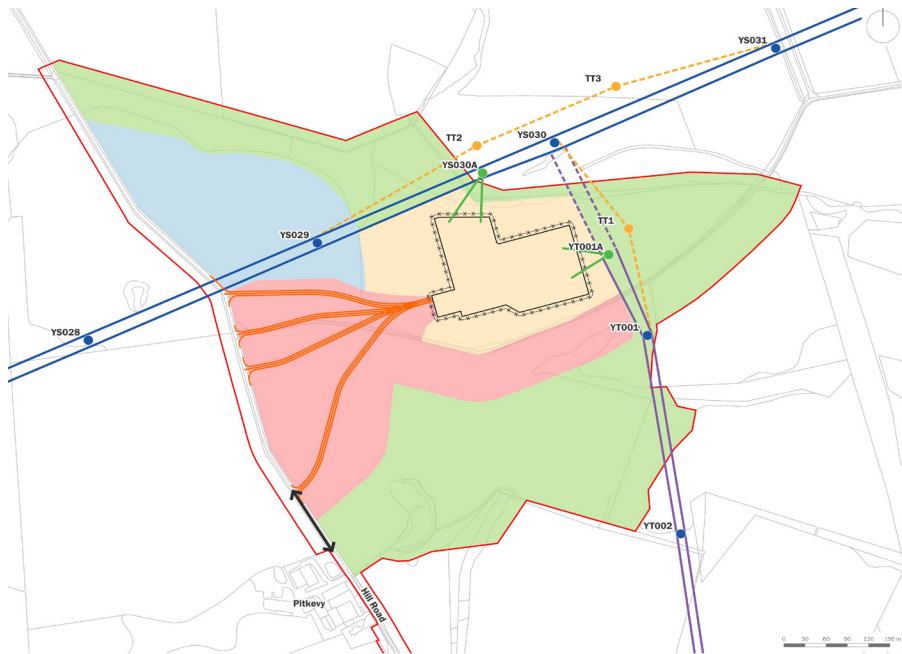
A new tower and span of overhead line is also proposed at Longannet substation (between the existing YJ and ZCN overhead line routes).



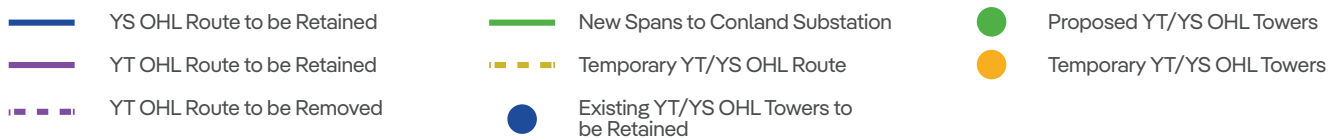
Conland substation location plan



Conland Substation detailed layout plan



SPT OHL Transmission Infrastructure



We want to hear your views

Our public consultation runs from Monday 28 April until Friday 23 May 2025.

SPEN attaches great importance to the effect our work may have on the environment and local communities. We want to hear what local people think about our plans for Conland substation, proposed overhead line uprating and access proposals, to help us develop the project in the best way.

Please come along to our public exhibitions

where you can see our plans in more detail and ask questions of the project team:

Monday 28 April, 2pm to 7pm:

Newton of Falkland Village Hall, Main Street, Newton of Falkland, Cupar, KY15 7QX

Tuesday 29 April, 2pm to 7pm:

Balgeddie House Hotel, Balgeddie Way, Glenrothes, KY6 3QA

You can find more information and project documents on our project website, where you can also fill in an online feedback form. If you don't have internet access, you can call our Freephone number to ask any questions you may have, or request a personal call back from a member of the project team. We can also send you a paper feedback form and a Freepost envelope so you can complete it and return it to us free of charge.

What happens next?

Following this first round of consultation we will develop detailed designs for the substation, including locations for buildings, access routes and working areas. We will publish a report summarising the feedback received and how this has influenced our proposals.

We will carry out a detailed Environmental Impact Assessment, and hold further consultation, before we finalise our proposals and submit planning applications under the Town and Country Planning (Scotland) Act 1997 (as amended) to Fife Council.

We will also need to submit applications to the Scottish Government Energy Consents Unit, under Section 37 of the Electricity Act 1989, for the proposed changes to the overhead lines and uprating in voltage.

At this stage, your comments are not representations to the planning authority. When we submit applications for development consent in the future, you will be able to make formal representations at that stage.

How to contact us

Email: tkup@communityrelations.co.uk

You can call us **free of charge** on: **0800 470 2376**

You can write to us **free of charge** at: **FREEPOST SPEN TKUP**

You can find more information about the project on our website:

www.spenergynetworks.co.uk/pages/tkup_project.aspx

