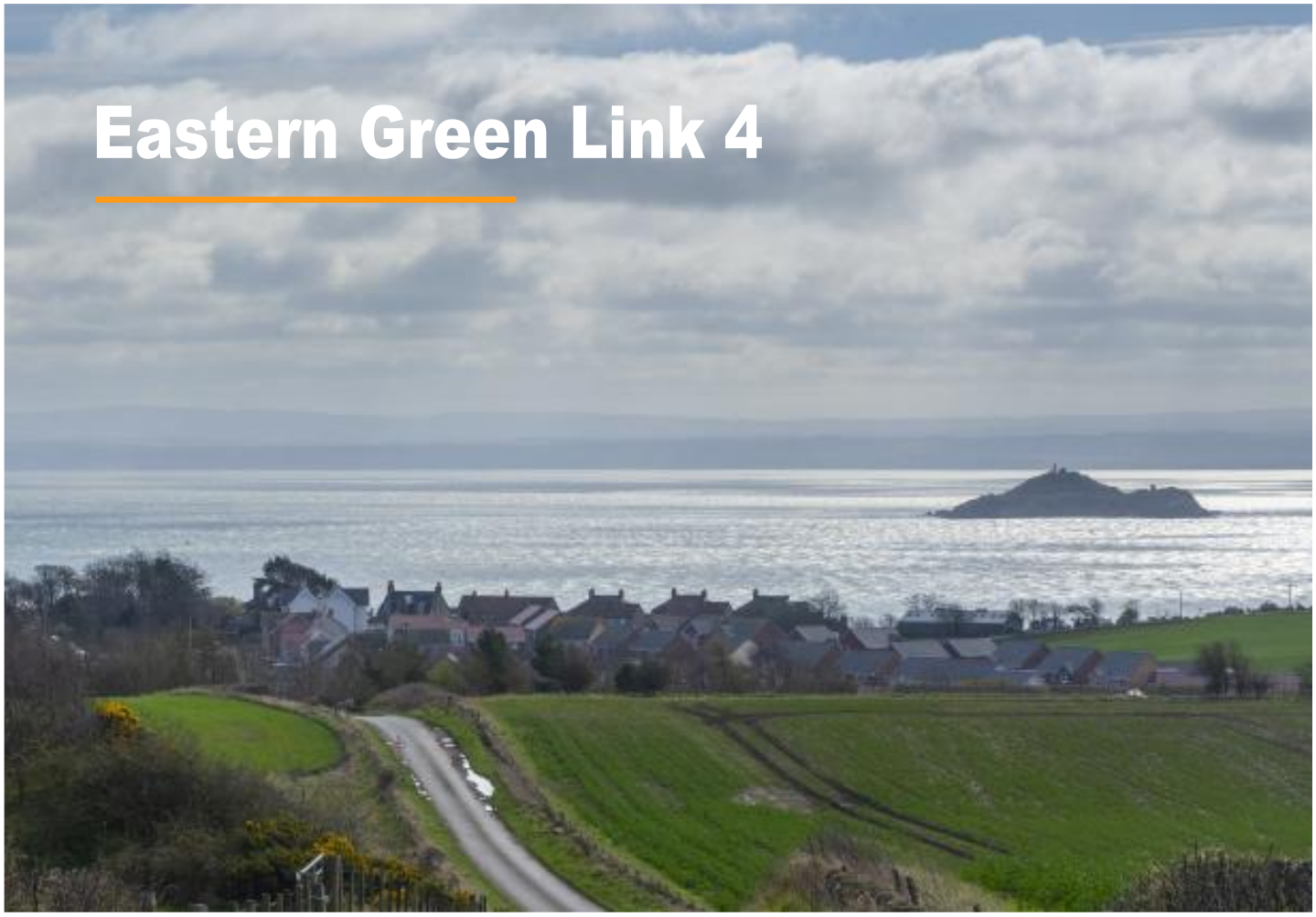
SP Energy Networks



Proposed new High Voltage Direct Current (HVDC) subsea electrical link that will connect Fife in Scotland with Norfolk in England.

Summary of feedback from first round of Pre-Application Consultation (PAC) 2024

May 2025

Contents

Executive Summary

This report summarises the first round of pre-application consultation carried out by SP Energy Networks for the northern elements of the proposed Eastern Green Link 4 (EGL4) project in 2024.

EGL4 is a new High Voltage Direct Current (HVDC) subsea electrical link that will connect Fife in Scotland with Norfolk in England. It is being developed in partnership between SP Energy Networks and National Grid Electricity Transmission, and is made up of three parts:

- A 500km subsea HVDC cable between Kinghorn, Fife, and South Humber, Lincolnshire (the marine scheme);
- A 14km underground cable from the landfall at Kinghorn to a new converter station at Westfield, near Ballingry, Fife, where EGL4 will connect to the existing electricity transmission network via Westfield substation (the Scottish onshore scheme); and
- A 100km underground cable from South Humber to a new converter station near Walpole, Norfolk (the English onshore scheme).

SP Energy Networks held a pre-application consultation focused on the Scottish onshore scheme with local residents and stakeholders in Fife from Monday 8 April to Friday 10 May 2024, which included three drop-in public exhibitions on Tuesday 23, Wednesday 24 and Thursday 25 April 2024. Leaflets were sent to over 4,000 residents, businesses and local interest groups prior to the events. Consultation materials were also available on the SP Energy Network's website for those unable to attend the events.

The feedback received has helped to shape the design of the project. Revised designs were shared with the public during the second round of pre-application consultation, which took place in May 2025.

This report will provide:

- An overview of the project and the consultation process
- A summary of the feedback received during the consultation period
- The methodology used to analyse the feedback received
- Next steps in the process

1. Introduction

1.1. The need for the Eastern Green Link 4 (EGL4) project

The UK and Scottish Governments are committed to increasing the use of renewable energy and have targets to achieve net zero greenhouse gas emissions by 2045 in Scotland and 2050 in the UK. As the country shifts away from traditional forms of fuel to heat homes, charge vehicles and power businesses, there is greater need for clean electricity.

The UK Government has also set ambitious targets foroffshore wind aiming to have 50GW offshore wind connections target by the early 2030s. Much of the new onshore and offshore wind generation is in or around Scotland, and the existing electricity network does not have enough capacity to transmit all the additional clean, green energy from where it's produced to where it's needed.

EGL4 is one of many new transmission upgrades that are planned in the UK to help reach these targets. The need for these projects has been identified through the Network Options Assessment (NOA), which is carried out every year by National Electricity Systems Operator (NESO) to determine what, if any, additional 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.

1.2. The role of SP Energy Networks

SP Energy Networks is part of the Scottish Power Group. It is responsible for the transmission and distribution of electricity in central and southern Scotland, and, through SP Manweb; the distribution network in North Wales and part of Northwest England. SP Energy Network's role is to maintain, operate and invest in our network to secure a safe, reliable, and economic service for current and future consumers, including homes, schools and businesses in our local communities.

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. SP Energy Network's transmission network in Scotland consists of over 150 substations, more than 4,500km of overhead lines and more than 600km of underground cables.

1.3. The proposals

EGL4 is one of four Eastern Green Link HVDC projects that will significantly increase the capacity of the electricity network between Scotland and England. Western Link, a similar HVDC project linking Hunterston on the west coast of Scotland with Connah's Quay in North Wales, is already in operation. EGL1 and EGL2 have already been consented and are moving towards construction, and EGL3 and EGL4 (this project) are in the development and assessment stage.

EGL4 is a major investment proposal by SP Energy Networks in partnership with National Grid Electricity Transmission, and is made up of three parts:

- A 500km subsea High Voltage Direct Current (HVDC) cable between Kinghorn, Fife, and South Humber, Lincolnshire
- A 14km underground cable from Kinghorn to a new converter station at Westfield, near Ballingry, Fife
- A 100km underground cable from South Humber to a new converter station near Walpole, Norfolk.

HVDC is the most efficient way to transmit large amounts of electricity over long distances. Converter stations are needed at each end to change the DC (direct current) electricity to and from AC (alternating current) electricity, so it's safe to use in our homes and businesses.

Once operational, EGL4 will be able to transmit up to 2GW of clean, green, renewable energy, enough to power around 1.5 million homes.

2. Approach to Pre-Application Consultation

2.1. Legislation and guidance

SP Energy Networks will be applying to Fife Council for planning permission in principle (PiP) under the Town and Country Planning (Scotland) Act 1997 for the proposed converter station, and full planning permission for the DC underground cable from the Mean Low Water Springs (MLWS) at the landfall site to the converter station and for the AC underground cable from the converter station to Westfield Substation.

SP Energy Networks will carry out an Environmental Impact Assessment, which will accompany the planning applications.

The marine cable within Scottish territorial waters will be subject to a separate application to the Scottish Government's Marine Directorate – Licensing Operations Team (MD-LOT) and will be supported by a marine environmental appraisal.

2.2. SP Energy Network's statutory and licence responsibilities

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

SP Energy Networks 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. SP Energy Networks considers the effect of work on communities when putting forward proposals for new transmission development.

As a result of the above, SP Energy Networks 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. SP Energy Network'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 considered throughout the planning process.

Striking the right balance can be challenging, and in seeking to achieve this, SP Energy Networks recognises the importance of consulting effectively on proposals and being transparent about the decisions reached. SP Energy Networks 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. Approach to consultation

The strategy for consultation on EGL4 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; and
- Could put forward their own views and be confident that issues raised would be considered.

3. Pre-Application Consultation

3.1. Consultation Strategy

SP Energy Networks 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 the EGL4 project have access to up-to-date information and are provided with clear and easy ways in which to shape and inform SP Energy Network'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, SP Energy Networks will be holding two rounds of consultation events for the public, stakeholders and consultees to view the proposals and provide feedback. The first round took place in April 2024 and the second round took place in May 2025. A further report will be published covering the second round of consultation.

For the first round of consultation, SP Energy Networks sought feedback on the following:

- Views on the preferred landfall site;
- Views on the preferred converter station site;
- Views on the onshore and offshore cable routes (presented as cable corridors to be refined); and
- Any wider comments that consultees might have.

SP Energy Networks used a range of communication channels to publicise and promote the consultations, which are detailed in the following sections of this document. Respondents were also able to give feedback in different formats, depending on their own preference:

- Email: egl4@communityrelations.co.uk
- Freepost: FREEPOST SPEN EGL4
- Freephone: 0800 021 7890
- Online via the dedicated project website: egl4@communityrelations.co.uk
- Face-to-face or in writing at public consultation exhibitions

3.2. How we consulted

SP Energy Networks wished to consult with relevant stakeholders and gain their views on the proposals. These stakeholder groups included:

- Elected members of Fife Council, Members of Parliament (MP) and Members of the Scottish Parliament (MSPs) whose constituencies are within the Fife Council area;
- Community councils in the project area;
- National statutory consultees such as NatureScot and SEPA;
- Known local interest and community groups operating in the project area; and

- Local residents, businesses and the general public.

The consultation period ran from Monday 8 April 2024 until Friday 10 May 2024. SP Energy Networks held three public drop-in exhibitions for the consultation:

- **Tuesday 23 April, 2-7pm**: Benarty Centre, Flockhouse Avenue, Ballingry, KY5 8JH
- **Wednesday 24 April, 9am – 12:30pm**: Auchtertool Village Hall, Main Street, Auchtertool, KY2 5XW
- **Thursday 25 April, 3:30pm – 7:30pm**: Kinghorn Community Centre, Rossland Place, Kinghorn, KY3 9SS

The event venues, dates and times were included in all issued project communications. A total of 180 people visited the three events (35 people attended the Ballingry event, 23 attended Auchtertool, and 122 attended Kinghorn).

The events provided stakeholders with the opportunity to learn more about the project, discuss the proposals with the project team, and provide feedback to SP Energy Networks on the initial early stage (scoping) design. Project team members were available at the events to discuss the proposals and answer any questions.

Prior to the start of the consultation, a notification was sent via email or letter to the stakeholders listed above advising them of the consultation, inviting them to the events and seeking their views on the proposals.

A project leaflet explaining the proposals, the purpose of the consultation and the process for submitting feedback was produced and distributed to approximately 4,100 properties (residential and business) within a defined radius of the project site, including the communities of Ballingry, Kinghorn and Auchtertool. This was the principal form of direct communication with the local community. A copy of the leaflet can be found in Appendix A.

To promote the consultation, SP Energy Networks placed formal newspaper advertisements in the *Fife Free Press* and *Glenrothes Gazette* newspapers for two consecutive weeks (w/c 8 April 2024 and w/c 15 April 2024). 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 could 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 B.

A feedback form was made available in hard copy and online. It included seven questions in relation to the project proposals and an additional section that asked demographic data including title, name, address, telephone number, email address, if the respondent is responding on behalf of an organisation and if they attended any of the public exhibitions.

The seven project related questions were:

1) Do you have any comments on our preferred site for the converter station?
2) We have identified a swathe of land within which we could install underground cables between Westfield and Kinghorn. We would particularly like to hear your views on your local area e.g. areas you use for recreation, local environmental features you would like us to consider, and any plans you may have to build anything along the route.
3) Please let us have any comments you may have about our preferred landfall site or the alternatives we considered.

4) Please let us know if you have any comments you would like us to take into account on our preferred marine cable route.
5) How did you find out about the project and the consultation? *Multiple choice options provided were: advert, leaflet, website, media coverage, social media, word of mouth, other.*
6) Do you have any comments about our public consultation?
7) Are there any other comments you would like to make?

The closing date for submitting responses to SP Energy Networks was midnight on Thursday 9 May 2024. Following this date, the consultation information remained accessible on the project website and available to download.

At the public events, a range of information was made available including printed maps to give a visual interpretation of what the site could look like, which were displayed on tables at the venues. There were also 10 exhibition boards displayed across the room which provided detail on each aspect of the proposals. A copy of the boards can be found in Appendix C.

A 3D model of the landfall, cable corridor and converter station site was also available. Visitors were able to interact with the model and zoom in to different locations to view the project from different angles. Animation of the landfall HDD and cable installation were also available to watch.

The project leaflet, newspaper notice, project plans, FAQs, general information about the project and the consultation, the exhibition boards, and the feedback form were made available on a dedicated project website:

https://www.spenergynetworks.co.uk/pages/eastern_green_link_4.aspx.

To make the website as accessible as possible, the materials created for the consultation included a QR code that linked through to the home page. The website remained live following the consultation to ensure stakeholders can find out more and stay up to date on project developments.

3.3. Summary of feedback

Stakeholders could submit feedback in various methods as outlined in Section 2.4. All feedback received as part of the consultation was analysed by members of the project team.

Respondents were made aware via a data protection statement that any comments they provide 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. SP Energy Networks will continue to review comments in the context of the development of the project at each stage.

A total of 54 feedback forms were submitted during the consultation period via hard copy forms sent to the FREEPOST address, online via the feedback form, and email to the project inbox, providing comments on a variety of topics, including impact on wildlife, the cable route and benefits for the local community.

Feedback was also received from statutory stakeholders and local interest groups, whom the project team engaged with directly.

The hardcopy documents received through the FREEPOST address were collected, scanned and securely saved on the project's SharePoint. The full responses were then manually transcribed into the analysis database and checked for accuracy.

Emails received in the project mailbox which were categorised as consultation feedback were separated from the general correspondence. Email feedback was securely saved on the project's SharePoint, manually transcribed into the analysis database and checked for accuracy. Each email was sent a standard acknowledgement in the form of an automated response.

Once all responses were included in the analysis database, they were given a unique identification number.

Where provided by the respondent, contact details were recorded and added to the communication database so respondents could receive project updates.

3.4. Topics raised during the consultation

The consultation feedback submitted to SP Energy Networks has been considered by the project team as part of the design development, in addition to feedback from key statutory and non-statutory consultees and the findings from the detailed technical and environmental studies that have been undertaken.

SP Energy Networks received consultation response from the following statutory consultees:

- Fife Council – Fife Council provided two detailed pre-application advice responses which provide information on the converter station and on the cable corridor. The pre-application advice responses include information on planning history and assess a number of issues against the Development Plan. These issues include;
    - Principle of Development
    - Contribution to Renewable Energy Supply
    - Community and Economic Benefits
    - Natural Heritage including impact on Trees, Protected Species, Wildlife Habitats and Protected Sites such as SSSI, Wildlife Sites, Ramsar Sites and Special Protection Areas
    - Amenity Impact
    - Transportation/Road Safety
    - Impact on railway line
    - Built Heritage/Visual Impact on Character of Listed Buildings and Conservation Areas – Archaeology
    - Core Paths
    - Archaeology
    - Visual Impact
- Historic Environment Scotland – identified Raith Park and Beveridge Park Inventory Garden and Designed Landscape and one scheduled monument adjacent to the cable corridor, highlighted the need for a Zones of Theoretical Visibility (ZTV) for the converter station to be produced and identified the proximity of two listed buildings and one scheduled monument to the converter station.
- NatureScot – confirmed the proximity of designated sites to the proposals including the Outer Firth of Forth and St Andrews Bay Complex Special Protection Area (SPA),

the Firth of Forth Site of Special Scientific Interest (SSSI), Loch Leven SPA, Camilla Loch SSSI, Holl Meadows SSSI and Carriston Reservoir SSSI, provided comments on whether there is the potential for likely significant effects on each of these sites and highlights the need to consider coastal vulnerability in detailed design work.

- SEPA – confirmed receipt of the consultation material and that they would provide a response to Fife Council when consulted at the EIA Scoping stage.
- Scottish Water – provided a list of precautions to protect Scottish Water assets during development activities
- Scottish Forestry – confirmed that the cable route is likely to minimise any impact on forestry interests. Highlighted that National Planning Framework 4 specifies that woodland removal should be avoided wherever possible and if removal is required, compensatory planting is required.

Table 1 (see 3.5 below) summarises the key themes that arose during the first round of pre-application consultation as well as SP Energy Network's response to these themes.

3.5. SP **Energy** Network's 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

Key theme	Example comments	SP Energy Network's response
Preferred cable routes	"May I suggest that the Routeing Corridor is reduced in with and that the cables laid as far to the eastern edge of the corridor as possible." "Routeing the cables as far east, within the designated corridor at Newbigging, would not only minimise disruption for residents, but would also shorten the route, thereby saving you costs." "The proposed route should be within the area already identified for this consultation and not be situated further to the west, where it would conflict with FLS [*Forestry and Land Scotland*] land." "Ideally the route should be situated outwith FLS [*Forestry and Land Scotland*] land to the west of the search area/corridor (i.e. between the new planting and the Lochgelly Raceway)." "The western side of the corridor does come close to the edge of Kinghorn, so whilst the underground cable does minimise some of the EMF that overhead power lines would produce, the cable should still be routed well away from Kinghorn itself and the other houses and settlements along the route." "The area is already a popular walking area - close to the Fife Pilgrim way - therefore the screening and land //reclamation// is very important." "The rail link into the Westfield site is not operational at this time, and could have been used as the route for the cable. This would have allowed the cable to come ashore at Buckhaven and reduced the impact on the coastal path."	Based on the preferred route corridor, between landfall at Kinghorn and the converter station at Westfield (as presented at the April 2024 consultation), the design team have developed and assessed multiple cable route alignments to determine an end-to-end preferred cable route within the broad cable corridor. The preferred cable route alignment, presented at the consultation events in May 2025, includes the cable trench, haul roads, trenchless crossings, topsoil and subsoil storage bunds and drainage, as well as locations for construction compounds and access routes for construction vehicles. Each of the designed options were considered against engineering, environmental and economic criteria as part of a balanced assessment and took cognisance of all feedback received to date. To support the design development and assessment various surveys (both intrusive and non-intrusive) have taken place in the form of ground investigation (boreholes, trial pits etc) and ecology/environmental surveys. This work is carried out to determine the 'red line boundary' which encapsulates the proposed scheme and provides a defined area for Environmental Impact Assessment (EIA) and planning purposes.

Key theme	Example comments	SP Energy Network's response
		Newbigging The area to the east of Newbigging, between Tiel Burn and the B925 is heavily constrained due to challenging topography and high-risk geology associated with the site of a historical quarry. Options to the east of the scoping boundary were considered but ruled out due to the challenging topography, mature trees, and suspected large area of made ground. **A92** The crossing of the A92 was identified as a significantly constrained area of the cable route corridor with large zones of historical coal mining, including a mine entry located south of the road and the presence of shallow bedrock and made ground. Additionally, there is a large elevation difference either side of the A92. There is an existing underpass to the west of the cable route corridor that provides vehicular access, below the A92, to the woodland plantation to the north which was considered as a potential crossing point. However, after reviewing as-built records for the underpass it was not considered a viable option as a buried cable would likely compromise the structures integrity whilst surface mounted options could present a security risk for the cable. A separate location approximately 120m to the east of the underpass was taken forward as the preferred option with the proposed cable route moving west to the western extent of the cable route immediately north of the A92. Further design development work has meant that the construction work adjacent to Kinghorn can be moved east as far away as engineering allows, away from the residential properties.

Key theme	Example comments	SP Energy Network's response
		The point related to screening the construction works at the landfall is noted and will be considered as part of the EIA. There will be no impact on the coastal path due to the cables being installed via trenchless technology such as horizontal directional drill (HDD). Buckhaven was considered as a potential landfall location but was ruled out on marine technical grounds as it was not possible to route the marine cables to this landfall. Further details can be found in the Consultation Document produced as part of the first round of consultation.
Landscape and visual impact	"The proximity of the proposed site to Auchtertool and the potential to cause considerable disruption to the local area, including increased traffic, noise and unsightly building works and storage areas." "We simply do not trust your reassurances that such a building [*converter station*] will be hidden away from eyes with trees and such." "This would appear to be a good use of land which has a long tradition of industrial use." "It would seem to be an appropriate site, close to the existing sub-station and witin [*sic*] a developing industrial area. No residential home close by and rural so screening will blend well with the existing landscape."	As part of the Environmental Impact Assessment (EIA) an assessment of potential landscape and visual impacts will be undertaken in accordance with Guidelines for Landscape and Visual Impact Assessment (3rd edition) (GLVIA3). This will identify potential impacts and relevant mitigation measures including the development of a landscape plan. It is acknowledged that the buildings proposed are large in scale and it will not be possible to fully screen from every location around the site.

Key theme	Example comments	SP Energy Network's response
Construction impact	"Access to Kirkcaldy and Kinghorn will be disrupted. This is important as there are no shops or services in Auchtertool and residents need to travel to the nearest towns. I was told this disruption would last for about 2 years!" "For the duration of this project local people will be impacted by increased traffic, long periods of noise, unsightly building work and restricted access to roads and pathways." "The area would be adveserly [*sic*] affected by the construction and future maintenance works required. Traffic is already congested, highlighted by any incidents." "I am worried about potentially heavy vehicles causing damage and mess to roads and pavements." "Could there be any impact from drilling/vibration on neighbouring properties?" "Noise disruption in kinghorn during works and access via Long Craig's Terrace isn't suitable." "This project will cause considerable disruption to the local area including increased traffic, noise and unsightly building works and storage areas."	To reduce the impact of the development on the local road network trenchless road crossings such as the use of HDDs are proposed. This allows the roads to remain open whilst the construction works are underway. The EIA process considers and proposes mitigation to not only the permanent impact of a development but also the temporary impact a development may have during construction. This includes a full assessment of noise and vibration and the impact of the scheme on communities and on the local and private road network. In line with the guidance set out on the Fife Council website, construction works taking place near residential properties will be limited to: • Monday to Friday – 08:00 to 18:00 • Saturday – 08:00 to 13:00 • Sunday and Public Holidays – No working Contractors will be bound to the above. Where there is a requirement to work longer hours, such as the landfall HDD, there will be prior agreement with the council to carry out those specific works. **Construction and Operational Traffic:** As part of the EIA, a traffic and transport assessment will be carried out to understand the impact of the required construction traffic on the existing local road network. This will also consider the cumulative impacts of any other developments in progress in proximity to the proposed scheme. Where necessary, the assessment will identify measures required to mitigate the impact of the

Key theme	Example comments	SP Energy Network's response
		proposed scheme including road safety measures and traffic management. Access to the Kinghorn landfall site is proposed to be taken directly from the A921. **Noise and vibration**: As part of the EIA, baseline noise monitoring is being undertaken and noise modelling is proposed to formally establish the operational noise characteristics of the proposed converter station and underground cable works. These details will form part of the supporting information for the planning application to be submitted to Fife Council. Where noise mitigation is required to address noise levels in excess of adopted standards, this will be implemented prior to commissioning of the development. Traffic and Transport impacts will also be considered in the EIA including a traffic management plan.

Key theme	Example comments	SP Energy Network's response
Environmental impact	"This will not increase biodiversity and will not be of benefit to the surrounding area." "The landfall site will obviously affect the popular Fife Coastal Footpath, so care should be taken to minimise disruption to sensitive areas." "This cable route without doubt will damage some very complicated and ancient countryside, underground tunnels, ancient monuments and ancient pathways will be forever lost." "Although the intention is to screen the large buildings with woodland planting etc, is there any other environmental risks involved such as radiation polution [*sic*] likely to be emanating from the site due to the conversion process?" "You will be aware of the need to avoid disturbance to all wildlife, including damage to the sea bed, and to noise and magnetic pollution which upsets sea mammals and fish." "Without carrying out a full Marine Environmental Survey there is no way of telling what damage will be done to marine flower and fauna."	With regard to the impact on wildlife and ecology, the proposal will be supported by an EIA which will fully consider impacts on ecology and the proposal will accord with the National Planning Policy 4 requirements to enhance biodiversity. SP Energy Networks will accord with Schedule 9 responsibilities as set out in the Electricity Act 1989 when balancing the development requirements against impacts on fauna. The EIA will include details of Biodiversity Net Gain proposals such as landscaping around the converter station, restoration of hedgerows along the cable route and potential areas for additional woodland planting in the vicinity of the converter station site. The proposed landfall location is situated in fields to the east of Kinghorn. The landfall will allow the marine cables to come onshore and run up to Westfield. There is no requirement for any permanent structures above ground at the landfall and the cables will go out to sea via a horizontal directional drill (HDD) under the cliffs. A temporary construction compound will be required during this work following which the land will be reinstated. There will be no interaction between the HDD and the coastal path and this will remain open and unaffected by the HDD. The proposed cable route, landfall and converter station all avoid sites designated for historical interest. No emissions apart from heat will be produced from the converter station.

Key theme	Example comments	SP Energy Network's response
		In addition to the onshore EIA, a detailed marine environmental appraisal is also underway and will support the Marine Licence application. The marine environmental appraisal includes details of the marine survey which has been undertaken for the full length of the marine cable. The survey includes benthic sampling, videos along the cable route and geophysical and geotechnical surveys.
Proximity to residential properties	"I feel this site is far to [*sic*] close to many new homes and the town in general, the implementation of such a converter station situated in this location poses substantial risk to the local community." "The proposal to build this converter station in an area of high deprivation, already suffering from the after effects of post industrialisation, and less inclined or able to organise or engage to protest this project is unethical in terms of a social justice approach." "The preferred landfall site is simply TOO CLOSE to the town of Kinghorn, literally right on our doorstep, where people swim, cycle, play, rest and relax." "Despite the rationale for a shorter distance between the converter station and Kinghorn, this is NOT enough to justify doing this project in an area that encroaches in the communities immediate surroundings."	The proposed converter location is to the east of an existing electricity substation (Westfield) and in a location which also includes an energy recovery facility and a now closed coal mine. Westfield was chosen as the site of the EGL4 converter station because it is a strong point on our existing transmission network which is closest to the Fife coast. The Westfield substation is currently a 275kV substation but will be replaced in the future with a 400kV substation. We need to have suitable network connectivity at the substation to provide the strongest support for the HVDC link. Westfield substation is the only substation in this area that provides this level of network connectivity and security, with four circuit infeeds to provide the resilience needed to keep electricity moving.

Key theme	Example comments	SP Energy Network's response
	"I am still very concerned and dismayed about the proximity of the proposed site to Auchtertool, in particular, Newbigging where I have lived for 25 years." "Slightly concerned regarding side effect of having a 600000 volt cable so close to my home."	Kinghorn was chosen as the landfall site following assessment of a number of potential options along the Fife coast, including Lower Largo, Largo Bay and Buckhaven. Bringing the cables ashore at Kinghorn allows a shorter onshore cable route to Westfield (around 14km from Kinghorn compared to around 29km from Largo Bay) and avoids centres of population, thereby minimising disturbance to local communities and the environment. The proposed landfall location is situated in fields to the northeast of Kinghorn. The landfall will allow the marine cables to come onshore and run up to Westfield. There is no requirement for any permanent structures above ground at the landfall and the cables will go out to sea via a horizontal directional drill under the cliffs. A temporary construction compound will be required during this work following which the land will be reinstated. The cable route between the landfall at Kinghorn and the converter station at Westfield has been developed to maximise distances to properties, where possible.

Key theme	Example comments	SP Energy Network's response
Community benefits	"There appear to be no benefits to the local residents. It would seem the only people who will benefit from this are local farmers, the Government, SP Energy and consumers in England. Therefore disruption to our local community should be avoided." "Seriously need to consider community benefit in relation to this project, e.g. coastal path upgrade and consideration for road upgrade between Kinghorn and Kirkcaldy as part of HDD traffic mitigation." "The whole community would prefer this to be abandoned. It is only of benefit to large power companies and of no benefit to the people of Fife." "Will be of no benefit to the people living in and around the affected areas (as I understand it the energy will be transferred to Norfolk where they can enjoy lower bills than we do here, despite us living closer to where the energy is generated.)"	As a regulated Business, SP Energy Networks must ensure that all projects are delivered to provide best value to UK bill payers. Energy policy in the UK is a reserved matter to UK Ministers and we have been working closely with both the UK Government, other regulated transmission owners and key stakeholders on the framework for delivering formal community benefit to those communities hosting electricity transmission schemes. Further guidance from UK Government has recently been published and we will continue to keep communities affected by this scheme updated on progress with this matter.

4. Next Steps

Following the first round of the pre application consultation, SP Energy Networks have developed a detailed design for the landfall point, converter station and cable route, including locations for access routes and working areas, taking into account the comments received from the public. A second round of consultation took place in May 2025 to share the updated proposals. A further report will be published covering the second round of consultation.

SP Energy Networks has developed a route alignment for the underground cables taking into consideration the comments raised during consultation. Sensitive locations have been identified by the community. In these instances, SP Energy Networks has considered the issues raised in the feedback along with relevant environmental, technical and engineering considerations. Further desk-based technical and environmental assessment and site visits were carried out to consider sensitive areas within the corridor and also potential routes for the underground cables. The final selection looked to balance each of the aforementioned issues and considerations that resulted in a proposed route alignment for the underground cables that is technically feasible, minimises potential impacts on the community and on the environment.

The proposed route alignment was the focus of the second round of consultation along with the converter station site design and the landfall construction. Once the second round of consultation is complete, SP Energy Networks will conclude an Environmental Impact Assessment (EIA). Following completion of the EIA, SP Energy Networks will prepare a detailed development and design proposal and submit planning applications to Fife Council. SP Energy Networks will be applying to Fife Council for planning permission in principle (PiP) under the Town and Country Planning (Scotland) Act 1997 for the proposed converter station, and full planning permission for the DC underground cable from Mean Low Water Springs (MLWS) at the landfall site to the converter station and for the AC underground cable from the converter station to Westfield Substation.

For the marine cables, our marine environmental consultants conduct a separate environmental appraisal which assesses the potential impact of the project on the marine environment, shipping and navigation, commercial fisheries and other marine users. The appraisal will accompany an application to the Scottish Government Marine Directorate Licensing Operations Team (MD-LOT) for a licence to install the marine cables.

The Council and MD-LOT will then invite representations from local communities and stakeholders before deciding whether to grant planning permission and the marine licence, and to inform any conditions that may be required under permission.

5. Appendices

5.1. Appendix A: Project Leaflet

SP Energy Networks

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. One of the ways we increase capacity is by building new infrastructure to transmit more electricity securely and reliably.

Eastern Green Link 4 (EGL4) is a new High Voltage Direct Current (HVDC) electrical link that will connect Fife in Scotland with Norfolk in England.

The EGL4 project will play a key role in the fight against climate change, and the UK's transition to Net Zero. It is one of many new transmission upgrades that are planned across the UK.

We want to hear your views!

Our public consultation runs until Friday 10 May 2024.

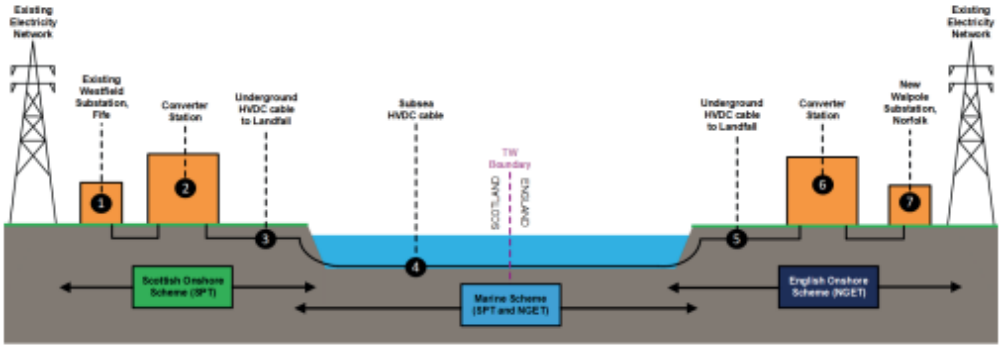
This leaflet tells you about our proposals, where to find more information, and how you can give us your views.

What is EGL4?

EGL4 is a major investment developed in partnership between SP Energy Networks and National Grid Electricity Transmission, and is made up of three parts:

- A 500km subsea High Voltage Direct Current (HVDC) cable between Kinghorn, Fife, and South Humber, Lincolnshire
- A 14km underground cable from Kinghorn to a new converter station at Westfield, near Ballingry, Fife
- A 100km underground cable from South Humber to a new converter station near Walpole, Norfolk

HVDC is the most efficient way to transmit large amounts of electricity over long distances. Converter stations are needed at each end to change the DC (direct current) electricity to and from AC (alternating current) electricity, so it's safe to use in our homes and businesses.



Why is Eastern Green Link 4 needed?

The UK and Scottish 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.

As the country shifts away from traditional forms of fuel to heat homes, charge vehicles and power businesses, there is greater need for clean electricity. By the end of this decade, the UK Government also aims for every home in the country to be powered by offshore wind and has set a 50GW offshore wind connections target by the early 2030s.

Much of the new offshore and onshore wind is in or around Scotland, and the existing electricity network does not have enough capacity to transmit all the additional clean, green energy from where it's produced to where it's needed.

EGL4 will be able to transmit up to 2GW of clean, green renewable energy – enough to power around 1.5 million homes. It is one of four Eastern Green Link HVDC projects that will significantly increase the capacity of the electricity network between Scotland and England.

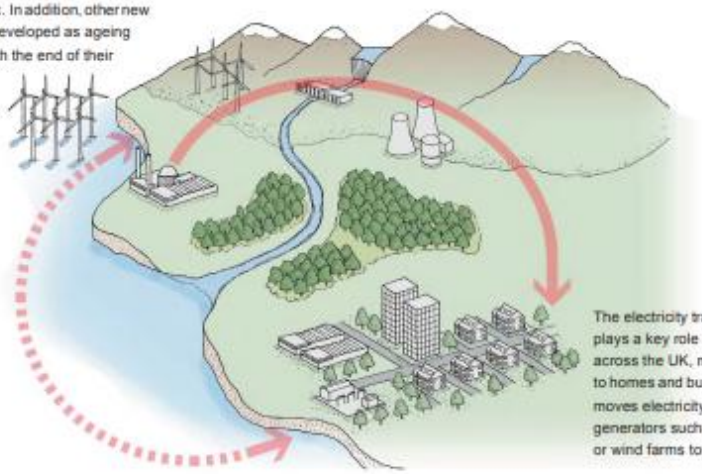
Western Link, a similar HVDC project linking Hunterston on the west coast of Scotland with Connahs Quay in North Wales, is already in operation. EGL1 and EGL2 have already been consented and are moving towards construction, and EGL3 and EGL4 (this project) are in the development and assessment stage.

SP Energy Networks

HVDC: how it works

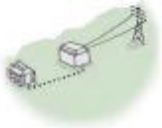
Over the next decade predicted renewable and non-renewable electricity generation will place a considerable pressure on the network and how electricity is delivered to homes and businesses.

Over the coming decade renewable energy will continue to make a major contribution to the UK energy mix. In addition, other new generation will be developed as ageing power stations reach the end of their operational lives.



The electricity transmission network plays a key role in transmitting electricity across the UK, moving it from generators to homes and businesses. The network moves electricity at high voltages from generators such as power stations or wind farms to towns and cities.

Subsea HVDC technology has a number of advantages when transmitting electricity in large volumes – it is particularly effective at the long distance transmission of large volumes of electricity.



AC electricity can have its voltage increased or decreased using transformers, making it safe to use in our homes, businesses, schools and hospitals.

But to transmit electricity over long distances it is more efficient to use HVDC, which operates at a fixed voltage, requires fewer conductors (cables or wires) and incurs less power loss than AC networks.

AC electricity is converted into HVDC electricity using specialised equipment at a converter station. The HVDC electricity can then be transmitted over long distances – hundreds of kilometres – via underground and subsea cables to a second converter station, where it is converted back to AC to flow in to the local electricity network.

By doing this, projects like EGL4 can remove 'bottlenecks' on the existing transmission network while reducing the need for more onshore power lines and associated infrastructure.

Marine cable route

Our preferred route for the subsea cables has been developed through careful environmental and technical assessment of potential route options, in consultation with Scottish shipping and fisheries organisations and environmental bodies. It takes into account protected and designated areas and infrastructure such as pipelines, cables, wrecks and military considerations. You can find detailed information and maps on our website and at our consultation events.

SP Energy Networks

Public consultation

Our public consultation runs until Friday 10 May 2024

SP Energy Networks 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 proposed landfall and converter station sites, and onshore and offshore cable routes, to help us develop the project in the best way. Please come along to one of our public exhibitions, where you can see our plans in more detail and ask questions of the project team.

Date	Location
Tuesday 23 April 2pm – 7pm	Benarty Centre, Flockhouse Avenue, Ballingry KY5 8JH
Wednesday 24 April 9.00am – 12.30pm	Auchtertool Village Hall, Main Street, Auchtertool KY2 5XW
Thursday 25 April 3.30pm – 7.30pm	Kinghorn Community Centre, Rossland Place, Kinghorn KY3 9SS

Project documents are available on our website, where you can also fill in an online feedback form. 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.

How to contact us

Website: **https://www.spenergynetworks.co.uk/pages/eastern_green_link_4.aspx**
Email: **egl4@communityrelations.co.uk**
Freephone: **0800 021 7890**
Freepost: **FREEPOST SPEN EGL4**

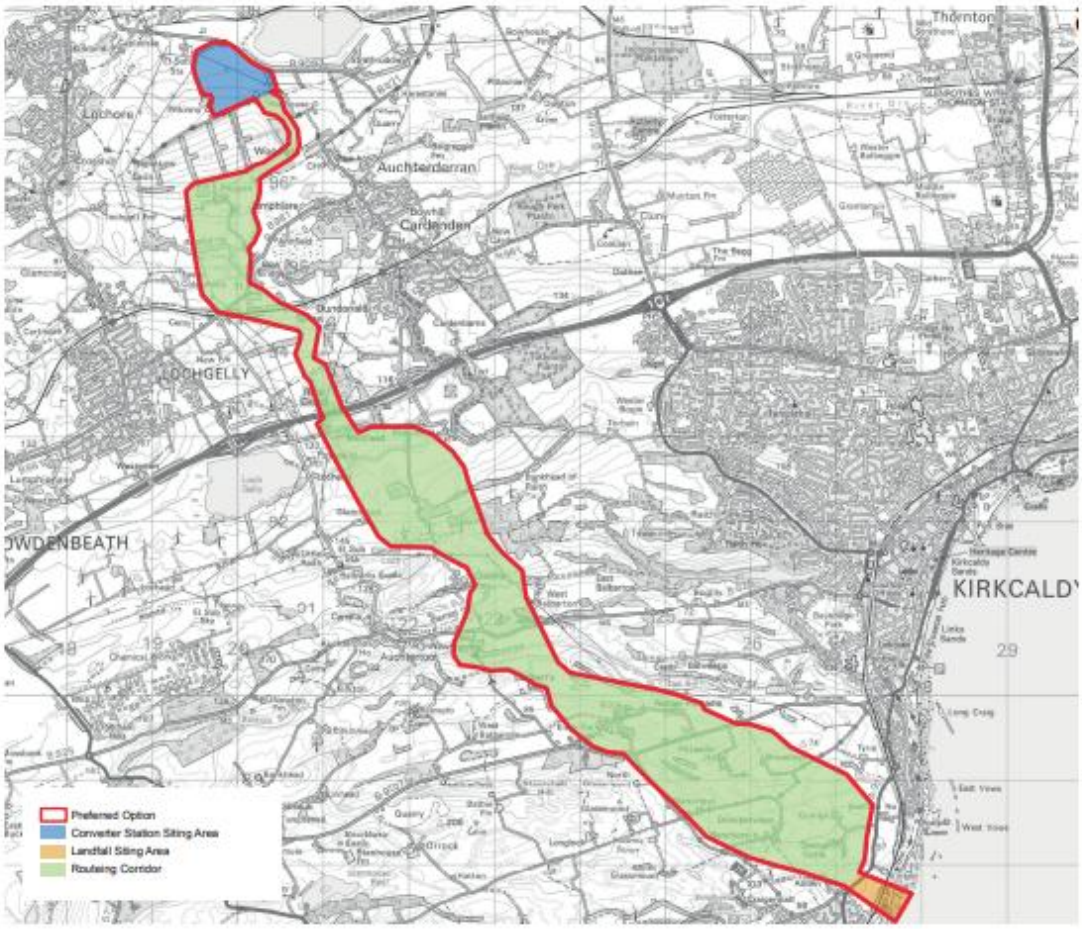
What happens next?

Following this first round of consultation we will develop a detailed design for the landfall, converter station and cable route, including locations for access routes and working areas. We will publish a report summarising the feedback received in this first round of consultation and how this has influenced our plans. We will then carry out a detailed Environmental Impact Assessment (EIA) and hold a second round of public consultation on the detailed designs.

SP Energy Networks will be applying to Fife Council for planning permission in principle (PiP) under the Town and Country Planning (Scotland) Act 1997 for the proposed converter station, and full planning permission for the DC underground cable from the Mean Low Water Springs (MLWS) at the landfall site to the converter station and for the AC underground cable from the converter station to Westfield Substation. The EIA Report will accompany the planning application to Fife Council.

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.

SP Energy Networks



Onshore work in Fife – what's required?

Converter station

We need to build a new converter station close to the existing substation at Westfield, so that AC electricity from the transmission network can be converted to HVDC for safe onward transmission via the underground and subsea cables.

The converter station will be made up of large warehouse-type buildings and outside electrical equipment. The total converter station footprint will be approximately 350m x 350m in size with buildings up to 28.5m in height, to accommodate the equipment needed. We will also need temporary construction and parking areas, and underground cables to connect the converter station to the existing substation. Our plans will include landscaping and tree planting to help screen the site, reduce its visual effects and increase biodiversity.

Existing converter station at Blyth, Northumberland

Landfall

We are proposing to bring the subsea cables ashore at Kinghorn, south of Kirkcaldy, where they will be joined to underground cables in a buried pit. Once installation is complete, the ground will be reinstated and no permanent above-ground infrastructure will be visible.

We selected Kinghorn as the landfall site after careful appraisal of a number of potential options along the Fife coast, including at Largo Bay and Buckhaven. Bringing the cables ashore at Kinghorn allows a shorter onshore cable route to Westfield (around 14km from Kinghorn compared to around 29km from Largo Bay) and avoids centres of population, thereby minimising disturbance to local communities.

The subsea cables will be installed at the landfall site below ground using Horizontal Directional Drilling (HDD) to minimise any impact on the sensitive coastal environment and protected sites, and avoiding disturbance to the seal haul-out area to the north.

Onshore cable route

Our preferred route for the underground cables between the converter station at Westfield and the landfall point at Kinghorn is approximately 14km in length, running mainly through rural areas to the south of the A92, and on the margins of scattered settlements to the north of the A92.

The preferred route avoids designated areas including Camilla Loch SSSI, Raith Park and Beveridge Park Garden. It will cross under the A92, the Fife Circle Railway Line and watercourses using trenchless technology (such as HDD). This technology may also be used to pass safely under other features such as large areas of woodland if we cannot route around them.

We recognise that construction work can cause temporary inconvenience and disturbance, but we believe our preferred route will keep this to a minimum. Once the cables are installed the land will be reinstated and there will be no visible above-ground infrastructure.

Underground cable installation during construction

5.2. Appendix B: Newspaper advert

Eastern Green Link 4 Project

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. One of the ways we increase capacity is by building new infrastructure to transmit more electricity securely and reliably.

Eastern Green Link 4 (EGL4) is a new High Voltage Direct Current (HVDC) subsea electrical link that will connect Fife in Scotland with Norfolk in England. The EGL4 project will play a key role in the fight against climate change, and the UK's transition to Net Zero.

We have identified a preferred route for the onshore cables between a landfall point on the coast near Kinghorn and Westfield, near Ballingry, where we need to build a new converter station close to the existing substation.

We are holding three public exhibitions where you can view our plans and talk to the project team. You can also find more information on our website https://www.spenergynetworks.co.uk/pages/eastern_green_link_4.aspx

You can leave comments on the website, and you can also contact us in the following ways:

Phone: 0800 021 7890
Email: egl4@communityrelations.co.uk
Post: FREEPOST SPEN EGL4

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.

Public exhibitions

Date	Location
Tuesday 23 April 2.00pm – 7.00pm	Benarty Centre, Flockhouse Avenue, **Ballingry** KY5 8JH
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Thursday 25 April 3.30pm - 7.30pm	Kinghorn Community Centre, Rossland Place, **Kinghorn** KY3 9SS

Our public consultation runs until Friday 10 May 2024.

5.3. Appendix C: Exhibition banners

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 this happens belongs to SP Energy Networks. In fact we have a statutory duty to do it.

SP Energy Networks operates, maintains and develops the network of cables, overhead lines and substations which transport electricity to homes, schools and businesses in our local communities, and onwards to where it's needed further afield.

The high-voltage electricity transmission network, is managed by SP Transmission plc, a wholly-owned subsidiary of SP Energy Networks.

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 our local distribution networks, where the voltage is reduced for use in homes and businesses.

Electricity in our changing world

SP Energy Networks

The UK and Scottish 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.

As the country shifts away from traditional forms of fuel to heat homes, charge vehicles and power businesses, there is greater need for clean electricity.

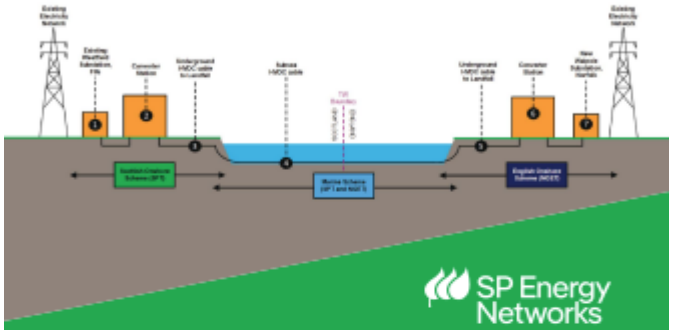
By the end of this decade, the UK Government also aims for every home in the country to be powered by offshore wind and has set a 50GW offshore wind connections target by the early 2030s.

Much of the new offshore and onshore wind is in or around Scotland, and the existing electricity network does not have enough capacity to transmit all the additional clean, green energy from where it's produced to where it's needed.

Eastern Green Link 4 (EGL4) is being developed in partnership between SP Energy Networks and National Grid Electricity Transmission and is one of four similar projects that will significantly increase the capacity of the electricity network between Scotland and England. EGL1 and EGL2 have already been consented and are moving towards construction, and EGL3 and EGL4 (this project) are in the development and assessment stage.

Western Link, a similar project linking Hunterston on the west coast of Scotland with Connahs Quay in North Wales, is already in operation.

Eastern Green Link 4 (EGL4): what's involved



SP Energy Networks

EGL4 is a new High Voltage Direct Current (HVDC) electrical link that will connect Fife in Scotland with Norfolk in England. It will be able to transmit up to 2GW of clean, green renewable energy – enough to power around 1.5 million homes.

EGL4 is made up of three parts:

- A 500km subsea HVDC cable between Kinghorn, Fife, and South Humber, Lincolnshire
- A 14km underground cable from Kinghorn to a new converter station at Westfield, near Ballingry, Fife
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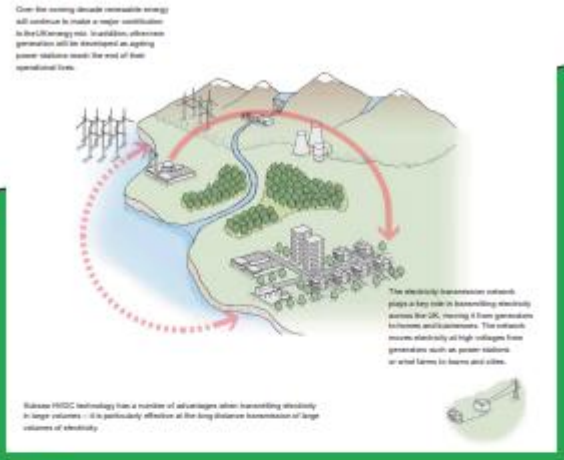
What is HVDC and why do we use it?



In everyday life we use Alternating Current (AC) electricity, which can have its voltage increased or decreased using transformers, making it safe to use in our homes, schools, businesses, and hospitals.

But to transmit large volumes of electricity over long distances it is more efficient to use High Voltage Direct Current (HVDC), which operates at a fixed voltage, requires fewer conductors (cables or wires) and incurs less power loss than AC networks.

AC electricity is converted into HVDC electricity using specialised equipment at a converter station. The HVDC electricity can then be transmitted over long distances – hundreds of kilometres – via underground and subsea cables to a second converter station, where it is converted back to AC to flow into the local electricity network.

By doing this, projects like EGL4 can remove 'bottlenecks' on the existing transmission network while reducing the need for more onshore overhead or underground power lines and associated infrastructure.

Westfield converter station

Existing converter station at Blyth, Northumberland

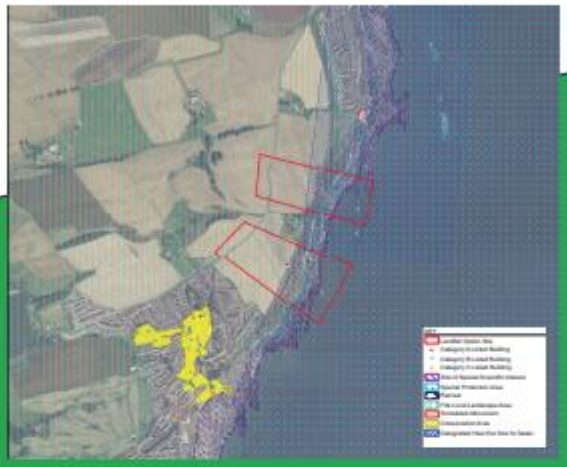
Computer visualisation of proposed Westfield converter station

Converter stations are needed at each end of an HVDC link to change the DC electricity to and from AC electricity, so it's safe to use in our homes and businesses.

The converter station will be made up of large warehouse-type buildings and outside electrical equipment. The total converter station footprint will be approximately 250m x 350m in size with buildings up to 28.5m in height, to accommodate the equipment needed. We will also need temporary construction and parking areas, and underground cables to connect the converter station to the existing substation. Our plans will include landscaping and tree-planting to help screen the site, reduce its visual effects and increase biodiversity.

Westfield is the starting point for EGL4 because it is a strong point on our existing transmission network which is closest to the Fife coast. The Westfield substation is currently a 275kV substation but will be rebuilt in the future as a 400kV substation. We need to have suitable network connectivity at the substation to provide the strongest support for the HVDC link. Westfield substation is the only substation in this area that provides this level of network connectivity and security, with four circuit infeeds to provide the resilience needed to keep the electricity moving.

Kinghorn landfall point



We are proposing to bring the subsea cables ashore at Kinghorn, south of Kirkcaldy, where they will be joined to underground cables in a buried pit. Once installation is complete, the ground will be reinstated and no permanent above-ground infrastructure will be visible.

We selected Kinghorn as the landfall site after careful appraisal of a number of potential options along the Fife coast, including at Largo Bay and Buckhaven. Bringing the cables ashore at Kinghorn allows a shorter onshore cable route to Westfield (around 14km from Kinghorn compared to around 29km from Largo Bay) and avoids centres of population, thereby minimising disturbance to local communities and the environment.

The subsea cables will be installed at the landfall site below ground using Horizontal Directional Drilling (HDD). This is a trenchless technology that reduces excavation to minimise any impact on the sensitive coastal environment and protected sites, and avoiding disturbance to the seal haul-out area to the north.

Example of an HDD site for a cable landfall point

Underground cable route

We have identified a swathe of land between the converter station site at Westfield and the landfall point at Kinghorn within which underground cables could be installed.

We will need a 'working width' of approximately 40 metres within this swathe, and we are consulting local people on where within the swathe this should go to help shape our ongoing design and assessment.

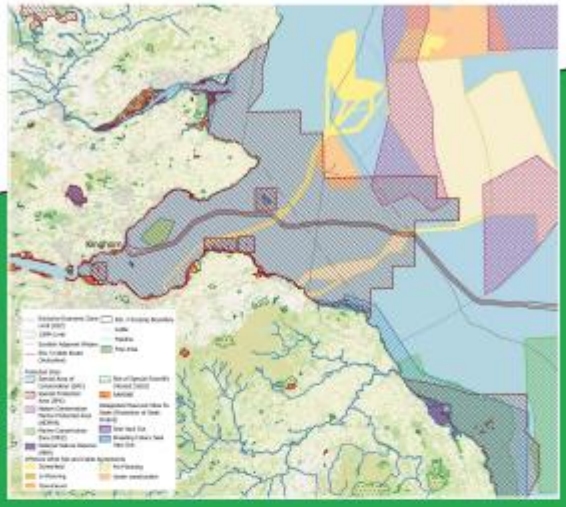
Our preferred route is approximately 14km in length, running mainly through rural areas to the south of the A92, and on the margins of scattered settlements to the north of the A92.

The preferred route avoids designated areas including Camilla Loch SSSI, Raith Park and Beveridge Park Garden. It will cross under the A92, the Fife Circle Railway Line and watercourses using trenchless technology (such as HDD). This trenchless technology may also be used to pass safely under other features such as large areas of woodland if we cannot route around them.

Cross-section of typical working width for HVDC cable installation

HVDC cable installation

Marine cable route



Our preferred route for the subsea cables has been developed through careful environmental and technical assessment of potential route options, in consultation with Scottish shipping and fisheries organisations and environmental bodies.

It takes into account protected and designated areas and infrastructure such as pipelines, cables, wrecks and military considerations.

The marine cables will be installed by special cable-laying vessels (pictured below). They will be buried in the sea bed or covered by rock armour throughout their length to protect them from accidental damage.

We want to hear your views!

SP Energy Networks

Our public consultation runs until Friday 10 May 2024.

SP Energy Networks 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 EGL4 project in the best way.

Please give us your views on our preferred converter station site, underground cable route, landfall point and marine cable route, and anything you would like us to take into account – such as site access – to help us develop our plans.

You can find more information, project documents and an online feedback form at our project website: www.spenergynetworks.co.uk/pages/eastern_green_link_4.aspx

You can also contact us to ask any questions or give us your comments:

Email: egl4@communityrelations.co.uk

Freephone: 0800 021 7890

Freepost: FREEPOST SPEN EGL4

What happens next?

SP Energy Networks

Following this first round of consultation we will develop more detailed designs for the landfall point, converter station and cable route, including locations for access routes and working areas.

We will publish a report summarising the feedback received in this first round of consultation and how this has influenced our plans. We will then carry out a detailed Environmental Impact Assessment (EIA) and hold a second round of public consultation on the detailed designs.

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The marine cable will be subject to a separate application to the Scottish Government's Marine Directorate – Licensing Operations Team (MD-LOT).