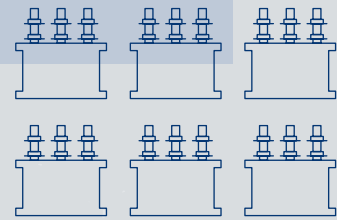




Scottish & Southern
Electricity Networks

TRANSMISSION

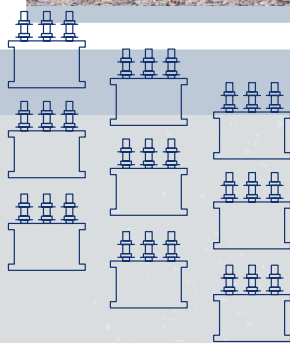
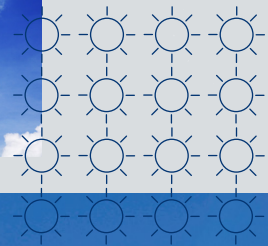


Willowdale/Clayhills Grid Supply Point (GSP) Upgrade

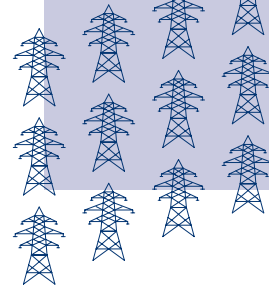
Transmission Reinforcement Project

Information Event

November 2025



ssen-transmission.co.uk/willowdale-gsp



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The event will be taking place on:

Tuesday 4 November, 2–7pm
Aberdeen Arts Centre, 33 King St, Aberdeen AB24 5AA



Powering change together



The time has come to further enhance Scotland’s energy infrastructure, providing power for future generations as we move towards net zero.

The shift to a cleaner, more sustainable future is about more than climate change. It’s about ensuring future generations have the same opportunities to thrive as we have all had.

Countries around the world are investing in their energy infrastructure to support the demands of modern economies and meet net zero targets. The UK is leading the way in building a modern, sustainable energy system for the future.

We all have a part to play

When it comes to net zero, we have to be in it together. The UK and Scottish governments have ambitious net zero targets, and we’re playing our part in meeting them.

We work closely with the National Energy System Operator (NESO) to connect vast renewable energy resources—harnessed by solar, wind, hydro and marine generation—to areas of demand across the country. Scotland is playing a big role in meeting this demand, exporting two thirds of power generated in our network.

But there’s more to be done. By 2050, the north of Scotland is predicted to contribute over 50GW of low carbon energy to help deliver net zero. Today, our region has around 9GW of renewable generation connected to the network.

At SSEN Transmission, it is our role to build the energy system of the future.

We’re investing over £20 billion into our region’s energy infrastructure this decade, with the potential for this to increase to over £30 billion. This investment will deliver a network capable of meeting 20% of the UK’s Clean Power 2030 target and supporting up to 37,000 jobs, 17,500 of which will be here in Scotland.



More information about the policies and documents driving the need for the energy system for the future can be found here:

Who we are

We’re responsible for maintaining and investing in the electricity transmission network in the north of Scotland. We’re part of SSE plc, one of the world’s leading energy companies with a rich heritage in Scotland that dates back more than 80 years. We are also closely regulated by the GB energy regulator Ofgem, who determines how much revenue we are allowed to earn for constructing, maintaining and renovating our transmission network.

What we do

We manage the electricity network across our region which covers a quarter of the UK’s land mass, crossing some of the country’s most challenging terrain. We connect renewable energy sources to our network in the north of Scotland and then transport it to where it needs to be. From underground and subsea cables and overhead lines to electricity substations, our network keeps your lights on all year round.

Working with you

We understand that the work we do can have an impact on our host communities. So we’re committed to minimising our impacts and maximising all the benefits that our developments can bring to your area. We’re regularly assessed by global sustainability consultancy AccountAbility for how we engage with communities. That means we provide all the information you need to know about our plans and how they will impact communities like yours. We want to hear people’s views, concerns, or ideas and harness local knowledge so that our work benefits their communities: today and long into the future. You can share your views with us at: ssen-transmission.co.uk/talk-to-us/contact-us/

Project overview

SSEN Transmission is the electricity transmission licence holder in the north of Scotland and has a statutory duty under Schedule 9 of the Electricity Act 1989 to ‘develop and maintain an efficient, coordinated and economical system of electricity transmission and to facilitate competition in the generation and supply of electricity’.

High level overview

As part of our license obligations, we are planning to upgrade the existing Willowdale Grid Supply Point (GSP) to reinforce the existing Aberdeen transmission network and support network resilience. Part of the project scope is to decommission the Clayhills substation and accommodate this equipment within a single, combined site at Willowdale GSP.

This will include:

- Four new Grid Transformers (GT) to replace the existing substation infrastructure
- A new 132 kilovolts (kV) double busbar at Willowdale, which will connect to the existing 132kV cable circuits serving Aberdeen

A GSP provides a connection between the transmission network operated by SSEN Transmission and the lower voltage distribution network, operated by SSEN Distribution which provides power to houses and business.

A busbar is a conductor that serves as a connection point for multiple circuits in a substation.

Project background

In June 2022, we consulted on our initial plans to extend and upgrade the Willowdale GSP. We received planning consent in June 2023 and began demolition work in September 2023. Since then, the project requirements have changed, and we are now required to submit a new planning application accordingly. We are holding a public information event in November 2025 to inform stakeholders of these changes and gather feedback.

Project requirement

A condition assessment for the existing Willowdale and Clayhills GSP substations has highlighted the poor condition of the existing transformers, their associated equipment, and the switchgear equipment.

The existing site off Willowdale Place has six 132kV cable circuits which are exposed to the coastal elements and are approaching the end of their design life. The equipment allows power to be routed around Aberdeen City Centre but is not configured in the same way a modern substation would be. The transformers were installed in 1967 and have performed well, however spare parts are becoming difficult to obtain, and the risk of faults is increasing with age.

Clayhills substation cannot be replaced under current standards in its current location due to space constraints. Therefore, we are proposing to update and extend the Willowdale substation with an improved layout of equipment that accommodates both Willowdale and Clayhills GSPs.

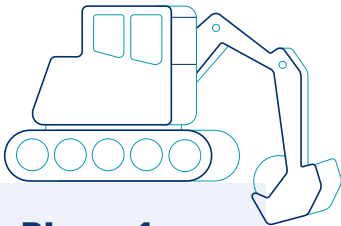
As well as addressing the poor condition of existing assets, the project will also support future demand for capacity of the transmission network. This demand is anticipated to come from the following sources:

- Electrification of transport and heat generation within Aberdeen City;
- Electrification of Port of Aberdeen;
- Additional future demand from re-development of the Aberdeen Beach area and the new Energy Transition Zone close to the harbour; and
- Existing and anticipated future demand from battery storage applications.



Project elements

The Proposed Development site is approximately 1.7 hectares and comprises the following key components.



- Construction of two control buildings (assumed to be approximately 7m in height) to serve the new combined Willowdale and Clayhills GSPs.
- Construction of a new 132kV double-busbar substation building at Willowdale with a minimum of 13 bays.
- Construction of four new buildings (with an approximate height of 16m) to accommodate 132/33kV grid transformers.
 - Two for Willowdale GSP to maintain current supply to the distribution network
 - Two will create a new connection point for the existing Clayhills GSP supply to the distribution network
- Upgrade of the protection system across the transformers and feeders, involving remote end upgrades, and installation of fault recorders.
- Installation of new security fencing and access gates, emergency lighting and CCTV surveillance systems.

The key tasks during Phase 1 of construction include:

- Phased decommissioning, removal and replacement of all existing infrastructure.
- Demolition of the buildings on both sides of Willowdale Place, and the buildings to the west of the existing site boundary;
- Establishment of secure construction site;
- Earthworks required to create level platform;
- Construction of foundations;
- Construction of new substation including substation buildings and associated electrical infrastructure, drainage infrastructure, on-site parking and access roads, security lighting, fencing and gates; and
- Inspections and commissioning.

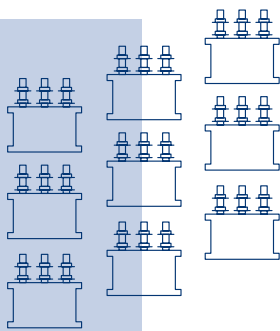
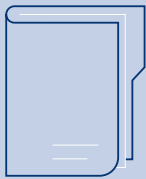
Phase 2: Decommissioning

As part of the decommissioning and removal of the Clayhills substation, we are planning to reduce the height of the existing walls to improve the overall appearance of the site, whilst maintaining adequate levels of security. The existing electrical plant will be removed, and the site will be left in a clean and tidy state.



The Town and Country Planning Process

The legislation that governs the planning and consenting of projects like the Willowdale/Clayhills substation upgrade is the Town and Country Planning (Scotland) Act 1997.



Steps taken so far

The planning authority responsible for determining the planning application will be Aberdeen City Council. The planning application will be made under the Town and Country Planning (Scotland) Act 1997. The status of the proposals as Environmental Impact Assessment (EIA) Development, is determined by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

An EIA screening request under these regulations was submitted to the Council on 23 May 2025. On 10 June 2025, the Council responded with a screening opinion confirming that the proposals are unlikely to have significant effects on the environment and therefore an EIA Report is not required. We will however undertake a voluntary Environmental Appraisal for the Proposed Development, which will support the planning application and will be made publicly available once the application has been submitted.

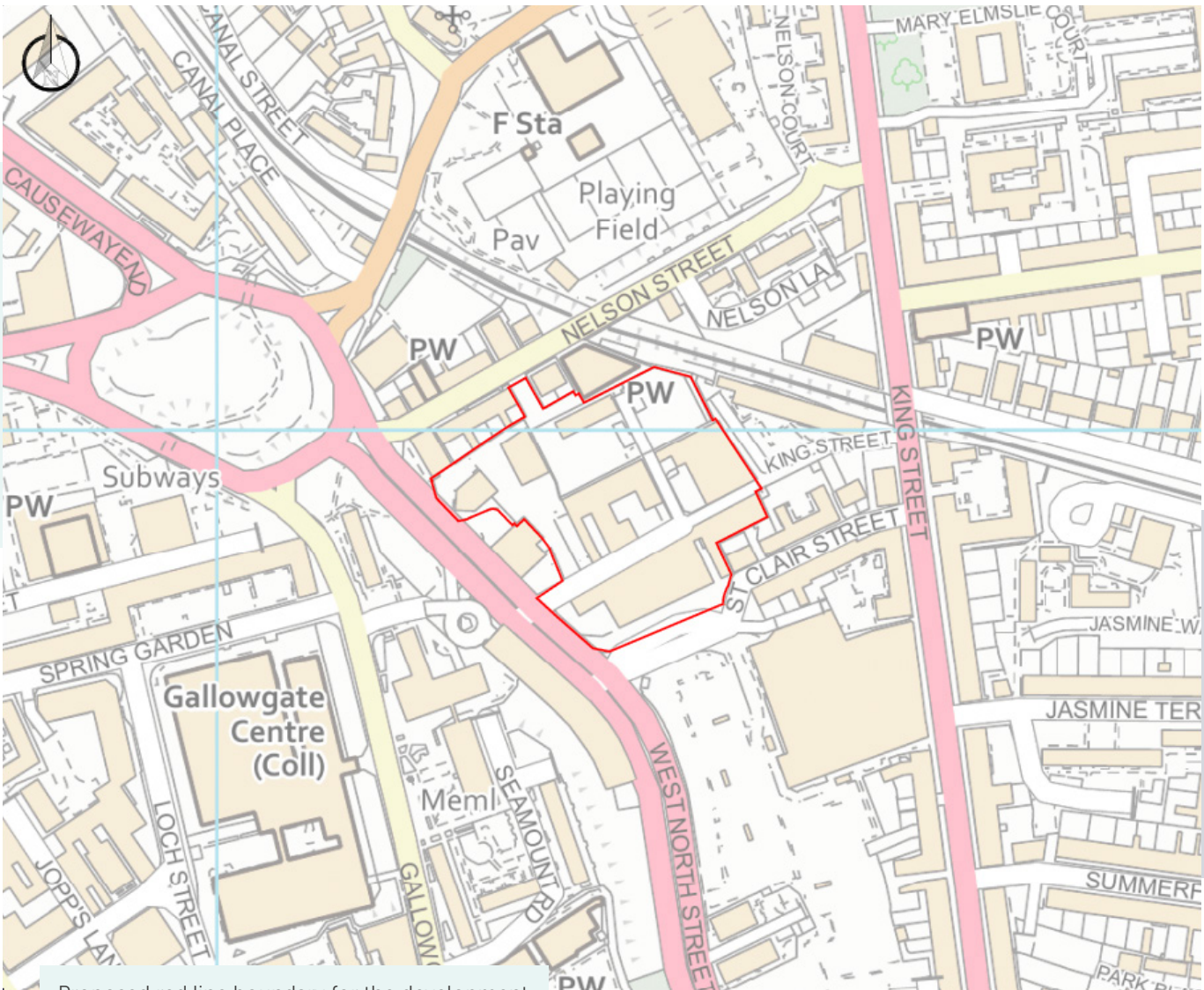
A Pre-Application Enquiry was submitted to Aberdeen City Council on 16 September 2025, via their formal online pre-application process. The Council's feedback will be taken on board and incorporated into the Proposed Development where required.

We aim to submit our planning application to Aberdeen City Council in early 2026.

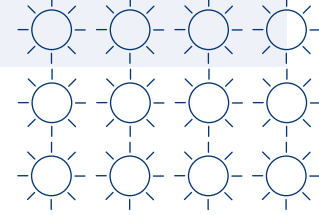
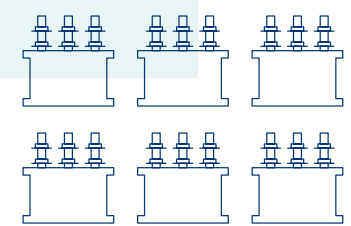
Please note that any comments provided via this feedback process are not representations to Aberdeen City Council. When the planning application is submitted there will be an opportunity to make formal representations to Aberdeen City Council.



Proposed development plan



Proposed red line boundary for the development



3D Visualisations

We understand that local stakeholders need to be able to visualise what the proposed changes to the development may look like in their local area.

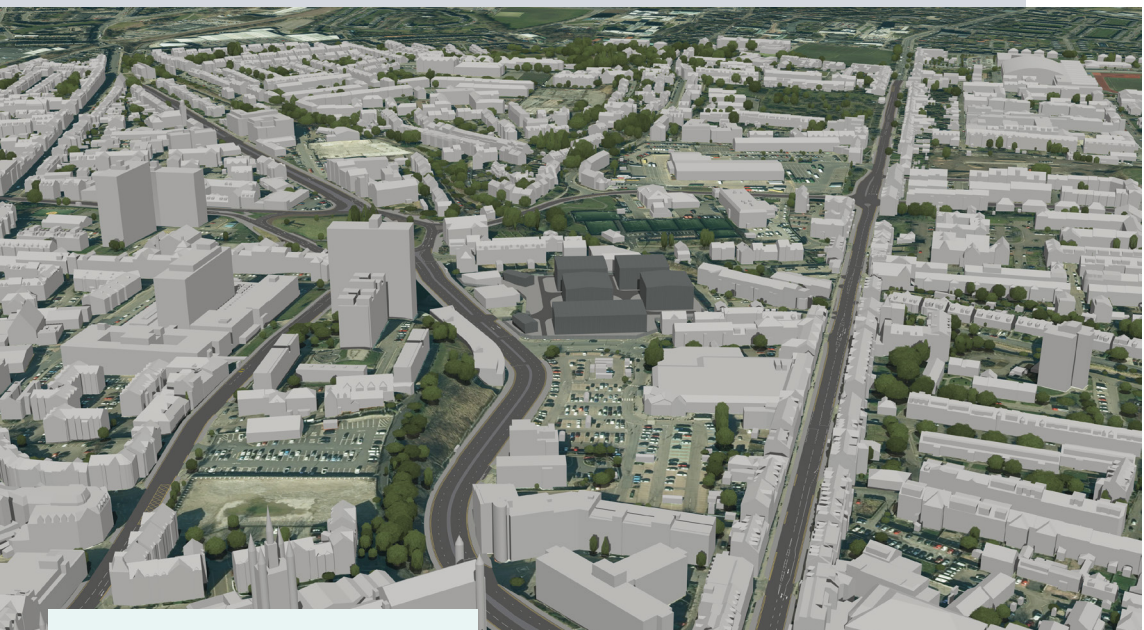
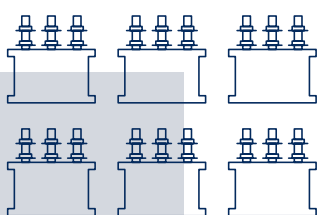
We have commissioned 3D visualisations which model the proposed changes to the substation into the local landscape to aid understanding of the proposals in terms of the visual impact. These are also available to view from the project webpage or via the QR code at the bottom of this page.



Existing substation layout - South



ssen-transmission.co.uk/willowdale-gsp



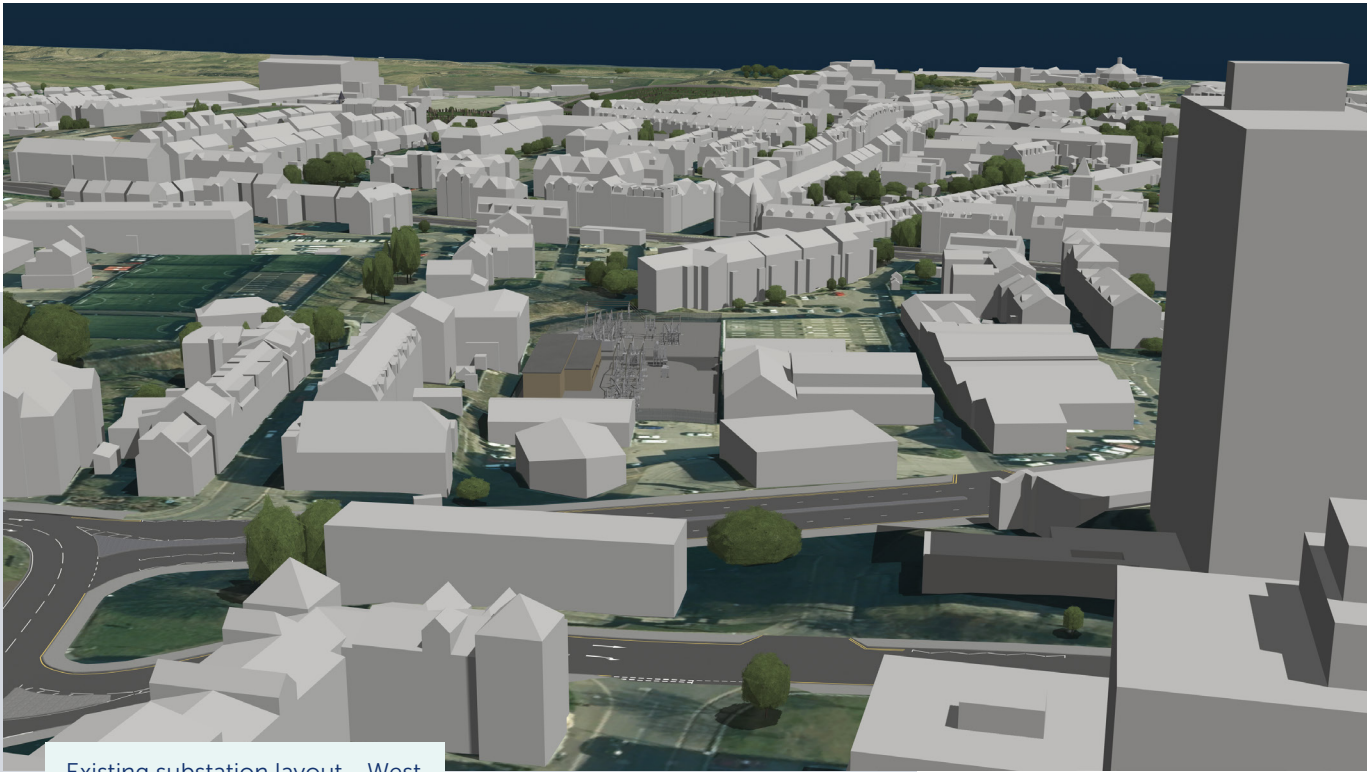
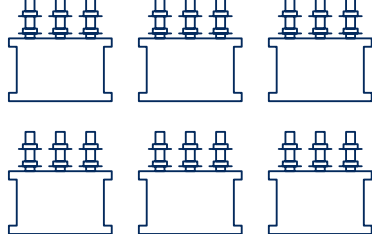
Proposed substation layout - South



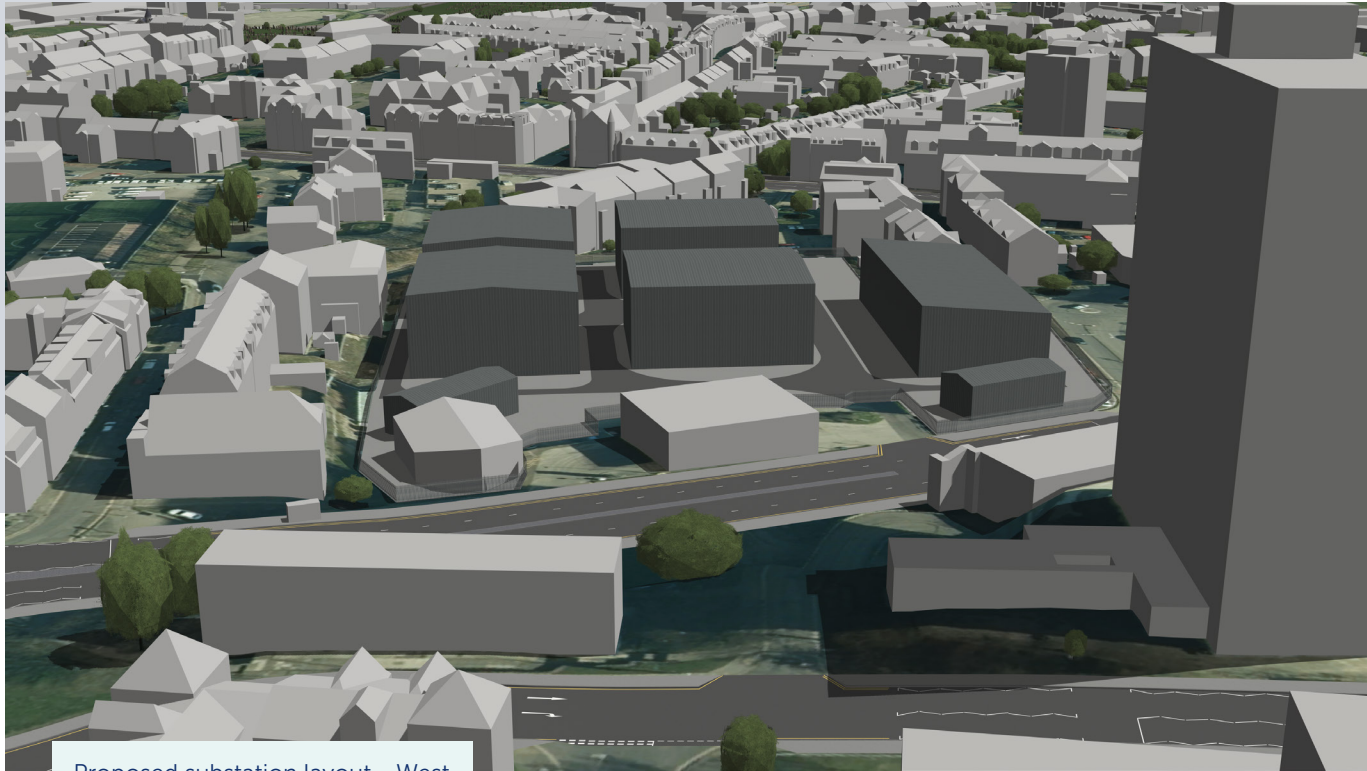
Existing substation layout - East



Proposed substation layout - East



Existing substation layout - West



Proposed substation layout - West

Key considerations

Transport and traffic

Given the short duration of peak construction traffic flow and the likely level of traffic required there are unlikely to be significant effects on local road users. The volume of traffic requiring access to the site on an average daily basis during construction will be described in a Transport Statement in support of the planning application. It is expected that a Construction Traffic Management Plan (CTMP) will be submitted and agreed with Aberdeen City Council and Transport Scotland as part of a pre-commencement condition.

The design of the site entrance and access road will comply with relevant highway design standards for the road network and will be agreed in consultation with Aberdeen City Council. The presence of slow-moving abnormal loads on the road network may cause some short-term congestion. However, this would be temporary, short-term and not likely to be significant. An abnormal loads assessment and swept path analysis will be undertaken in consultation with Aberdeen City Council and Transport Scotland prior to any abnormal load deliveries taking place.

Due to the nature of the project, operational traffic will be infrequent with access mostly required for routine inspection and maintenance.

Laydown and office

Temporary offices, welfare, and storage facilities for the main workforce will be established during the planned construction period. At this stage it is anticipated that these will be all be located within the proposed site boundary, but it is possible that there may be a requirement to locate some of these outside the site. Should this be the case, every effort will be made to locate them as close as possible to the site.

Environmental considerations

Protected species:

There is negligible potential for impact on designated sites due to limited connectivity with the Proposed Development and lack of supporting habitat for qualifying feature species. The adjacent railway line offers a potential bat foraging and commuting route. Bat surveys were completed in Q1 2025, and a bat roost assessment summary report has been produced. In summary, this ruled out the reasonable likelihood of a roost being present in the existing substation building. The existing substation building is therefore assessed as providing negligible bat roost potential. Additional habitat and species surveys will be undertaken as required, the results of which will be submitted with the future planning application.

An Environmental Clerk of Works (EnvCoW) will be employed to advise on site specific issues during construction as a mitigation measure. Any impacts will be controlled through implementing measures from our Species Protection Plans (SPPs) and pre-construction check surveys.

If works occur within the breeding bird season (April-October) measures within our Bird SPP such as micro-siting works, buffer zones, and pre-construction surveys by an EnvCoW will be implemented.

During operation it is not considered likely that significant effects would occur from the loss of habitat, or to bird or fauna species including in the surrounding area.

Noise

Given the proximity to properties, there is potential for temporary disturbance during construction works. A baseline noise survey will be undertaken and noise modelling completed to support the future planning application. Standard construction mitigation measures will be defined in the Construction Environmental Management Plan (CEMP) to control construction noise levels e.g. defined working hours, engines of stationary vehicles to be turned off etc.

All electrical equipment associated with the Proposed Development will be housed within substation buildings which will provide a level of acoustic mitigation. This means that the level of noise emitted during normal operation of the substation is not likely to be significant at the closest receptor. Results of noise modelling included in the Environmental Appraisal will be submitted with the Planning Application.

Due to the nature of the project, noise associated with operational traffic will be limited, with only infrequent access required for routine inspection and maintenance.

Air Quality

Given the urban nature of the site and surrounding area there is the potential for effects from dust or pollutants during the construction phase.

Standard mitigation measures adopted by our General Environmental Management Plans (GEMPs) on all projects and implemented via a CEMP will control this impact to a level that is not significant e.g. dust suppression measures, engines of stationary vehicles to be turned off, etc. The daily number of construction vehicles required is considered unlikely to result in a significant increase in air pollution.

Once operational, there would be no routine air emissions. There would be a backup diesel generator for emergency use, and this would be used only on a short term and infrequent basis.



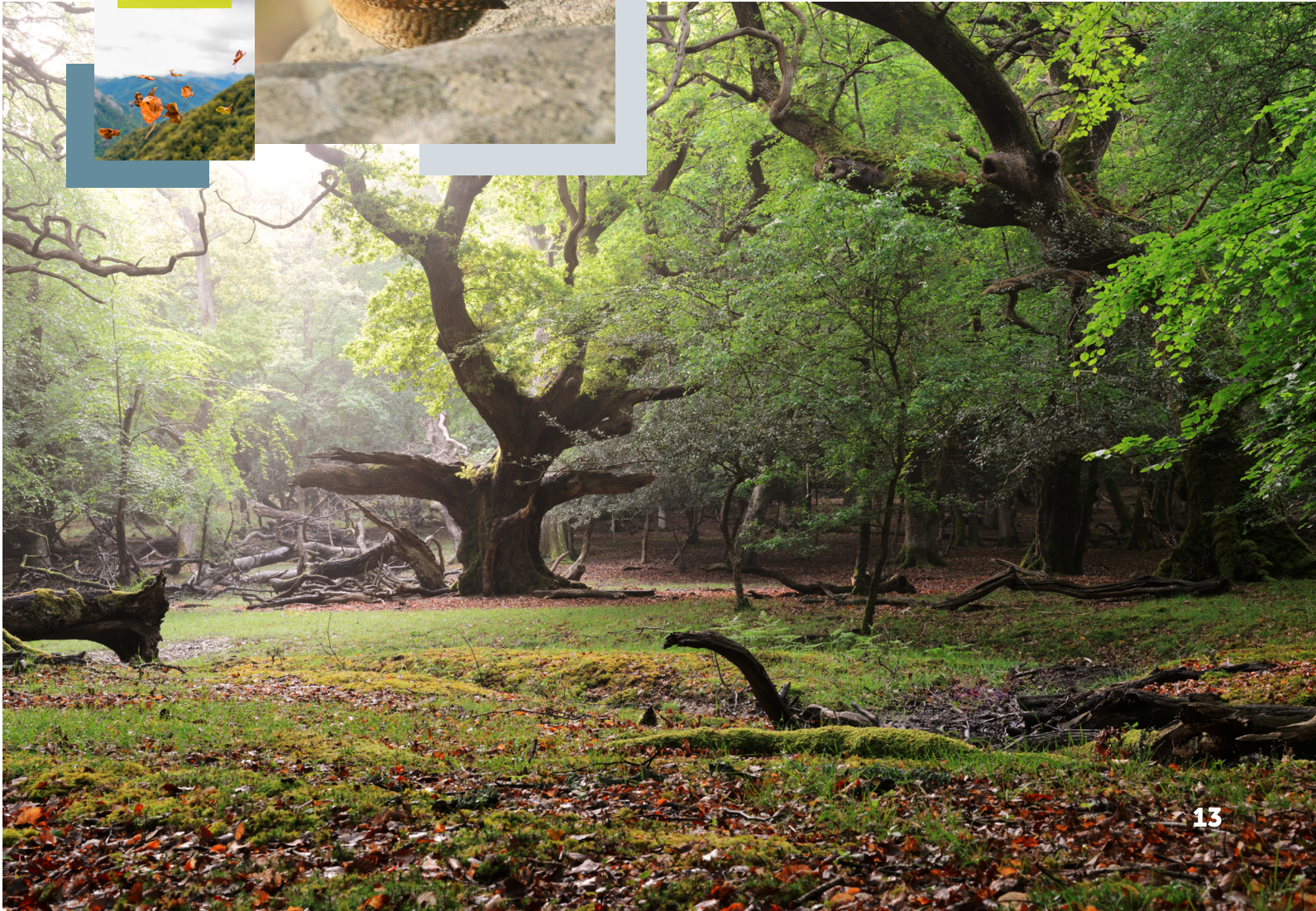
Cultural Heritage

The urban setting and established use of the site as a substation means that there is likely to be negligible to no impact on the setting cultural heritage assets within the surrounding area.

There are no known non-designated heritage assets within the Proposed Development area. Within 250 m of the Proposed Development, however, there are 68 known non-designated heritage assets. The closest two non-designated heritage assets are the Masjid Alhikmah and Community Centre, which is approximately 10 m to the north, and the Globe Cinema, approximately 20 m to the north.

Assessment of the archaeological context indicates the potential presence of unknown buried archaeology, despite the brownfield nature of the Proposed Development area. A mitigation strategy will be developed in consultation with the Aberdeen City archaeologist. This will aim to minimise impacts through fieldwork and input into project design.

It is not anticipated that there will be any impact to heritage assets during the operational phase.



Other projects in the local area

As the transmission operator in the north of Scotland, we need to maintain and invest in the high voltage electricity transmission network in our area to provide a safe and reliable electricity supply to our communities.

The assets that make up our Aberdeen 132kV ring network were originally built in the 1970s and many of these have either exceeded or are nearing the end of their economic and operational capabilities. Therefore, as well as the upgrade of the Willowdale GSP and decommissioning of the Clayhills GSP we have a few other projects within the city, as described below.

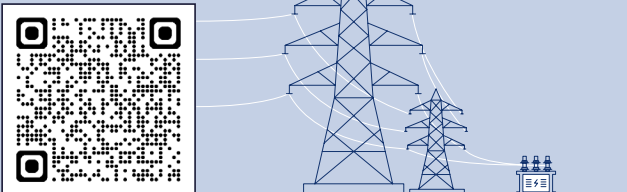
Redmoss to Clayhills Underground Cable Replacement

We are replacing the existing double 132kV cables that connect Redmoss and Clayhills substations as they are reaching the end of life and are the last gas-filled circuits in the Aberdeen ring network to be replaced. The replacement cables utilise our existing underground duct network, minimising excavation works, traffic management and road closures along the existing route. Construction is underway for this project and is expected to be completed by the end of 2025.

Craigiebuckler to Woodhill Underground Cable Replacement

We are replacing the existing double 132kV cable circuits that connect Craigiebuckler and Woodhill substations as they are reaching the end of life and require intervention. The scope is to replace the existing oil filled underground cable with Cross-Linked Polyethylene replacement, including the protection and communication systems associated with this cable type. This project is in the early stages of routing and we expect to conclude these works by 2031.

Search Projects



Local renewable developments:

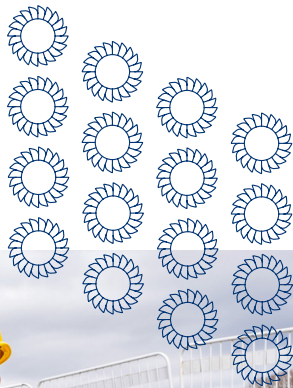
We know that local stakeholders are keen to understand the full extent of renewable developments being proposed in their local area.

Applications to connect to the transmission network in our licence area are made to National Grid ESO and undergo a lengthy process of assessment before we begin to develop a network connection for those developments.

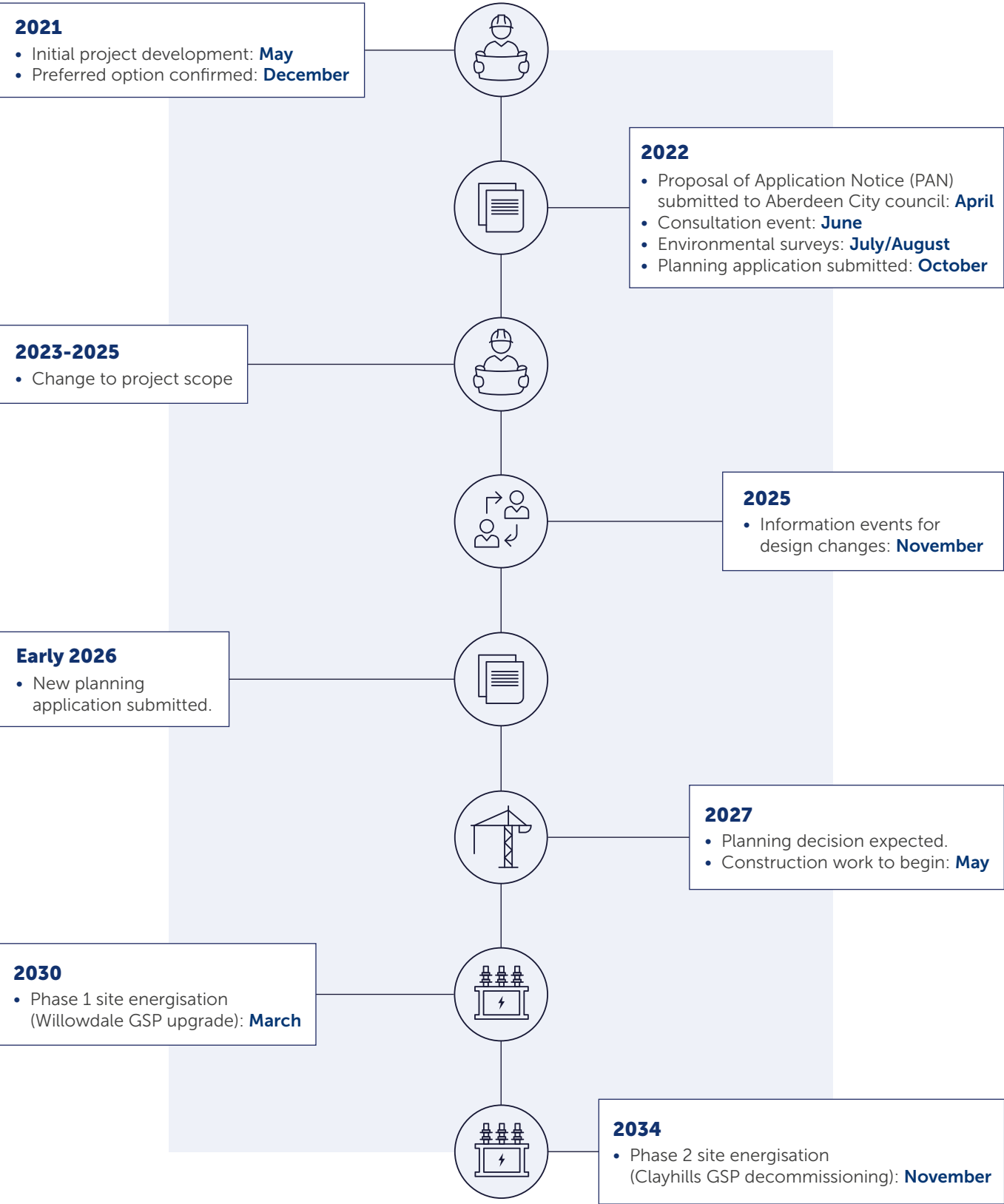
We aim to be transparent about the renewable developments looking to connect to our network but are not permitted to disclose any details of these developments until they are in the public domain.

A list of projects that hold contracts for Transmission Entry Capacity (TEC) with National Grid, the Electricity System Owner is available from their website: [Transmission Entry Capacity \(TEC\) register | ESO \(www.neso.energy/data-portal/transmission-entry-capacity-tec-register\)](https://www.neso.energy/data-portal/transmission-entry-capacity-tec-register)

Scan QR code below:



Project timeline



Have your say

We value community and stakeholder feedback. Without this, we would be unable to progress projects and reach a balanced proposal.

The Feedback Period

We intend to submit our planning application in early 2026. We will accept feedback from now until **2 December 2025**.

What we are seeking views on

During our last public consultation event in June 2022, we wanted to know your thoughts on our project plans and where you thought any improvements could be made. We are now asking for any final comments or feedback before submitting our planning application for the Willowdale GSP project. We'll be actively looking to mitigate the impact of the site as much as possible over the coming months, but it would be helpful to understand what you believe we should be doing to help minimise these impacts and if there are any opportunities to deliver a local community benefit you would like us to consider.



To support everyone online, we provide accessibility and language options on our website through 'Recite Me'. The accessibility and language support options provided by 'Recite Me' include text-to-speech functionality, fully customisable styling features, reading aids, and a translation tool with over 100 languages, including 35 text-to-speech.

Please select "Accessibility" on our website to try out our inclusive toolbar."

You can also follow us on social media:



How to provide feedback

Submit your comments and feedback by emailing or writing to your Community Liaison Manager. Any comments made to us as the Applicant are not representations to Aberdeen City Council as the planning authority. There will be an opportunity to make formal representations to the planning authority following the submission of the planning application.

Our Community Liaison team

Each project has a dedicated Community Liaison Manager who works closely with community members to make sure they are well informed of our proposals and that their views, concerns, questions, or suggestions are put to our project teams. Throughout the life of our projects, you will hear from us regularly. We aim to establish strong working relationships by being accessible to key local stakeholders such as community councils, residents' associations, and development trusts, and regularly engage with interested individuals.

Community Liaison Manager

Catherine Cowie



SSEN Transmission, Prime Four Business Park, Kingswells Causeway, AB15 8PU



catherine.cowie@sse.com

Additional information:



The best way to keep up to date is to sign up to project updates via the project webpage:

ssen-transmission.co.uk/willowdale-gsp

Your feedback

Thank you for taking the time to read this consultation booklet. In order to record your views and improve the effectiveness of our consultation, please complete this short feedback form.

Please complete in BLOCK CAPITALS. (Please tick one box per question only)

Q1. Do you feel sufficient information has been provided to enable you to understand what is being proposed and why?

☐ Yes ☐ No

Comments:

Q2. Have we adequately explained the need for the Willowdale GSP upgrade?

☐ Yes ☐ No

Comments:

Q3. Are there any factors that you feel may have been overlooked by the project team?

☐ Yes ☐ No

Comments:

Q4. Do you have any other comments or concerns in relation to the project?

☐ Yes

☐ No

Comments:

Q5. Do you have any community benefit opportunities you would like us to consider, or are there any local initiatives you would like us to support?

☐ Yes

☐ No

Comments:

Full name: _____ Email: _____

Telephone: _____ Address: _____

We would like to send you relevant communications via email such as invitations to stakeholder events, surveys, updates on projects, services and future developments from the Scottish and Southern Electricity Networks group listed below. If you are happy to receive email updates please opt in by ticking the box below. You can unsubscribe at any time by contacting us at stakeholder.admin@sse.com or by clicking on the unsubscribe link that will be at the end of each of our emails.

☐

If you would like to be kept informed of progress on the project, please tick this box

Thank you for taking the time to complete this feedback form.
Please submit your completed form by one of the methods below:

Post: SSEN Transmission, Prime Four Business Park, Kingswells Causeway, AB15 8PU

Email: catherine.cowie@sse.com

Online: www.ssen-transmission.co.uk/willowdale-gsp

For information on how we collect and process your data please see our privacy notice available at today’s event. This can also be obtained online at: ssen-transmission.co.uk/privacy

Comments forms and all the information from today’s event will also be available to download from the project website.

We intend to use Artificial Intelligence (AI) to assist our experienced teams in the analysis of your feedback, so we can categorise key points raised more quickly. You can learn more about how we’re utilising AI at: ssen-transmission.co.uk/AIFAQ

Any information given on the feedback form can be used and published anonymously as part of Scottish and Southern Electricity Networks consultation report. By completing this feedback form you consent to Scottish and Southern Electricity Networks using feedback for this purpose.

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460; (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having its Registered Office at Number One Forbury Place, 43 Forbury Road, Reading, Berkshire, RG1 3JH which are members of the SSE Group.



Notes

Notes