Clydesmill Substation Extension and Overhead Line Uprating

Report on preliminary round of public consultation held in February 2025

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Executive Summary

This report summarises a preliminary round of pre-application consultation (PAC) carried out by SP Energy Networks (SPEN) on its proposals for the Clydesmill Substation Extension and Overhead Line Uprating (DWUP).

SPEN proposes to extend the existing substation at Clydesmill to accommodate new 400,000-volt (400kV) transformers and equipment, in order to increase the voltage of a circuit on the existing overhead line between Clydesmill and Denny North substations from 275kV to 400kV. This will contribute to connecting Clydesmill to the planned new Kincardine North substation to ensure greater security of electricity supply in the future for the surrounding area, including Easterhouse, Clydesmill, and Newarthill.

SPEN carried out a preliminary round of public consultation with local residents and stakeholders on the proposals from Monday 3 February to Friday 28 February 2025.This included a drop-in event in Cambuslang on Friday 7 February.

Information on the proposals for Clydesmill Substation Extension and Overhead Line Uprating was available at all events and on the dedicated project website.

Whilst substation development does not fall under the schedules of development set out within the Town & Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, SPEN has elected to carry out a full Environmental Impact Assessment (EIA) of the proposals to ensure that potential effects of the substation on the local area are considered in detail.

This report provides:

- An overview of the project proposals
- A summary of the preliminary round of consultation, and feedback received
- Next steps in the process.

1. Introduction

1.1 The Need for Clydesmill Substation Extension and Overhead Line Uprating

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 and unable to accommodate all the clean, green renewable energy we will all need in future.

Every year the National Energy Systems Operator (NESO) carries out a Network Options Assessment (NOA) to determine what, if any, additional transmission network capacity will be required and economically justified to ensure current and future energy generation can flow from where it is produced to where it is needed.

The NOA identified a need to increase transmission network capacity in this area of Scotland by increasing the voltage of a circuit on the existing overhead line between Clydesmill and Denny North from 275kV to 400kV to allow more energy to flow through the system. To facilitate this, SPEN needs to extend Clydesmill substation to install two new 400kV transformers and associated electrical equipment.

The upgrade to the overhead line and extended 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.

1.2 The role of SP Energy Networks (SPEN)

SP Energy Networks is part of the ScottishPower Group. Through its wholly-owned subsidiaries SP Transmission and SP Distribution, it is responsible for the transmission and distribution of electricity in central and southern Scotland, and, through SP Manweb and SP Electricity North West, the distribution networks in North Wales and North West England. SPEN's role is to maintain, operate and invest in the networks to secure a safe, reliable, and economic service for current and future consumers.

Its transmission networks are the backbone of the electricity system in its area, carrying large amounts of electricity at high voltages across long distances. The distribution networks are local networks, which take electricity from the transmission grid and bring it into the heart of communities. SPEN's transmission network in Scotland consists of over 150 substations, more than 4,500km of overhead lines and more than 600km of underground cables.

As transmission licence holder for southern Scotland, SPEN (through SP Transmission) is required under Section 9(2) of the Electricity Act 1989 to:

- Develop and maintain an efficient, co-ordinated and economical system of electricity transmission; and
- Facilitate competition in the supply and generation of electricity.

SPEN is required to provide for new electricity generators wishing to connect to the transmission system in its licence area, to make its transmission system available for these purposes and to ensure that the system is fit for purpose through appropriate reinforcements to accommodate the contracted capacity.

Schedule 9 of the Electricity Act 1989 imposes a further statutory duty on SPEN to take account of the following factors in formulating proposals for the installation of overhead transmission lines:

- "(a) to have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features or special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and
- (b) to do what it reasonably can to mitigate any effects which the proposals would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects."

SPEN's 'Schedule 9 Statement' sets out how it will meet the duty placed upon it under Schedule 9. The Statement also refers to the application of best practice methods to assess the environmental impacts of proposals and to identify appropriate mitigation measures.

As a result of the above, SPEN is required to identify electrical connections that meet the technical requirements of the electricity system, which are economically viable, and cause on balance, the least disturbance to both the environment and the people who live, work and enjoy recreation within it.

1.3 The project proposals

The proposals that were subject to the preliminary round of consultation included increasing the voltage of the existing overhead line between Clydesmill substation and Denny North substation from 275kV to 400kV and extending the existing substation at Clydesmill.

1.3.1 Overhead Line Changes

SPEN needs to uprate one of the circuits – the east side – of the existing ZD overhead line between Clydesmill and Denny North substation from 275kV to 400kV to increase network capacity and ensure greater security of supply for the local area in future.

This will include making changes to two existing overhead lines, where they enter Clydesmill and Denny North substations. At Clydesmill, SPEN needs to install one new tower and a section of overhead line to the north of the site, replacing one existing tower and a short section of overhead line. South of the site, SPEN needs to install one new tower and remove two existing towers.

The works at Denny North substation will include two new towers and two new spans of overhead line. Please note this work will be carried out separately as part of the Denny to Wishaw Network Upgrade project and will require a separate Section 37 application to the Scottish Government's Energy Consents Unit. Minor alterations to the existing overhead lines are also required at Clydesmill to connect them to the new substation extension.

A map showing the overhead line uprating required is available on our project website.

1.3.2 Clydesmill substation

The proposals seek to extend Clydesmill substation to accommodate two new transformers. Works and equipment will include:

- 2 x 400/275kV 1000 MVA inter-bus transformers
- 2 x 400kV air-insulated switchgear circuit breakers
- 1 x 400kV bus section circuit breaker
- Air-insulated switchgear and busbar connections
- Gas insulated busbar connections (non SF6)

- Modular Control Building
- Vehicle access and parking
- Earthworks and drainage improvements
- A new 3m high, steel palisade fence and internal fencing around the live compound to ensure safety and security.

2 Approach to Pre-Application Consultation

2.1 Legislation and guidance

SPEN (through SPT) will be applying to South Lanarkshire Council for planning permission for an extension to Clydesmill substation under Section 57(2) of the Town and Country Planning (Scotland) Act 1997, as amended.

SPEN 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 the uprating in voltage.

The substation will operate at 400kV/275kV and therefore is classified as a national development in terms of the Scottish Government's National Planning Framework 4. This means that an applicant must carry out pre-application consultation and submit a report on the consultation.

2.2 SPEN's statutory and licence responsibilities

As a transmission licence holder for central and southern Scotland, SPEN (through SPT) is required under Section 9(2) of the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical transmission system.

SPEN also has a duty under section 38 of Schedule 9 of the Electricity Act 1989, to have regard to the desirability of the preservation of amenity, the natural environment, cultural heritage, landscape and visual quality. SPEN also considers the effect of work on communities when putting forward proposals for new electricity lines and other transmission development.

As a result of the above, SPEN is required to identify electrical connections that meet the technical requirements of the electricity system, which are economically viable, and cause, on balance, the least disturbance to the environment and the people who live, work and enjoy recreation within it.

2.3 SPEN's commitment to engagement

Stakeholder engagement, including public involvement, is an important component of the Scottish planning and consenting system. Legislation and government guidance aim to ensure that the public, local communities, statutory and other consultees and interested parties have an opportunity to have their views taken into account throughout the planning process.

In seeking to achieve this, SPEN recognises the importance of consulting effectively on proposals and being transparent about the decisions reached. SPEN is keen to engage with key stakeholders including local communities and others who may have an interest in the project. This engagement process begins at the early stages of development of a project and continues into construction once consent has been granted.

2.4 Consultation Strategy and approach

For proposals requiring consent from the local planning authority, SPEN's approach is not only to comply with the PAC requirements set out in the Town & Country Planning (Scotland) Act 1997 (as amended), but where possible to go further in order to engage as effectively as possible with local residents and stakeholders.

For proposals requiring consent from Scottish Ministers – such as for new overhead lines or alterations to existing ones – there are no formal requirements for pre-application consultation. However, when seeking consent from Scottish Ministers under Section 37 of the Electricity Act 1989, SPEN is embracing best practice as outlined in the *Scottish Government Energy Consents Unit (ECU) Best Practice Guidance* (July 2022) and the *Scottish Government Electricity Act 1989 Pre-Application Consultation and Engagement Guidance for Electricity Transmission Line Projects Which Require Environmental Impact Assessment* (May 2025). This guidance encourages applicants to engage with stakeholders and the public in order to develop their proposals in advance of such applications being made. Therefore, prior to the submission of consent applications, SPEN carries out consultation with stakeholders and the public.

Following the submission of consent applications, the Scottish Government ECU (on behalf of Scottish Ministers) and South Lanarkshire Council will carry out further consultation with the public and stakeholders.

The strategy for preliminary consultation on the proposed Clydesmill Substation Extension and Overhead Line Uprating was designed to ensure that stakeholders:

- were made aware of the proposals in a timely manner
- had access to project information and understood its development
- could put forward their own views and be confident that issues raised would be considered.

The formal Proposal of Application Notice (PoAN) submitted to South Lanarkshire Council set out a description of the development in general terms, including maps to identify the site, and SPEN's proposals for undertaking pre-application consultation for the substation extensions and associated works.

SPEN used a range of communication channels to publicise and promote the consultation, which are detailed in the following sections of this document. Respondents also had the opportunity to speak with the project team and provide feedback in different formats, depending on their preference:

- Email: clydesmill@communityrelations.co.uk
- Freepost: FREEPOST SPEN DWUP
- Freephone: 0800 470 2376
- Online via the dedicated project website: https://www.spenergynetworks.co.uk/pages/dwup.aspx
- Face-to-face or in writing at public consultation exhibitions.

3 Pre-Application Consultation

3.1 Consultation Strategy

SPEN attaches great significance to the effects its works may have on the environment and local communities and is very keen to hear the views of local people to help it develop the project in the most appropriate way.

The overall objective of the consultation process is to ensure that all parties with an interest in DWUP have access to up-to-date information and are provided with clear and easy ways in which to shape and inform SPEN's proposals at the pre-application stage. Key issues identified through this process are being recorded and presented to decision makers to assist the consents process.

As part of the consultation strategy, SPEN held an initial round of public consultation for the public, stakeholders and consultees to provide comments on the proposals. This initial round of consultation is the subject of this report.

Following revisions to the project proposals (taking account of feedback received and further technical and environmental assessments), a further round of public consultation will then take place, allowing local people and stakeholders to give their views on the updated plans.

This further round of consultation will be followed by a 'final feedback' event, at which SPEN will present its final proposals and explain how it has taken account of any further comments received.

3.2 The preliminary round of consultation

The initial round of consultation ran from Monday 3 February to Friday 28 February 2025.

SPEN wished to consult with relevant stakeholders and seek their views on the emerging proposals. The stakeholder groups that were identified for engagement include:

- Statutory and non-statutory consultees, including community councils
- Known local interest and community groups operating in the project area
- Elected members of South Lanarkshire and Glasgow Council areas, Members of Parliament (MP) and Members of the Scottish Parliament (MSPs) whose constituencies are within the South Lanarkshire council area
- Local residents, businesses and the general public.

A notification was sent via email to the project stakeholders advising them of the consultation and inviting them to the public events

A project leaflet was produced explaining the proposals, the purpose of the consultation and the process for submitting feedback.

The leaflets were distributed to properties (residential and business) within a defined radius of the project site, including the communities around Clydesmill (Cambuslang, Newton, and Westburn). This was the principal form of direct communication with the local community. A copy of the leaflet can be found in Appendix A1.

To promote the consultation, SPEN placed a formal newspaper advertisement in the Rutherglen Reformer and Glasgow Times for two consecutive weeks (w/c 27 January and w/c 03 February 2025). The advert introduced the consultation with some high-level information about the project including the proposals, details of the drop-in event and the ways in which feedback can be

submitted. A QR code linking to the project website was also included on the adverts. A copy of the advert can be found in Appendix A2.

The project leaflet, newspaper notice, project plans, FAQs, general information about the project and the consultation and a feedback form were made available on a dedicated project website: https://www.spenergynetworks.co.uk/pages/dwup.aspx. To make the website as accessible as possible, most communications created for the consultation included a QR code that linked through to the home page of the website. The website remained live following the consultation to ensure stakeholders can find out more and stay up to date on project developments.

A feedback form was made available in hard copy and online. Stakeholders could submit feedback in various methods as outlined in Section 2.4. Respondents were made aware via a data protection statement that any comments they made could be made available to certain bodies for the purposes of the consultation and for creating reports. This included the Scottish Government and relevant planning authorities.

The feedback form included six questions relation to the project proposals and an additional section that asked demographic data including title, name, address, telephone number, email address, asking if the respondent is responding on behalf of an organisation and if they attended the public exhibition.

The six project related questions were:

1. Do you have any comments on our plans for Clydesmill substation?
2. Do you have any comments on our plans to increase the voltage of the existing overhead line?
3. Do you have any comments on the proposed overhead line alterations at Clydesmill substation?
4. Do you have any comments on the proposed overhead line alterations at Denny North substation?
5. How did you find out about the project and the consultation?
6. Do you have any comments about our public consultation, or any other comments you would like to make?

The closing date for submitting responses to SPEN was midnight on Friday 28 February 2025. Following this date, the consultation information remained accessible on the project website and available to download.

No feedback forms were submitted during the consultation period, however the DWUP email and phoneline remained open for any further enquiries or comments.

SPEN held one public event for this initial consultation:

- Friday 7 February 2025, 2pm to 7pm. Cambuslang Institute, 37 Greenlees Road, Cambuslang, Glasgow, G72 8JE.

The venue, date and time were detailed in all project communications that had been issued.

At the events, stakeholders had the opportunity to drop in to view the project proposals and talk to members of the project team to discuss any questions or concerns that they had. The materials made available at the events included nine pull-up banners which provided detail on each aspect of the proposals, hard copies of maps at large scale, and relevant project documents. A copy of the banners can be found in Appendix A3.

The events were attended by a total of 25 people, including Clare Haughey MSP, a representative for Michael Shanks MP, a representative from Cambuslang Community Council, and local residents.

3.3 Topics raised during the consultation

11 non-statutory consultation responses were submitted by email during the consultation process. The main topics raised included:

- Concerns about possible health impacts, with reference to Electric and Magnetic Fields (EMFs), health and safety, mental health and quality of life
- Concerns about possible environmental impacts, with reference to the importance of nature and biodiversity to the community
- Questions around SPEN's local benefit measures, such as tree planting to protect local viewpoints and limit noise passing through
- Requests for future consultation events to be held at Halfway as well as Cambuslang, to increase opportunities for local people to attend.

Topics raised informally in discussions at the drop-in events included:

- Whether there would be opportunities for landscaping and screening to reduce the potential visual impact of the new substation equipment
- Whether there would be an increase in noise during construction or operation of the sites;
- How construction traffic would access the site
- Concerns over electric and magnetic fields (EMFs)
- Opportunities for community benefit funding.

Project team members explained that visual impact, landscaping, screening and noise would all be considered in the Environmental Impact Assessment Report (EIAR), which would also recommend any mitigation measures required.

The team also explained that a Traffic Management Plan would be agreed with the local authority prior to any construction works, to minimise the impact of vehicle movements wherever possible.

Community benefit funding could be available in relation to the new substation assets, but the project team explained that (at the time) this was still subject to discussion and approval with Ofgem, the energy industry regulator. The SP Energy Networks community liaison team would remain in contact with local community representatives throughout the project to discuss and agree how any future community benefit funding might be implemented.

3.4 SP Energy Networks' response to the feedback

The key themes that arose in the comments have been summarised below with a response from SP Energy Networks.

Table 1 Summary of the key feedback themes received during the consultation and responses from SP Energy Networks

Theme	Feedback Summary	SP Energy Networks' response
1. Health Impact	**Some respondents highlighted concern over the health-related impact of this development. Specifically seeking clarification on the impact of EMFs on those in the residential area.**	Wherever electricity is used there will also be electric and magnetic fields. This is inherent in the laws of physics – the fields can be modified to some extent, but if using electricity, then EMFs are inevitable. Like many other things that we encounter in nature, EMFs can be harmful at high enough levels. But the fields required, for example, to start interfering with the body's nervous system are much greater than those produced by the UK electricity system. Hundreds of millions of pounds have been spent investigating this issue around the world. Research continues to seek greater clarity; however, the balance of scientific evidence to date suggests that EMFs do not cause disease. The UK guideline limits are set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and have been adopted by the Government. SPT electrical infrastructure is built to comply with these guidelines. The 'EMF The Facts' document produced by the Energy Networks Association was made available at the consultation events. An EMF Assessment of baseline and modelled EMF levels will be carried out prior to the submission of any planning application to South Lanarkshire Council. Additionally, for this project we will be obtaining an EMF Assessment from National Grid to maintain adherence to appropriate levels.
2. Environmental Impact	**Some respondents felt that there would be a negative environmental impact due to the proposed development. They highlighted**	SPEN has an established process for carrying out Environmental Impact Assessment (EIA), which is reviewed regularly to ensure compliance with regulatory requirements for EIA. This process is explained in our document Approach to Routeing and Environmental Impact Assessment, which

Theme	Feedback Summary	SP Energy Networks' response
	the importance of wildlife, biodiversity and habitats to the community. They also queried disruption to walking and cycling routes. There were questions over the applicant's expertise in carrying out Environmental Impact Assessments.	is available on our website here: https://www.spenergynetworks.co.uk/userfiles/file/SPEN_Approach_to_Routeing.pdf SPEN's objective through EIA is to avoid, prevent or reduce likely effects on the environment and on people where possible. For the avoidance of doubt, the EIA will be completed **before** we submit consent applications, and an EIA Report (EIAR) will accompany our applications. It will also be published so that people can see how we have assessed the potential impact of our proposals, and any mitigation measures proposed or required. SPEN is committed to delivering positive outcomes for biodiversity in line with national planning requirements and internal corporate standards. In accordance with Scottish Planning Policy and Policy 3: Biodiversity of National Planning Framework 4 (NPF4), all developments must demonstrate a positive contribution to biodiversity. Additionally, SPEN adheres to the requirement of achieving a minimum 10% biodiversity net gain on all consented projects. In delivering this commitment, the project will aim to restore and protect the local ecosystem, ensuring a sustainable environment for wildlife and plant species. During the delivery phase of the project, mitigation measures will include: • **Removal of Invasive Species:** We will be identifying and removing non-native plants that threaten local biodiversity. • **Wildlife Habitat Enhancement:** Structures will be installed to provide shelter for various species. Regarding cycle routes and local path access, the cycle route NR75 will remain in place but may require a local temporary diversion or closure for short periods while works take place on either side of the cycle route. Any temporary diversion/closure will be minimal and signposted in advance of the works. The area east of the cycle track will remain open to the public as walkable land.

Theme	Feedback Summary	SP Energy Networks' response
3. Site Selection	**Some respondents felt that the proposal failed to consider alternative layouts, questioning whether other viable configurations had been properly assessed. Some respondents made suggestions for alternative options.**	As a regulated business we operate under strict regulatory requirements set by Ofgem, which means that we must prove that any investment is genuinely needed, that different options have been compared, and that the chosen solution delivers strong value for consumers. Because the cost of our work is ultimately paid for by end users through their energy bills, choosing the best-value option helps keep bills fair while still making sure the electricity network is resilient and fit for the future. The location of the substation platform has been designed after evaluation of multiple options. The proposed extension to the Clydesmill substation has been planned to the north of the existing 275kV compound to minimise the extent of platform civil works. The option of moving the substation to the west would result in a significantly higher amount of civil and OHL electrical works due to difference in levels of natural ground. The option of moving the extension to the west was reviewed, but has been rejected due to the following reasons: • Risk of flooding to the site • Transformer delivery constraints • Increased earthworks requirements and plant costs • Increased complexity of overhead line configuration for turning into substation. The option of establishing a 400kV single circuit south from Kincardine North on existing OHL routes to Wishaw substation was rejected for the following reasons: • Higher capital cost relative to current proposal. • Reduces the number of infeeds, and therefore security of supply, to the Easterhouse, Clydesmill, East Kilbride and Newarthill demand groups relative to the existing system and current proposal.

Theme	Feedback Summary	SP Energy Networks' response
4. Community Engagement and Consultation	**Some respondents felt that they were not engaged enough in this development; they requested information to be available on social media and highlighted that a lack of communication has resulted in community uncertainty surrounding the proposals.**	SPEN is committed to early engagement with local residents and stakeholders about development proposals. The first round of consultation in February 2025 was an opportunity to introduce the proposals to local residents and stakeholders, and to seek their views on our initial plans. There will be further public consultation on the plans before any consent applications are submitted, and residents will also have additional opportunities to comment directly to the consenting authorities once consent applications have been made. Prior to the initial consultation in February 2025, we mailed project information leaflets to over 1,000 addresses within approximately 1km of the substation site. We apologise if some addresses did not receive leaflets, or received them later than anticipated. This was due to third-party delivery delays outside our control. Notices advertising the consultation were placed in local newspapers prior to the start of consultation as this is a requirement of the regulations for pre-application consultation. We welcome suggestions on how we can improve our public engagement. Moving forward, we will continue to advertise the consultation in local newspapers, in line with pre-application consultation requirements, but we will also advertise the consultation on our social media platforms and have taken on board suggestions that we should hold future consultation exhibitions at Halfway as well as at Cambuslang. Our next round of consultations is now confirmed as follows: **Wednesday 11 February, 10am to 2pm: Halfway Hall, 26 Graham Avenue, Cambuslang, Glasgow G72 7RB** **Friday 13 February, 2pm to 7pm: Cambuslang Institute, 37 Greenlees Rd, Cambuslang, Glasgow, G72 8JE**

Theme	Feedback Summary	SP Energy Networks' response
5. Local Community Impact	**Some respondents felt that the approval of this application would negatively impact the character of the area and result in a reduction in property values.**	We recognise that the impact of our infrastructure may be an issue for many local communities and individuals, and our approach seeks to maximise distance from properties wherever possible, including the principal views from properties. Studies looking at the impact of building energy infrastructure near homes do not suggest long-term impact on house prices, indicating that national macroeconomic factors are the principal determinant. An example of a recent relevant study by Biggar Economics can be accessed here.
6. Local Benefits	**Some respondents asked for further information on local benefit measures the applicant will engage with to enhance the neighbourhood.**	In March 2025, the UK government published the guidance on community funding for transmission infrastructure, setting out eligible infrastructure and key principles underpinning this new form of funding. More information on the new guidance can be found here: Community funds for transmission infrastructure (accessible webpage) - GOV.UK. The initiative is a new model of community benefit funding, which differs from the voluntary contributions traditionally provided by renewable energy developers. As a regulated electricity transmission business, SP Energy Networks' activities are overseen by Ofgem, the UK's energy regulator, to ensure all spending is fair, efficient, and delivers measurable value for local communities. SPEN will follow the principles in the UK government guidance and work with key community stakeholders to identify areas eligible for funding.
7. Visual Impact	**Some respondents felt that this development would bring a negative visual impact (through height and lighting) and encouraged the applicant to put effective mitigation measures in place, such as landscaping and tree planting. They also raised concerns about the proposed drainage pond, and possible impact on local heritage sites.**	Our proposals for Clydesmill include a net reduction in the number of transmission towers (pylons), with the installation of two new towers and the removal of three existing towers. The height measurement for the substation platform is provisional and has not been definitively confirmed. A confirmation of height will be available in the design stage. However, there are no indications that the extension will be higher than the existing substation. Visual impact, landscaping and screening will all be considered in the Environmental Impact Assessment Report (EIAR), which will also recommend any mitigation measures required.

Theme	Feedback Summary	SP Energy Networks' response
		Following feedback received in the initial round of consultation, and further technical and environmental appraisals, we have reviewed our early proposals for drainage. The final detailed design will incorporate a flood risk assessment, and the SUDS will be suitably sized in line with the findings of the detailed hydraulic modelling, although we would anticipate that the design would include for minimum 1 in 3 side slopes. On completion, the SUDS pond would be dressed in topsoil/appropriate seeding to integrate into the surrounding environment. Regarding heritage sites, South Lanarkshire Council's scoping opinion confirmed that Historic Environment Scotland did not identify any concerns.
8. Noise	**Some respondents felt that this development would bring increased noise to the area during construction and operation, and requested further information on mitigation measures.**	A Noise Impact Assessment of baseline and modelled noise will be carried out by appointed noise consultants prior to the submission of any planning application to South Lanarkshire Council. Additionally, the EIA Report will include a standalone Noise and Vibration chapter, which will assess likely effects arising due to construction noise and vibration impacts, and operational noise. Mitigation measures will be outlined where required. SP Energy Networks will use industry compliant construction equipment and methodologies, and will undertake construction within accepted hours of working, unless otherwise agreed with the local authority. A Construction Environmental Management Plan (CEMP) will also be produced which will set out the controls and processes that are to be adopted to mitigate environmental impacts throughout a project, including minimising noise and vibration.
9. Construction Impact	**Some respondents felt that, during the construction period, they are likely to face issues with vibration, traffic, dewatering, noise and dust.**	The EIA report will include an assessment of construction traffic and operational noise. SPT will use industry compliant construction equipment and methodologies and will undertake construction within accepted hours of working, unless otherwise agreed with the local authority. A Construction Environmental Management Plan (CEMP) will be produced which will set out the controls and processes that are to be adopted to mitigate environmental impacts throughout a project, including minimising noise and vibration, the emission of dust and pollutants, and de-

Theme	Feedback Summary	SP Energy Networks' response
		watering where required. CEMPs are generally iterative and will develop throughout the construction programme. Further, a Construction Traffic Management Plan (CTMP) will also be produced which will provide preliminary details of proposed traffic management measures and associated interventions to be implemented during the construction phase of the Proposed Development to minimise disruption and improve safety. Similarly, the CTMP is considered a 'live' document and will be enhanced and expanded as appropriate before and during construction.
10. Timeline and Planning	**A respondent felt that the project was poorly planned and questioned the rationale for the proposals.**	SP Energy Networks is undertaking a programme of grid reinforcement across central and southern Scotland. With overall electricity demand projected to double by 2050, a modernised, resilient network is required to accommodate future energy needs and strengthen the nation's long-term energy security. The need for this project has been identified through the Network Options Assessment (NOA) conducted by the National Energy System Operator (NESO), and SPEN is now bringing forward proposals to meet this in line with UK government requirements.

4 Next Steps

SPEN is carrying out Environmental Impact Assessments (EIA) for the proposed extension to Clydesmill substation and the overhead line changes. SPEN will also hold a further round of consultation before we finalise our proposals.

SPEN will then hold a 'final feedback' event before submitting the EIA Report, and other supporting documents, with its planning application to South Lanarkshire Council for the extension to the substation. The Council will then invite representations from local people and stakeholders before deciding whether to grant planning permission, and to inform any conditions that may be required under permission.

SPEN will agree a Traffic Management Plan with the local authorities regarding vehicle movements and any road or access improvements that may be required.

SPEN will also submit applications to the Scottish Government Energy Consents Unit (ECU), under Section 37 of the Electricity Act 1989, for the proposed changes to the overhead lines and increase in voltage. The ECU will then carry out a further consultation, on behalf of Scottish Ministers, before Ministers make their decisions.

Appendices

Appendix A1: Project leaflet

Why do we need to extend Clydesmill 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.

More onshore and offshore wind farms, solar energy and battery storage are connecting to the power network, and we need to increase the voltage of the overhead transmission lines in this area from 275kV to 400kV, in keeping with the wider electricity transmission network, to create more capacity so we can get the energy from where it's produced to where it's needed.

Extending Clydesmill substation to accommodate new 400kV transformers and equipment will allow the voltage of a circuit on the existing overhead line between Clydesmill and Denny North substation to increase from 275kV to 400kV.

This will contribute to connecting Clydesmill to the planned new Kincardine North substation to ensure greater security of electricity supply in future for the surrounding area, including Easterhouse, Clydesmill, East Kilbride, and Newarthill.

The Clydesmill substation extension will also facilitate the connection of Boom Power's proposed new Aitkenhead Farm Battery Energy Storage System (BESS) development near Uddingston.

What will happen at Clydesmill substation?

The proposed extension to the existing Clydesmill 275kV substation will have similar equipment to SPEN's Kilmarnock South substation, pictured on the front of this leaflet.

This will include:

- 2 x 400/275kV 1000MVA inter-bus transformers
- 2 x 400kV air-insulated switchgear circuit breakers
- 1 x 400kV bus section circuit breaker
- Air-insulated switchgear and busbar connections
- 1 x 400/275kV 500 MVA autotransformer
- 1 x 400kV disconnector
- 1 x 275kV circuit breaker and associated disconnector
- Vehicle access and parking
- Earthworks and drainage improvements
- A new 3m high, steel palisade fence and internal fencing around the live compound to ensure safety and security.

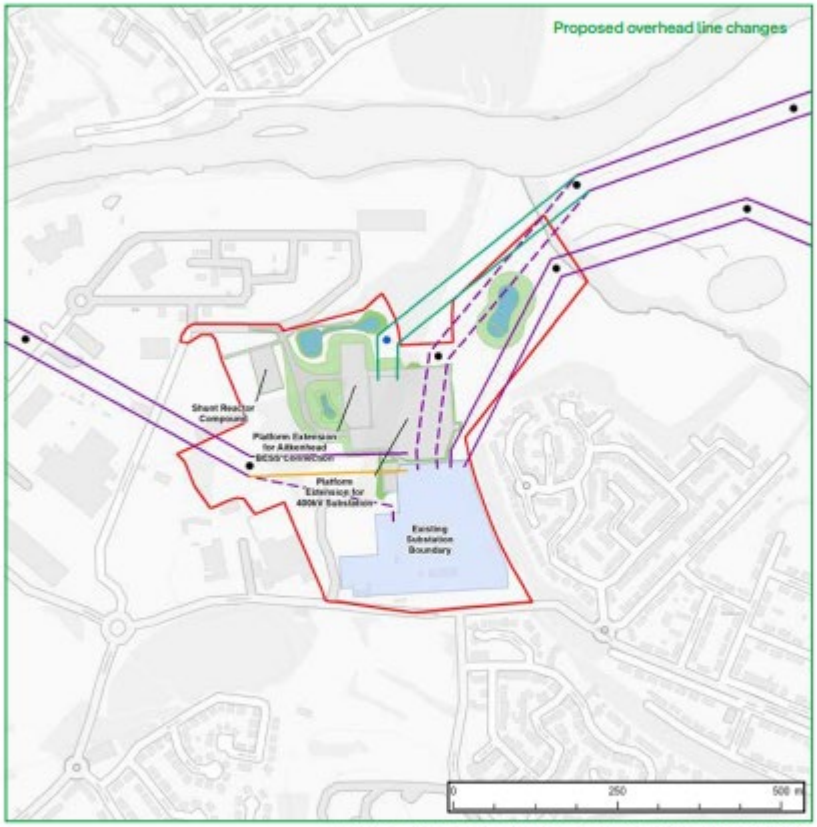
Overhead line changes

We will need to uprate one of the circuits – the east side – of the existing ZD overhead line between Clydesmill and Denny North substation from 275kV to 400kV to increase network capacity and ensure greater security of energy supply for the local area in future.

We will need to make changes to two existing overhead lines, where they enter Clydesmill and Denny North substations. At Clydesmill we will need to install one new tower and a section of overhead line to the north of the site, to replace one tower and a short section of overhead line. South of the site we will need to install one new tower and remove two existing towers.

The works at Denny North Substation will include two new towers and two new spans of overhead line.

The proposed changes at Clydesmill are shown on the plan in this leaflet. A more detailed plan is also available on the project website.



KEY

- Site Boundary
- Tower Location
  - Existing Tower
  - New Tower
- SPT Overhead Transmission Network
  - Retained
  - Proposed Diversion
  - Proposed Removal
  - Proposed Uprated
- Proposed Layout
  - Earthworks cut
  - Earthworks fill
  - Footpath
  - Platform
  - Retaining Wall
  - Roads
  - Suds / Swale
  - Existing_Substation_Boundary

SP Energy Networks

We want to hear your views

Our public consultation runs from Monday 3 February to Friday 28 February 2025.

We are conscious of the effect our work may have on the environment and local communities. We want to hear what local people think about our plans, to help us develop the project in the best way.

Please come along to our public exhibition where you can see our plans in more detail, meet the project team and ask any questions you may have:

Friday 7 February 2025, 2pm to 7pm:
Cambuslang Institute, 37 Greenlees Road, Cambuslang, Glasgow, G72 8JE

All project documents are also on the project website, where you will also find an online feedback form. If you don't have internet access, you can call the 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 free of charge.

What happens next?

Following the first round of consultation we will publish a report summarising the feedback received and how this has influenced our proposals. We will develop a detailed design for the substation layout and overhead line alterations, including proposed locations for access routes, drainage and working areas.

We will carry out a detailed Environmental Impact Assessment before we finalise our proposals and submit a planning application under the Town and Country Planning (Scotland) Act 1997 (as amended) to South Lanarkshire 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 authorities. It is when we submit applications for development consent in the future that you will be able to make formal representations to the planning authorities.

How to contact us

You can email us at:
Email: clydesmill@communityrelations.co.uk

You can call us free of charge on:
Freephone: 0800 470 2376
You can write to us free of charge at:
Freepost: FREEPOST SPEN DWUP

You can find more information about the project on our website:
https://www.spenergynetworks.co.uk/dwup

Appendix A2: newspaper advertisement

Clydesmill Substation Extension and Overhead Line Uprating

SP Energy Networks

We'd like your views!

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.

To help make this happen we need to extend our Clydesmill substation in Cambuslang, to increase network capacity and guarantee secure energy supplies for the future.

We also need to increase the voltage of one side of the overhead line between Clydesmill and Denny North substations from 275kV (275,000 volts) to 400kV, and undertake alterations at each substation.

The project will play a key role in the fight against climate change, and the UK's transition to Net Zero, as renewable energy replaces old fossil-fuelled power generation.

We are now asking local people and stakeholders what they think about our plans, to help us develop the project in the best way.

Please come along to our public exhibition to see our plans in more detail and ask questions of the project team:

Friday 7 February 2025, 2pm to 7pm

Cambuslang Institute, 37 Greenlees Rd, Cambuslang, Glasgow, G72 8JE

You can also find more information and leave comments on our project website: **https://www.spenergynetworks.co.uk/dwup**

You can also contact us in the following ways:

Freephone: 0800 470 2376
Email: clydesmill@communityrelations.co.uk
Post: FREEPOST SPEN DWUP

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

Our consultation runs from Monday 3 February to Friday 28 February 2025.

Appendix A3: exhibition banners

Why do we need to extend **Clydesmill substation?**

SP Energy Networks

Much of the electricity transmission network in Scotland is between 50 and 100 years old.

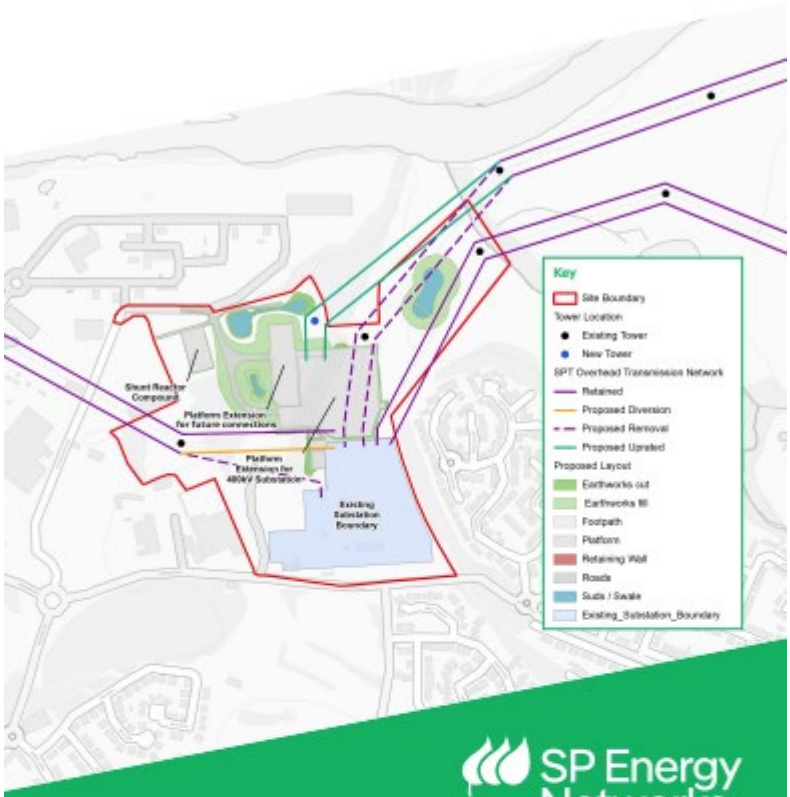
It has grown and evolved to meet industrial needs and serve the expanding population, but the network in central Scotland will soon be at full capacity – unable to accommodate all the clean, green renewable energy we will all need in future.

We need to increase the voltage of the overhead lines in this area from 275kV to 400kV so we can get more energy from where it's produced to where it's needed.

Extending Clydesmill substation to accommodate new 400kV transformers and equipment will allow the voltage of a circuit on the existing overhead line between Clydesmill and Denny North substations to increase from 275kV to 400kV.

This will contribute to connecting Clydesmill to the planned new Kincardine North substation to ensure greater security of electricity supply in future for the surrounding area, including Easterhouse, Clydesmill, East Kilbride, and Newarthill.

What does the **project involve?**



SP Energy Networks

The proposed extension to the existing Clydesmill substation will include:

- 2 x 400/275kV 1000MVA inter-bus transformers
- 2 x 400kV air-insulated switchgear circuit breakers
- 1 x 400kV bus section circuit breaker
- Air-insulated switchgear and busbar connections
- 1 x 400/275kV 500 MVA autotransformer
- 1 x 400kV disconnector
- 1 x 275kV circuit breaker and associated disconnector
- Vehicle access and parking
- Earthworks and drainage improvements
- A new 3m high, steel palisade fence and internal fencing around the live compound to ensure safety and security.

Overhead **line changes**

SP Energy Networks

We will need to uprate one of the circuits – the east side – of the existing ZD overhead line between Clydesmill and Denny North substation from 275kV to 400kV to increase network capacity and ensure greater security of energy supply for the local area in future.

At Clydesmill we will need to install one new tower (pylon) and a section of overhead line to the north of the site, to replace one tower and a short section of overhead line. South of the site we will need to install one new tower and remove two existing towers.

The works at Denny North Substation will include two new towers and two new spans of overhead line.

We want to **hear your views!**

SP Energy Networks

Our public consultation runs from Monday 03 February 2025 to Friday 28 February 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, to help us develop the project in the best way.

Please give us your views on the proposed extension to Clydesmill substation, the proposed increase in voltage to the existing ZD overhead line route, and the proposed alterations to overhead lines at Clydesmill and Denny North substations.

You can find more information, project documents and plans, and an online feedback form at our project website:

www.spenergynetworks.co.uk/dwup

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

What happens **next?**

SP Energy Networks

Following the first round of consultation we will publish a report summarising the feedback received and how this has influenced our proposals.

We will develop a detailed design for the substation layout and overhead line alterations, including proposed locations for access routes, drainage and working areas.

We will carry out a detailed Environmental Impact Assessment before we finalise our proposals and submit a planning application under the Town and Country Planning (Scotland) Act 1997 (as amended) to South Lanarkshire 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.

About
SP Energy Networks

SP Energy Networks

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We all expect electricity to be available at the flick of a switch, 24 hours a day.

In southern and central Scotland the job of making sure that happens belongs to SP Energy Networks (SPEN). In fact we have a statutory duty to do it.

SPEN operates, maintains and develops the network of cables, overhead lines and substations which transport electricity to homes and businesses in southern and central Scotland, and onwards to where it's needed further afield.

The high-voltage electricity transmission network, which operates at up to 400,000 volts, is managed by SP Transmission plc, a wholly-owned subsidiary of SPEN.

We take electricity generated from wind farms, power stations and imports, and transport it through our transmission network – over 3700 km of overhead lines, over 600 km of underground cables and more than 150 substations – to local distribution networks, where the voltage is reduced for use in homes and businesses.

Electricity in **our changing world**

SP Energy Networks

Scotland is a world leader in the fight against climate change.

Our country has a target of Net Zero greenhouse gas emissions by 2045 – meaning that Scotland's contribution to climate change will end, definitively, in one generation.

We are in the middle of a transformation, with the energy we use increasingly coming from cleaner, greener sources, as many new renewable generators replace fossil-fuelled power stations.

At the same time, demand for electricity will grow rapidly over the next few years, with electric vehicles replacing petrol and diesel, and increased electrification of heating, industry and transport networks.

This huge change means we need to upgrade Scotland's electricity transmission network, so we can get this increasing amount of energy from where it's produced – often in different locations from before – to the homes, businesses, hospitals and public services that need it.

Our network is also crucial to the delivery of wider renewable energy objectives, due to its position in an area of outstanding renewable resource and our geographical location. We have a unique role in connecting renewable energy and transferring it to centres of demand, benefiting stakeholders, society and the fight against climate change.

Supporting the **communities we serve**

SP Energy Networks

We are on a mission to develop a safe, secure and resilient network that's ready for Net Zero, to tackle climate change and build a cleaner future for the communities we serve.

By upgrading our network to enable decarbonisation, we are unlocking long-term benefits for everyone – from a cleaner air to a more reliable supply of energy.

To make sure that local communities benefit from this transition, we have been funding community projects that boost social, economic and environmental wellbeing.

That is how we do our part at making this transition fair for everyone.

From 2018 to 2023, we delivered **our £20m Green Economy Fund**, which directly funded projects that support Scotland's green energy strategy and Net Zero targets.

- 35 projects including heat, transport, local energy systems and education
- Carbon savings of 637 tCO_2
- 58 new jobs created and 447 supported indirectly

Our **£5m Net Zero Fund** was launched in 2023 to provide guidance and support to communities in vulnerable situations, and contribute to the national Net Zero objectives.

- Tailored Community Workshops to explore solutions to local Net Zero challenges
- Project Planning and Feasibility Support to develop robust project plans
- Funding Net Zero community initiatives which support vulnerable groups of people

The UK Government is also developing guidance for Community Benefit Funding for communities that host new transmission infrastructure projects.

We are awaiting publication of this guidance, but we want to be ready to start delivering for our communities when it's in place.

We have shared our initial proposal in our Community Benefit Consultation and incorporated community funding into our RIIO-T3 Business Plan, which we published in December 2024.

You can find out more on our website at www.spenergynetworks.co.uk/pages/community_benefits_funding.aspx

Uprating our overhead lines

SP Energy Networks

When we increase the voltage of overhead electricity transmission lines from 275,000 volts to 400,000 volts (275kV to 400kV), we may need to replace the existing conductors (wires), earth wire, insulators and other equipment.

In order to do this, we will usually need access to each existing tower (pylon). We work closely with landowners, occupiers, local councils and stakeholders to decide how and where to install temporary access routes and working areas, when to carry out the work and how best to reinstate the land when we've finished. Sometimes we may need to put up temporary masts to keep the power flowing while we replace equipment.

The pictures below show some examples of how we refurbish towers and replace conductors, insulators and other essential components and equipment.