



Scottish & Southern
Electricity Networks

TRANSMISSION

Eday Grid Supply Point (GSP) and High Voltage Alternating Current (HVAC) Connection

Public Information Events

Eday, Finstown and Tankerness
August 2026



ssen-transmission.co.uk/Eday



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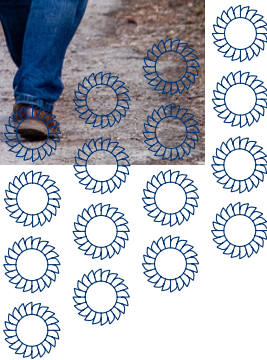
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The Information events will be taking place on:

Tuesday 11 August 2026, 10–3pm
Eday Heritage Centre, Eday, KW17 2AB

Wednesday 12 August 2026, 3–7pm
Firth Hall, KW17 2EQ

Thursday 13 August 2026, 3–7pm
St Andrews Community Centre, KW17 2QU



Powering change together



If we want to deliver on clean power and energy security targets and provide power for future generations, upgrade to Scotland’s electricity transmission infrastructure is needed.

The shift to a cleaner, more sustainable future is about more than tackling the impact of climate change, it’s about ensuring that future generations can thrive.

Countries around the world are investing in their energy infrastructure to support increasing electricity demands and to deliver on clean power targets and the UK is leading the way in building a modern, sustainable energy system for the future.

We all have a part to play

The UK and Scottish governments have set ambitious energy security and clean power targets, and we all have a part to play in delivering them.

At SSEN Transmission, we work closely with the National Energy System Operator (NESO) to connect vast renewable energy resources - like solar, wind, hydro and marine generation — to areas of demand across the country. Scotland will play a particularly big role in meeting increasing electricity demand.

But there is more to be done. By 2050, the north of Scotland is expected to contribute more than 50GW of low carbon power to the GB energy system. Today, the region has around 11GW of renewable generation connected to the network.

At SSEN Transmission, it is our role to build the energy system of the future. To do that, we are planning to invest around **£29 billion** in the coming years to upgrade the electricity transmission network in the north of Scotland. It’s an investment that will unlock cleaner, more secure energy for homes and businesses now, and for generations to come. **By 2050, annual electricity demand is expected to at least double** - our investment will support the connection of more clean power to meet that demand to the GB electricity network, supporting up to **17,500 jobs in Scotland**, with more than **8,000** of those in the north of Scotland, along the way.

Who we are

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

What we do

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

Working with you

We understand that the work we do can have an impact on communities and we are committed to minimising our impacts and maximising all the benefits that our developments can bring to your area. To do that we provide all the information you need to know about our plans and how they will impact communities like yours. The way we consult is also a two-way street and we want to hear people’s views, concerns, or ideas – and harness local knowledge – so that our work benefits communities today and long into the future. You can share your views with us at: ssen-transmission.co.uk/talk-to-us/contact-us/

Transmission in Orkney

We are leading some exciting projects to power change in the UK.

To reduce the UK and Scotland’s greenhouse emissions and help towards achieving net zero targets, high levels of renewable generation are expected to connect to the UK electricity network from the Orkney Islands. This level of additional generation cannot be supported on the existing local distribution network, connecting Orkney to the mainland infrastructure at Thurso South GSP. Therefore, the Orkney Link project was approved as a High Voltage Alternating Current (HVAC) transmission circuit between new substations at Finstown and Dounreay West on the Scottish mainland. The Orkney Link project is currently under construction and is expected to be energised in 2028.

The proposed Eday Grid Supply Point (GSP) will allow generators in the North Isles of Orkney to connect to the UK transmission network via the Orkney Link Project, by means of a 132kV HVAC link between Eday and the newly constructed Finstown Substation.

As there is currently no transmission infrastructure in Eday, a Transmission Connection Asset (TCA) is required in Eday, which includes the construction of a transformer substation building at the proposed Eday 132/33kV GSP substation, complete with a 120MVA 132/33kV transformer and associated equipment within new substation buildings. Generators, will connect into the GSP through cable connections on to 33kV circuit breakers in the substation building.



Help shape our plans

At SSEN Transmission, we are committed to delivering a robust and transparent consultation process underpinned by inclusion and accessibility. As a stakeholder led business, we understand the importance of involving communities and key stakeholders throughout each stage of our development process.

This period of engagement in the development phase of the project is vital in shaping our proposals and to do this effectively, we need to capture feedback from stakeholders and harness local knowledge to identify key risks. This event provides information on the shortlisted GSP sites in Eday and updates on the proposed marine surveys programmed for this year.

We’re committed to delivering a meaningful consultation process that actively seeks the views of everyone affected by our plans. That means making our plans clear and easily accessible, so that you can give us input throughout each stage of the development process.

We want you to share your thoughts and opinions on our plans, where you think we can make improvements, concerns about the impact of our work and what you think of any changes and refinements we’ve made. By telling us what you think, you will help shape our proposals. We want to harness your local knowledge so that we spot any unforeseen challenges early and maximise the potential benefits and opportunities for your communities. Because, ultimately, we want you to work with us to ensure that the energy infrastructure we build will be the best it can possibly be.

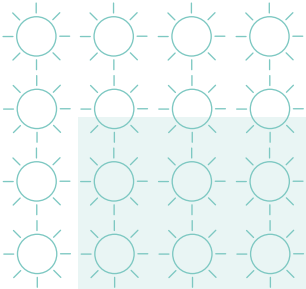
We are following up our previous consultation event in November 2025, to provide further information on the project to inform the early development phase.

What we are consulting on today

This event is focusing on the potential GSP sites and marine corridors between the preferred landfall on Eday and the Orkney Mainland and marine surveys planned for later in 2026.

Who we are consulting with

At this stage we are interested in hearing feedback from a broad range of stakeholders including but not limited to, communities, stakeholders including fisheries and aquaculture, statutory and non-statutory consultees.



Project overview

The aim of the Eday GSP and HVAC is to connect the island of Eday to the UK national transmission network, on the Orkney Mainland.

The Orkney Link project, connecting Finstown Substation with Dounreay West substation, is currently under construction.

SSEN Transmission, as the transmission Owner for the North of Scotland, have a licence obligation to provide a connection to the UK's national transmission network when applications are made by generators over a certain size. The Eday GSP project is being driven by the need to facilitate the connection of generators contracted via Scottish Hydro Electric Power Distribution (SHEPD). To facilitate this, a new 132kV subsea circuit will need to be installed between Eday and Mainland Orkney to provide these generators with access to export energy to the wider UK transmission system. This will also provide future connection capacity for potential growth on Eday and the North Isles of Orkney.

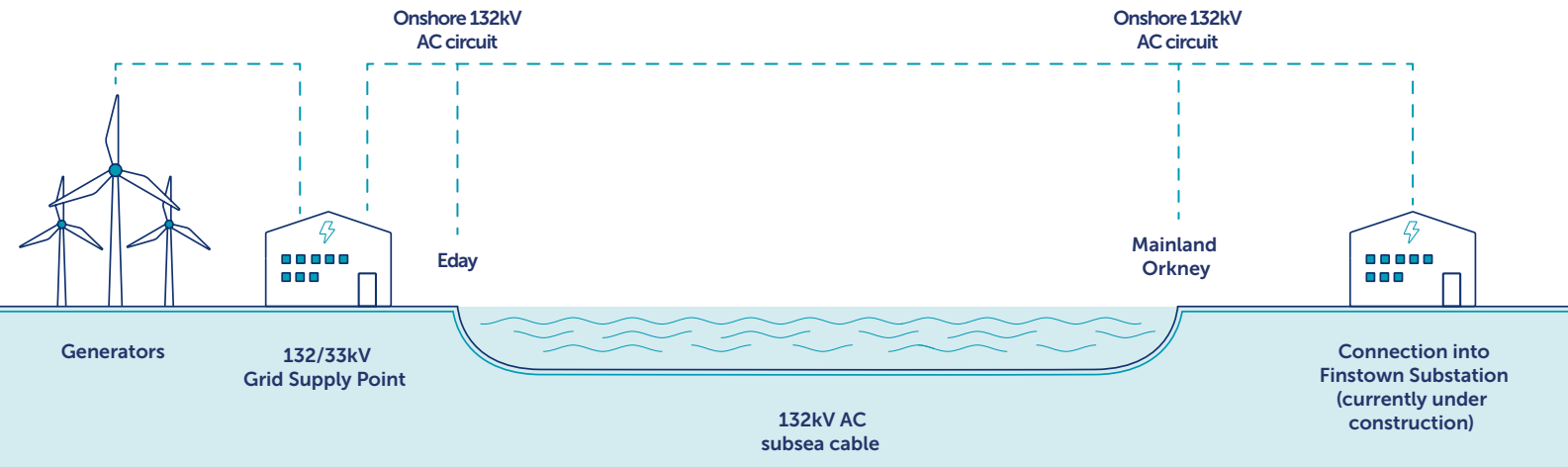


View of RJ Macleod Ltd HDD work site at Dounreay

In addition to the subsea circuit, other key elements of the Eday GSP Project include:

- Construction of a new 132/33kV GSP on Eday, to which generators will connect via the distribution network
- Construction of a new 132kV circuit on Eday and Mainland Orkney to connect from the Eday GSP to Finstown Substation

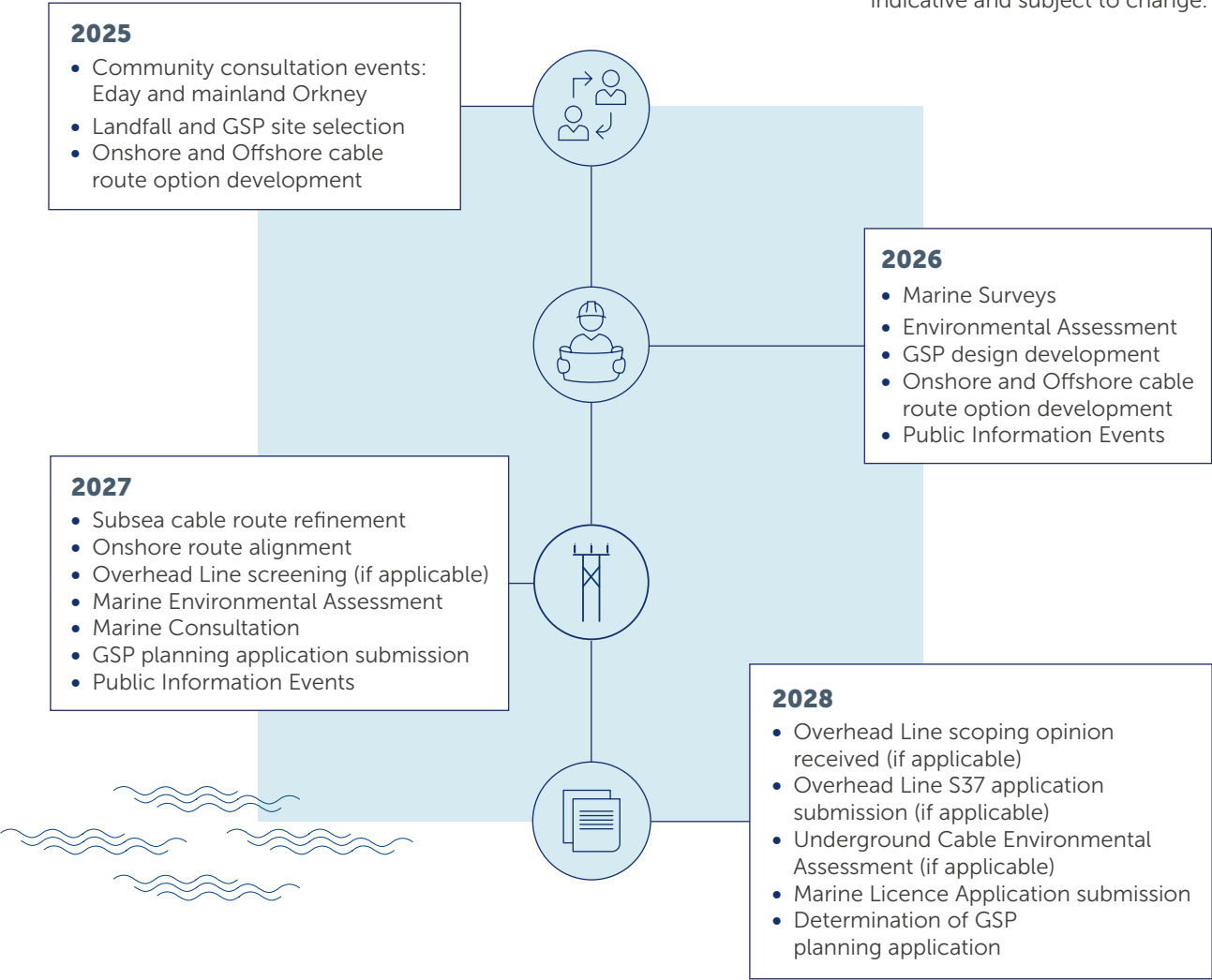
Further information in relation to the marine elements of this project will be presented at future consultation events.



Images in graphic are not to scale and are indicative only for demonstration purposes.

Site and Route Selection Timeline

*Please note that dates are indicative and subject to change.



Project elements for the Grid Supply Point

A Grid Supply Point (GSP) enables SSEN Transmission assets to interface with the distribution network, allowing distribution generators to connect into the transmission network, and for power to also be delivered from the transmission grid to the distribution grid homes.

GSP Project Elements

- A GSP platform, indicatively 130m x 95m, containing;
- A Grid Transformer Hall building, 85m x 35m, 12m high
- A Reactor Room building, 45m x 25m, 12m high
- A Switchgear/Control Room building, 30m x 20m, 10m high

*Please note these numbers are indicative at this stage and are subject to change

The local distribution network connects to the GSP through cables in to the Switchgear/Control Room building, and onwards to the Grid Transformer Hall Building. In the Grid Transformer Hall building, the voltage is stepped-up to 132kV to allow power to be exported on to the transmission network, through 132kV cables. The Reactor connects to the transmission system at 132kV, helping to stabilise the system and protect the network.

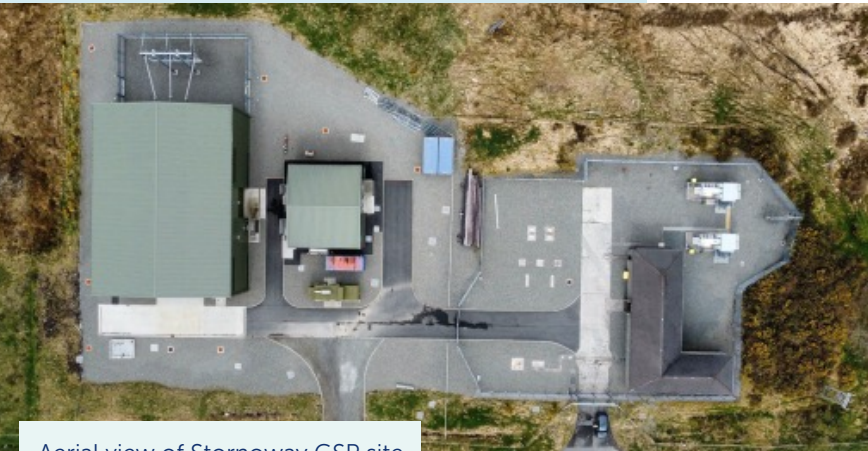
The current design will be developed in conjunction with equipment suppliers and substation designers. Depending on the location selected for the GSP, landscape forms may be used around the GSP platform to screen the development. The sizes and locations will be refined in further development, including consideration of the use of modular components, to reduce the amount of time required to build the GSP on the Island of Eday.



Example of GSP site in Stornoway



Example of GSP site in Stornoway



Aerial view of Stornoway GSP site

The Stornoway GSP site is slightly smaller than the proposed Eday GSP, at an area of 120m x 65m. The images are included to illustrate the potential design and layout. Please note that this is indicative only.

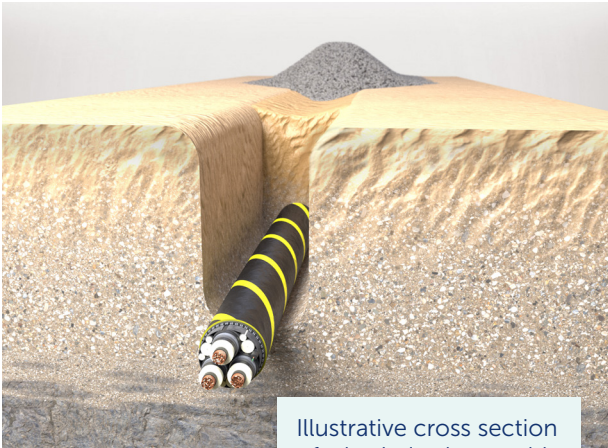
Subsea cables and landfall

Subsea cables

Subsea electricity transmission cables are important critical infrastructure that transmit high-voltage electricity across bodies of water.

The subsea HVAC system will comprise of a cable bundle which is planned to be installed in a single trench.

Wherever possible the subsea cable will be buried in the seabed to protect them. Where burial is not possible, they will be protected by using rock berms placed on top of the cable or another type of external cable protection system.



Illustrative cross section of a buried subsea cable

What is a cable landfall?

Cable landfalls or landing points are the locations where our subsea cable come ashore. When bringing the cable ashore there are two engineering options:

Open Cut Trench

A section of the shoreline is excavated and ducts are installed that will carry the cable from under the seabed onto land. The cable is then pulled through installed ducts which are then buried and the shoreline reinstated.

Horizontal Directional Drill (HDD)

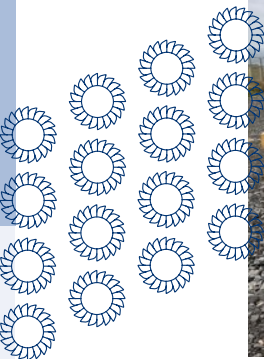
HDD is a type of trenchless method that can be used to drill and install ducts underground through the shoreline, providing an alternative method in areas of shallow bedrock or challenging geology. This is the technology type that has been selected for the project.

Is there any above ground infrastructure?

Once the shoreline is reinstated, after the cable is laid, there will be a permanent cabinet (called a link pillar), contained within a fenced area, as shown in the photo to the right.



HDD Installation example



Intermediate link pillar

Onshore Connection

Onshore transmission technologies

Typical technologies used to transmit 132kV alternating current (AC) electricity onshore fall into two categories:

- Overhead line (OHL)
- Underground cable (UGC)

At the time of writing, it has not yet been decided whether the proposed route would use overhead lines, underground cables, or a combination of both technologies.

The decision on the transmission technology to be used will be informed by the careful consideration of a range of factors, including constructability, safety, environmental effects, visual impact and cost, among other factors.

What could an overhead line look like?

If overhead line technology is selected, a range of support structure designs could be considered.

At this stage, and for illustrative purposes only, the current working assumption is that any overhead line could take the form of a trident-style wooden or steel pole arrangement, similar to that shown in the figure below. This remains subject to further assessment and has not been confirmed.

Routing design considerations

Given the scale and environmental context of the connection required between Finstown and the proposed Eday GSP, a range of technology options are being explored, including overhead line and underground cable solutions. No final decision on technology has yet been made, and this will be informed by further routeing, engineering and environmental assessment work as the project develops.

Overhead lines are typically an efficient, environmentally sensitive and economic method of transmission over long distances, and can cause less disruption during construction, particularly in carbon-rich soil environments, compared to underground cable alternatives. However, we recognise that overhead line infrastructure is not appropriate in all locations, and that there will be specific sensitivities along the route where underground cabling may be the more suitable option.

At this stage, a trident wood or steel pole structure is being considered as a potential overhead line solution, with a maximum height of approximately 18m. This would represent a lower-profile alternative to steel lattice towers, with the aim of reducing visual and landscape impact where an overhead line solution is appropriate.

The extent to which the route interacts with particular sensitivities, and therefore the extent to which underground cabling may be favoured over an overhead line solution, will depend in part on the landfall location selected. Two receptors identified as being of particular relevance in this regard are Orkney Airport, where the presence of aviation infrastructure and associated safety and operational constraints may make an overhead line solution less appropriate, and the heart of Neolithic Orkney World Heritage Site, where the international significance of the designation and the sensitivity of its setting may similarly favour underground cabling. The degree to which either receptor is affected, and therefore whether underground cabling is favoured in these areas, will be dependent on the landfall option ultimately selected.

Further assessment will continue as the project progresses, to confirm the most appropriate technology and route alignment, balancing technical, cost, environmental and community and statutory stakeholder considerations in line with our licence obligations.

What could an underground cable look like?

Once installed, an underground cable would have very little visible infrastructure above ground along most of its route.

During construction, underground cables can be installed using either open-cut or trenchless techniques.



Open-cut installation involves excavating a trench, installing cable ducts through which the cable is pulled, and then reinstating the land following construction.

Trenchless installation methods can include horizontal directional drilling (HDD) or micro-tunnelling. These techniques are typically used where the cable route crosses features such as rivers, watercourses, major roads, helping to reduce surface disruption.

At intervals along the route, individual cable sections are connected together within structures known as joint bays. Following construction and reinstatement, a small permanent cabinet, known as a link pillar, would remain at these locations within a fenced area, similar to that shown in the figure on page 9.

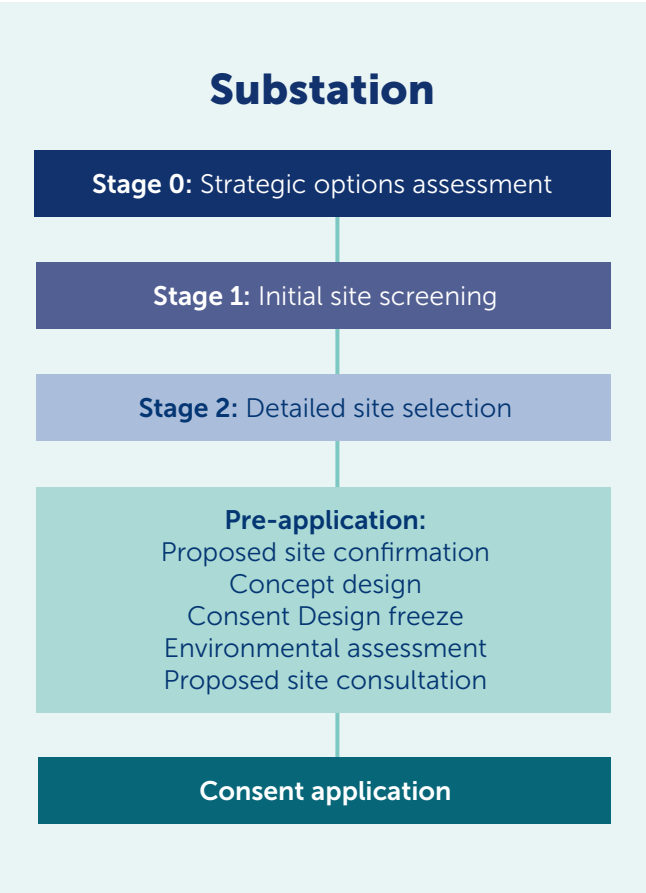


132kV Trident
Height: Up to 18m
Span: Up to 130m



Site selection process

Our site selection process ensures that the design, consenting, construction and operation of our projects are undertaken in a manner, which on balance, causes the least disturbance to the local community and environment, while ensuring the solution taken forward is economically and technically feasible.



To do this we follow an internal process supported by specialist environmental consultants. This process considers technical, environmental and cost aspects to find a balanced outcome, and also involves consulting with stakeholders and the local community.

The key stages summarised to the left, have been undertaken for this project as follows:

Stage 1: Initial site screening

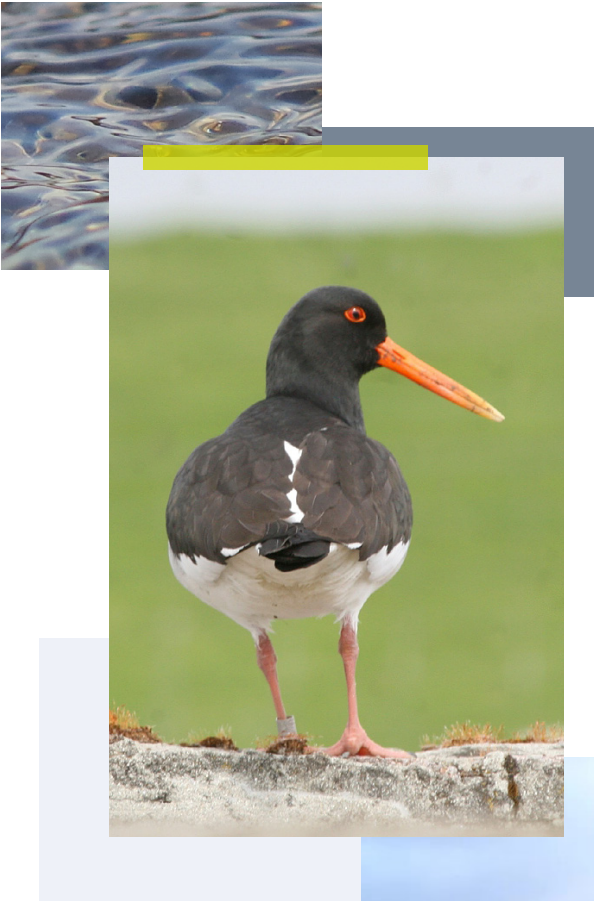
The site screening stage seeks to identify technically feasible, economically viable and environmentally acceptable site options within a defined area. An initial screening exercise was carried out to identify sites for the Eday Substation with the initial preliminary search area covering the whole extent of Eday. Within this search area, a long list of options were identified via a multi-criteria analysis process, which used Geographical Information Systems (GIS) to analyse available digital datasets for environmental and technical constraints.

This long list was further refined by analysing site suitability against the following requirements:

- Areas of land with no identified environmental constraints, with sufficient space to accommodate the electrical design including any future requirements, landscaping, and a construction compound;
- Site locations which balance the length of each connecting circuit;
- Sites which could accommodate future circuit connections;
- Sites near the public road network;
- Sites with feasible transportation and access routes for construction traffic and abnormal loads without the need for extensive works and/or considerable disruption;
- Sites that benefit from natural protection against extreme weather, such as locations away from exposed coastal areas or those with topographical features providing shelter (e.g., hills or ridges); and
- Sites with favourable surrounding topography (i.e. a backdrop such as a hill to minimise the visual impact of the substation).

The principal objective of the site selection process is to balance technical and cost considerations with environmental considerations, to select a proposed site which is economically viable, technically feasible, minimises impacts on important resources or features of the environment and reduces disturbance to those living in it, working in it, visiting it or using it for recreational purposes.

From an initial site screening using our Multi-Criteria Analysis tool, comparative analysis of potential sites is ongoing. Site surveys undertaken earlier this year will assist our assessments, allowing us to take sites forward for more detailed analysis by specialist consultants for our Stage 2 Detailed Site Selection process.



Stage 2: Detailed site selection

The Stage 2 Detailed Site Selection Stage, which the project is currently at, seeks to identify a preferred site, which avoids where possible physical, environmental and amenity constraints, is likely to be acceptable to stakeholders, and is economically viable, taking into account engineering and connection requirements.

Alongside the spatial requirements for the GSP, our site selection process has incorporated additional space required for temporary construction compound during the construction period. Some additional land may be required during the construction period for associated temporary infrastructure. This is likely to include laydown and storage areas. Provision for workers accommodation will also be required. The precise scale, location and design of these facilities have not yet been finalised and will be developed further once the preferred site has been identified.

Once a preferred site has been selected, following consultation, detailed design and further environmental surveys will be carried out. Bird surveys commenced in April of 2026 and these will be continued over the course of the next year to acquire the necessary data to support the Environmental Impact Assessment (EIA).

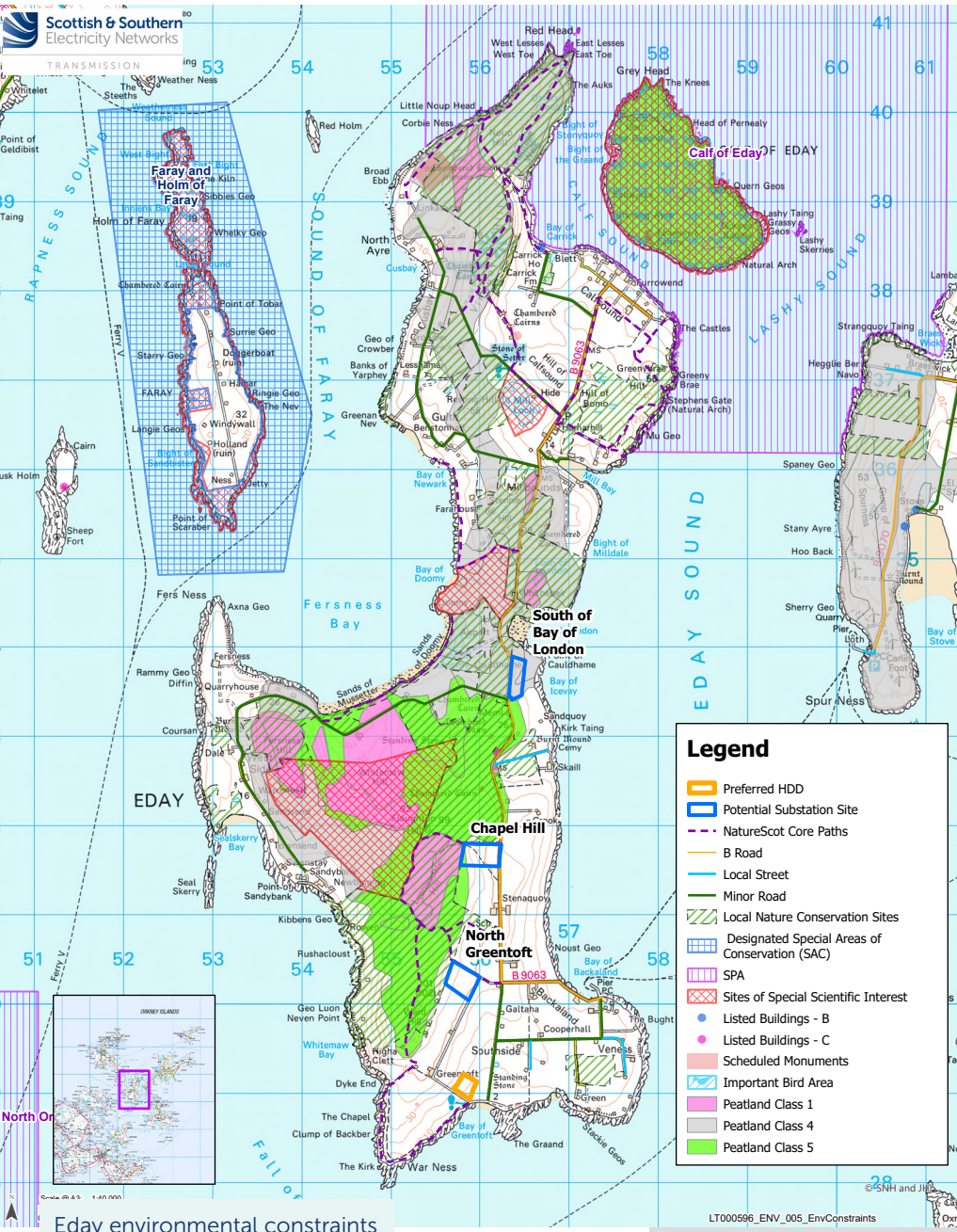
Consideration of Environmental Effects

Desk based assessment has included consideration of:

- Landscape and visual impact;
- Special Protection Areas (SPA), for birds;
- Special Areas of Conservation (SAC);
- Sites of Special Scientific Interest (SSSI);
- Local Nature Conservation Sites;
- Scheduled Monuments;
- Listed Buildings; and
- Peat depths and cover.

GSP options, considerations and constraints

Three GSP options have been progressed through to Stage 2 of our site selection process. The locations of these three options are shown on the following map.



South of Bay of London

Engineering

The Site is located adjacent to the existing road network, providing access for both construction and long-term operational maintenance. The site can accommodate all standard substation equipment types, with sufficient space for the optimal configuration. Topography presents a manageable worst-case gradient of approximately 9.5%, and BGS mapping indicates no superficial deposits, suggesting bedrock at or near the surface with no peat recorded — a positive characteristic for foundation design. The site sits within 200m of an existing 33/11kV substation, with both 33kV and 11kV overhead lines running directly through the proposed area, meaning DNO diversions would potentially be required. There is limited availability of adjacent land for ancillary infrastructure. With the primary concerns being the requirement for DNO diversions.

Environmental

Agricultural land on the Site is comprised of grades 4.2 and 6.3, classified as non-prime agricultural land. The flood risk on the Site is assessed as low according to SEPA mapping, while the site sits on Class 4 peatland, which is defined as areas where the soil may be carbon-rich but the surface vegetation does not support a typical peatland habitat. If this site was selected, further assessment on the presence or otherwise of peat would be carried out.

Other potential environmental constraints

There are three non-designated assets and one Category C Listed Building within 1km of the Site. It is situated on non-prime agricultural land and low quality forestry land, with no commercial forestry areas.

Landscape, Visual and Cultural Heritage

There are no cultural heritage designations within the site boundary, though the Eday Church Hall Scheduled Monument lies approximately 265m to the west. Three non-designated assets and one Category C Listed Building also lie within 1km of the site. The site overlaps two landscape character types — Moorland Hills and Inclined Coastal Pasture — and may affect visual amenity along key tourist and recreational routes.

Natural Heritage

The site borders the Mussetter, Doomy and London Local Nature Conservation Site to the west, separated by the main road. The Doomy and Whitemaw Hill Site of Special Scientific Interest lies approximately 420m to the north-west, a nationally significant site for breeding whimbrel and Arctic skua. No international or European designations directly constrain the site.

Chapel Hill

Engineering

The Site is positioned adjacent to the existing road network, offering straightforward construction access and good operational connectivity. The site can accommodate the full range of substation equipment types with sufficient space for the optimal configuration. However, the topography is the most challenging of the shortlisted sites, with a worst-case gradient of approximately 13.5%, meaning more extensive earthworks will be required compared to other options. British Geological Survey (BGS) mapping indicates no superficial deposits, with rock head assumed at or near surface, which is favourable for civil engineering. An 11kV overhead line runs alongside the road near the site boundary. Adjacent land is available for ancillary infrastructure.

Environmental

The Ward Hill and Chapel Hill LNCS lies immediately adjacent to the north and west of the site. The Doomy and Whitemaw Hill SSSI — of national significance for breeding whimbrel and Arctic skua — is approximately 470m to the west. No international or European designations directly affect the site. There are no cultural heritage designations within the site boundary, with the nearest Scheduled Monument (Eday Church Hall chambered cairn) located approximately 590m to the north. The site overlaps two landscape character types — Moorland Hills and Inclined Coastal Pasture — and visual impact on recreational and tourist routes will require assessment. The Agricultural land value present on the site are Grades 4.2 & 6.3, with no commercial forestry interaction. Flood risk appears low. The Core Path (Leenisdale Hill) runs along the northern boundary.

Landscape, Visual and Cultural Heritage

Situated within two Landscape Character Types, is near several settlements and properties and borders a Core Path and the Eday Experience Cycle Route. There is one Scheduled Monument and seven non designated Cultural Heritage Assets within 1km of the GSP.

Natural Heritage

Avoids designated sites however it is within connectivity distance of the North Orkney Special Protection Area. Orkney vole and hedgehogs may be present nearby due to proximity to fields and grass. The site is in proximity to Class 1 Peatland and therefore may support Annex 1 habitat (natural high-quality habitat type that requires special protection). The nearest watercourse designated under the Water Framework Directive is approximately 4.7 km north of the site. It is near to two private water supplies and two water tanks, is within an area of flood risk associated with drains and is within the Eday Drinking Water Protected Area.

Greentoft

Engineering

The site is adjacent to the existing road network with good construction access and operational maintainability, and is approximately 1,900m from the harbour. The site can accommodate the optimal substation configuration. Ground conditions are generally favourable, with no superficial deposits recorded suggesting rock head at or near surface, and a fault recorded approximately 750m to the east — sufficient distance to avoid differential settlement concerns. An 11kV overhead line is located approximately 350m from the south-west corner of the site, and a main water pipeline (Scottish Water) is similarly proximate, meaning interface with existing utilities will require careful management.

Environmental

The Greentoft site performs well from an environmental perspective. No Annex 1 habitat constraints have been identified, and the site is unlikely to affect groundwater-dependent ecosystems nearby. There are two private water supplies within 1km of the site, and only minor, low-probability areas of surface water flooding associated with field drains. The site also falls within the Eday Drinking Water Protected Area. The agricultural land is grade 4.2.

Landscape, Visual and Cultural Heritage

The site sits within two Landscape Character Types and is located near several settlements and properties. It is close to Core Paths and borders the Eday Experience cycle route. There are no cultural heritage designations within or immediately next to the site, and the nearest Scheduled Monument, Stackel Brae, lies approximately 1.3km to the south-east. No landscape designations apply to the site.

Natural Heritage

The Ward Hill and Chapel Hill Local Nature Conservation Site borders the site, though no other natural heritage designations lie in direct proximity, and the site avoids all formally designated nature conservation sites, although it lies within connectivity distance of the North Orkney Special Protection Area. The land may provide suitable habitat for Orkney vole and hedgehogs, and for Schedule 1 birds and other birds of conservation concern, so further ecological surveys will be carried out to confirm this. The nearest watercourse designated under the Water Framework Directive is around 6.5km to the north.

Conclusion

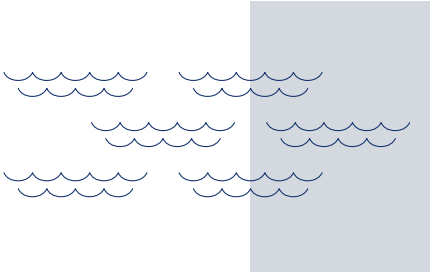
When considering the technical and environmental considerations of each site, The Greentoft site has the lowest potential to be constrained, and therefore the most suitable to be taken forward in the development process.

Compared to the Chapel Hill and South of Bay of London GSP Sites, Greentoft performs more strongly across environmental and technical parameters:

- It avoids all designated sites;
- It is situated beside existing roads, providing access;
- It is the closest site location to Eday Ferry Terminal;
- There are no known archaeological or cultural heritage designations within the site; and
- It is not situated on prime agricultural land or forestry areas.



Marine Corridor Options Assessment



In November 2025, SSEN Transmission held public consultation events where we presented marine corridor options that provided connection options between three landfall options on mainland Orkney and three landfall options on Eday.

Since then, we have completed assessments of each marine corridor option to understand the associated marine technical, environmental and commercial constraints. Following this assessment, two corridors were shortlisted.

- Greentoft to Banks/Wass Wick
- Greentoft to Clivie Bay

Greentoft was identified as the preferred landfall on the Eday side due to its technical feasibility (for HDD), its proximity to the preferred GSP location and it being favourable from a marine routing perspective. As a result, all shortlisted corridor options make landfall at the Greentoft landfall.

It was also concluded that marine route development to an alternative landfall location should be considered.

Hangie Bay was previously considered at landfall selection stage and presented at the public consultation events held in September 2025. It was subsequently discounted from consideration due to concerns around the technical feasibility and the proximity of the site to a designated seal haul out site. However further technical studies concluded that this option is feasible for HDD. It has now been extended to the north to introduce the option of making landfall further from the designated seal haul out and limiting any impacts.

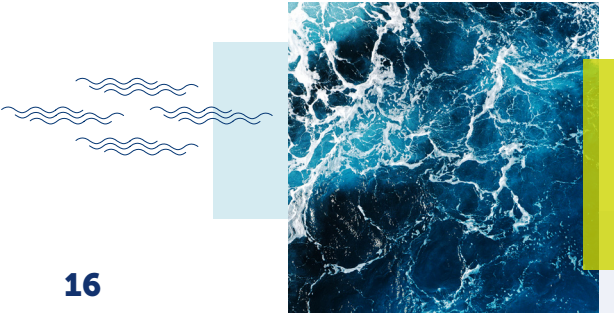
A marine corridor option from Greentoft to Hangie Bay has now been developed.

Due to the tidal conditions through the Gairsay sound making cable laying activity not feasible, the Greentoft-Banks Wass Wick marine corridor has been discounted.

Due to the Greentoft to Hangie Bay route having a similar level of constraint to the Greentoft to Clivie Bay route, the Clivie Bay route was discounted due to the longer cable length required for this option.

The Greentoft to Hangie Bay route will be progressed to the marine survey stage.

The constraints for each shortlisted marine corridor option are provided in more detail on the following pages.



Considered marine corridor options

Greentoft to Banks/Wass Wick corridor

Marine Technical Constraints:

There are difficult seabed conditions present along the route which may make cable installation challenging i.e. potential mobile sediments, hard substrate and a shallow ridge. Geophysical surveys will be required to confirm the presence and nature of these seabed features. There is technical risk associated with the tidal currents present along the cable route to the extent that this option is not technically feasible.

Environmental Constraints:

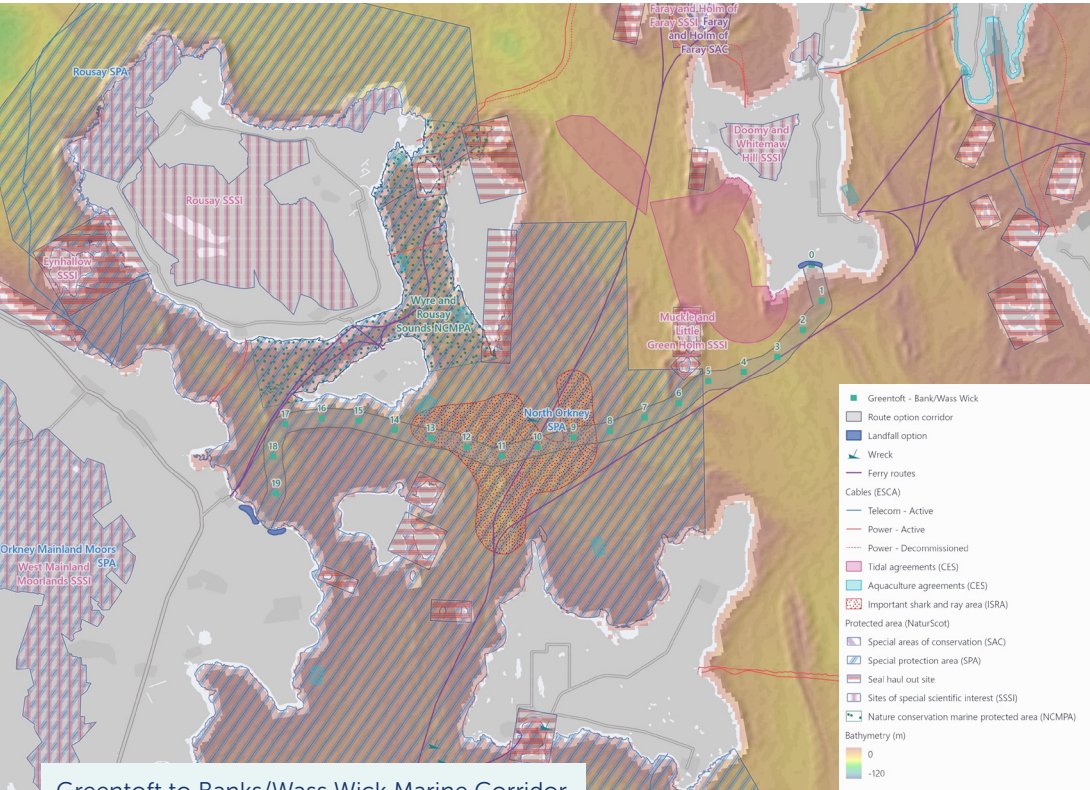
The corridor routes through the North Orkney SPA designated for breeding and non-breeding birds. Installation activity may result in temporary disturbance. The corridor is also within connectivity range of two SACs designated for seals. On the approach to the Banks/Wass

Wick landfall the corridor will interact with The Galt Important Shark and Ray Area (ISRA) designated for the conservation of flapper skate. Appropriate mitigation will be agreed with the Statutory Nature Conservation Body. For the SPA, this is likely to include seasonal restrictions for red-throated diver breeding, which display high usage of the Gairsay Sound for feeding.

There are benthic features, i.e. features which live on or in the seabed, present along the cable route which are protected by legislation and at risk of disturbance from cable installation. This includes potential protected reef habitat and records of Priority Marine Features (PMFs) e.g. maerl and sea grass along the cable route. The presence and extent of these features would need to be confirmed by marine survey.

Commercial Fisheries:

There are important commercial fisheries operating in this area in moderate to high levels throughout the year. Given the nature of these fishing activities, early engagement with fishers will be required.



Greentoft to Banks/Wass Wick Marine Corridor

Greentoft to Clivie Bay corridor

Marine Technical Constraints:

There are difficult seabed conditions present along the route which may make cable installation challenging i.e. potential mobile sediments, hard substrate and outcropping bedrock. Geophysical surveys will be required to confirm the presence and nature of these seabed features. There is technical risk associated with the tidal currents present along the cable route which should be considered.

Environmental Constraints and Route Length:

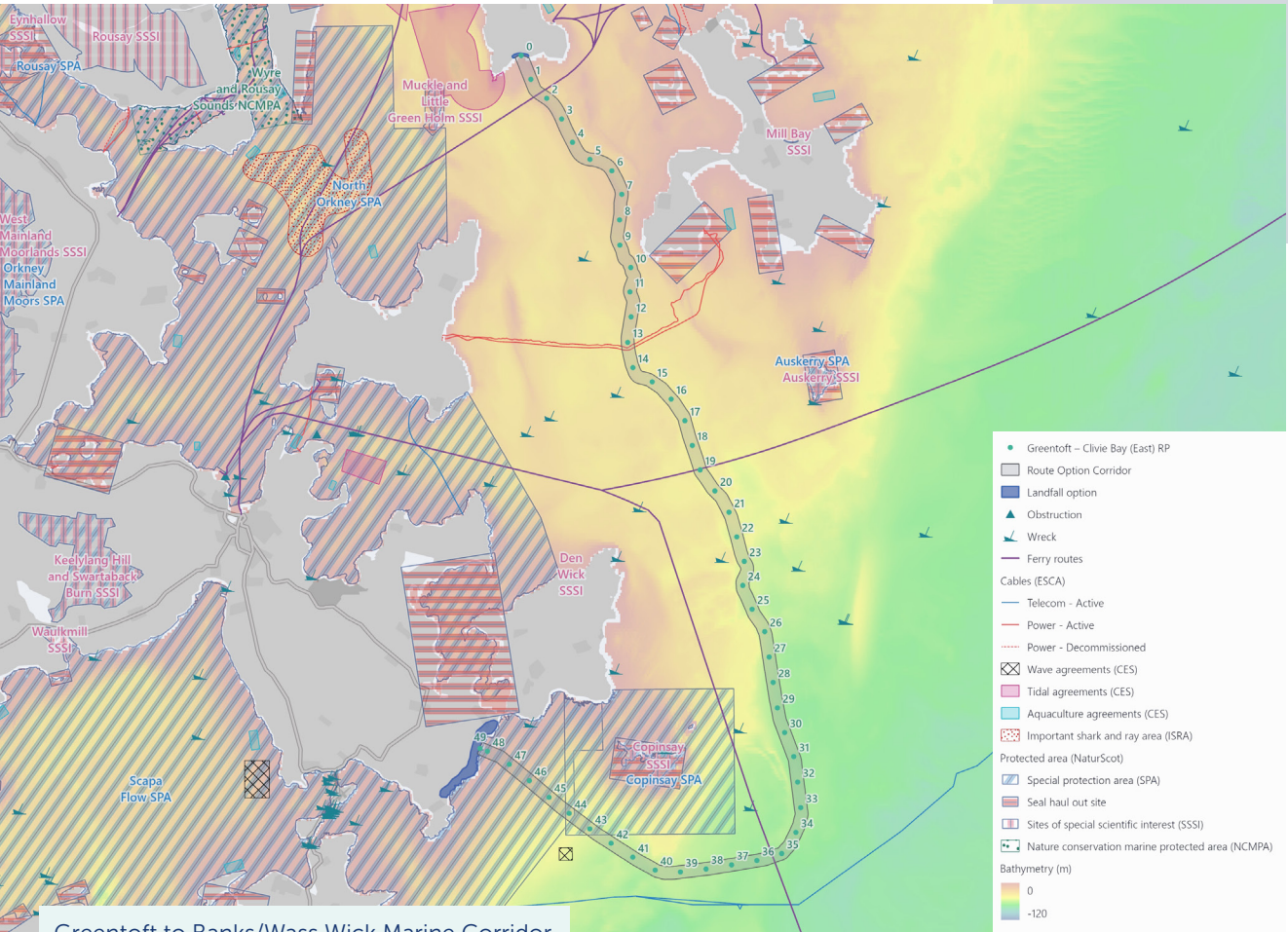
This corridor routes through an area of the Copinsay SPA, designated for breeding birds and the Scapa Flow SPA designated for breeding and non-breeding birds. The corridor is also within connectivity range of two SACs designated for seals. Appropriate mitigation will be agreed with the Statutory Nature Conservation Body and may include seasonal restrictions.

There are benthic features present on the cable route or within proximity which are protected by legislation and at risk of disturbance from cable installation. This includes potential protected reef habitat, which is recorded along the cable route, and PMFs e.g. maerl and horse mussel which are recorded in proximity to the cable route. The presence and extent of these features would need to be confirmed by marine survey.

The corridor length is 49km making it the longest of the shortlisted marine corridors. Longer cable routes increase the overall environmental footprint on the seabed and lead to higher installation costs, making it favourable to minimise corridor length where possible. As the Clivie landfall is East of Kirkwall, the resulting onshore route would also be long and complex.

Commercial Fisheries:

There are important commercial fisheries operating in this area in moderate to high levels throughout the year. Given the nature of these fishing activities, early engagement with fishers will be required.



Greentoft to Banks/Wass Wick Marine Corridor

Marine corridor selected for survey

Greentoft to Hangie Bay corridor

Marine Technical Constraints:

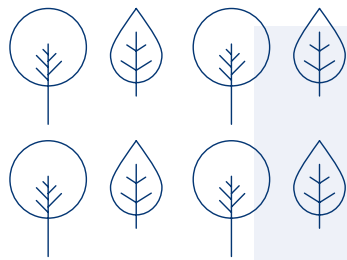
There are difficult seabed conditions present along the route which may make cable installation challenging i.e. potential mobile sediments, hard substrate and outcropping bedrock. Geophysical surveys will be required to confirm the presence and nature of these seabed features. There is technical risk associated with the tidal currents present along the cable route which should be considered.

Environmental Constraints and Route Length:

The corridor routes through the North Orkney SPA designated for breeding and non-breeding birds. Installation activity may result in temporary disturbance. The southern extent of the corridor at the Hangie Bay landfall is within close proximity to the Deer Sound seal haul out, designated for harbour and grey seal. The corridor is also within connectivity range of two SACs designated for seals. Appropriate mitigation will be agreed with the Statutory Nature Conservation Body and may include seasonal restrictions.

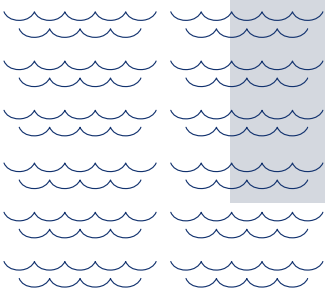
There are benthic features present on the cable route or within proximity which are protected by legislation and at risk of disturbance from cable installation. This includes potential protected reef habitat, which is recorded along the cable route, and PMFs, e.g. maerl and horse mussel which are recorded in proximity to the cable route. The presence and extent of these features would need to be confirmed by marine survey.

This corridor is 24km long. Whilst this route presents a shorter marine cable route than the Clivie Bay route, the resulting onshore cable route to Finstown would be long and complex. Longer cable routes increase the overall environmental footprint on the seabed and lead to higher installation costs.



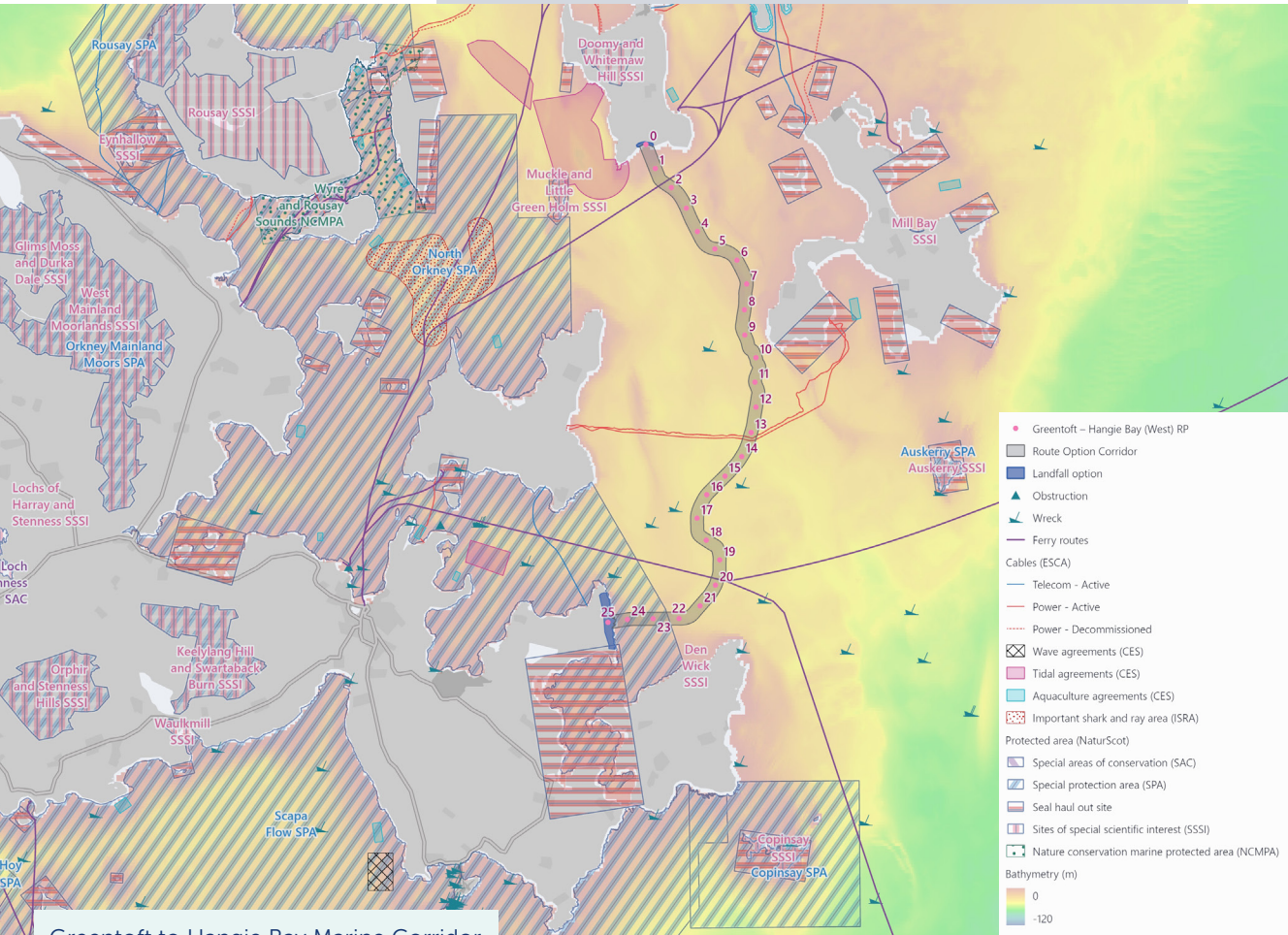
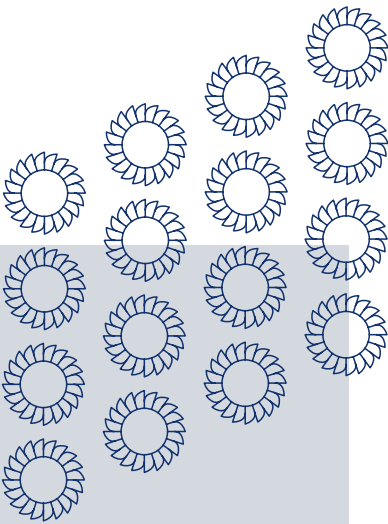
Commercial fisheries:

There are important commercial fisheries operating in this area in moderate to high levels throughout the year. Given the nature of these fishing activities, early engagement with fishers will be required.



Next steps:

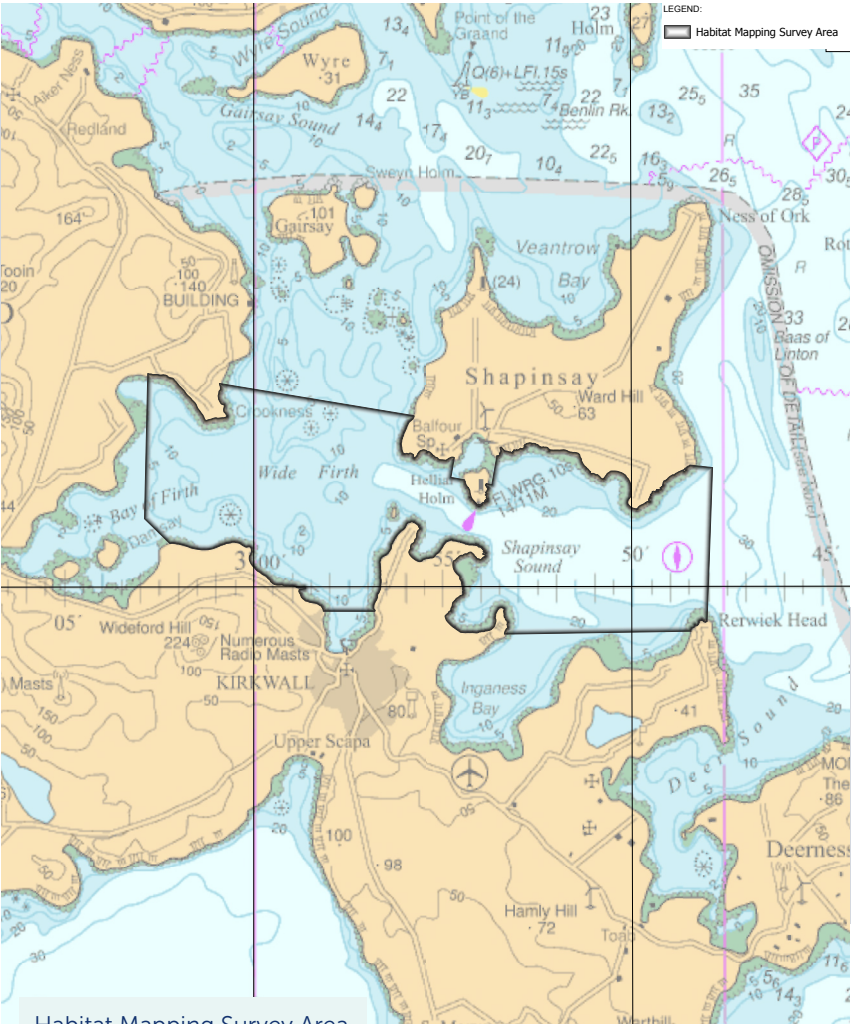
- Further technical study of the Hangie Bay landfall area will be undertaken to confirm a suitable location for landfall.
- Data from the marine survey will be reviewed and will inform the detailed alignment design of the marine cable.



Bay of Firth Marine Corridor Exploration

In light of the consultation feedback received to date, we wish to reconsider the option to landfall within or adjacent to the Bay of Firth which would result in a shorter, less complex onshore route. However, there are records of important habitats/features known as Priority Marine Features (PMFs) within the Bay of Firth which may preclude routing in this area. PMFs are afforded legislative protection due to their ecological importance. Some of the PMFs we are likely to find in the Bay of Firth are very sensitive to disturbance from cable lay operations i.e. horse mussel beds, maerl beds, sea grass beds and flame shell beds. As such, we do not intend to progress with any route development within the Bay of Firth or adjacent waters unless it is possible to do so whilst limiting or avoiding any interaction with PMFs.

To fully understand the habitats and features present in the area, we are planning to undertake a habitat mapping survey of the area. This survey will collect geophysical and visual data only. The habitat mapping is an initial step to determine if it is possible to develop a subsea cable route into the Bay of Firth that will not pose a significant risk to the marine environment. Should the results of this assessment conclude that it is possible to develop a route into the Bay of Firth, further assessment would be required to confirm a preferred landfall site and cable route to that location and thereafter additional survey activity to support development of that option.



Habitat Mapping Survey Area

Marine Survey

The first marine survey campaigns are currently scheduled for Autumn 2026.

Initial habitat mapping information will be collected in and around the Bay of Firth to inform any additional corridor development work.

A full survey campaign will be completed for our already defined corridor option, Greentoft to Hangie Bay, to collect detailed information on bathymetry, seabed sediments and biological features and wrecks, in order to inform route refinement. Our marine offshore and nearshore survey operations include the following for the full survey campaign:

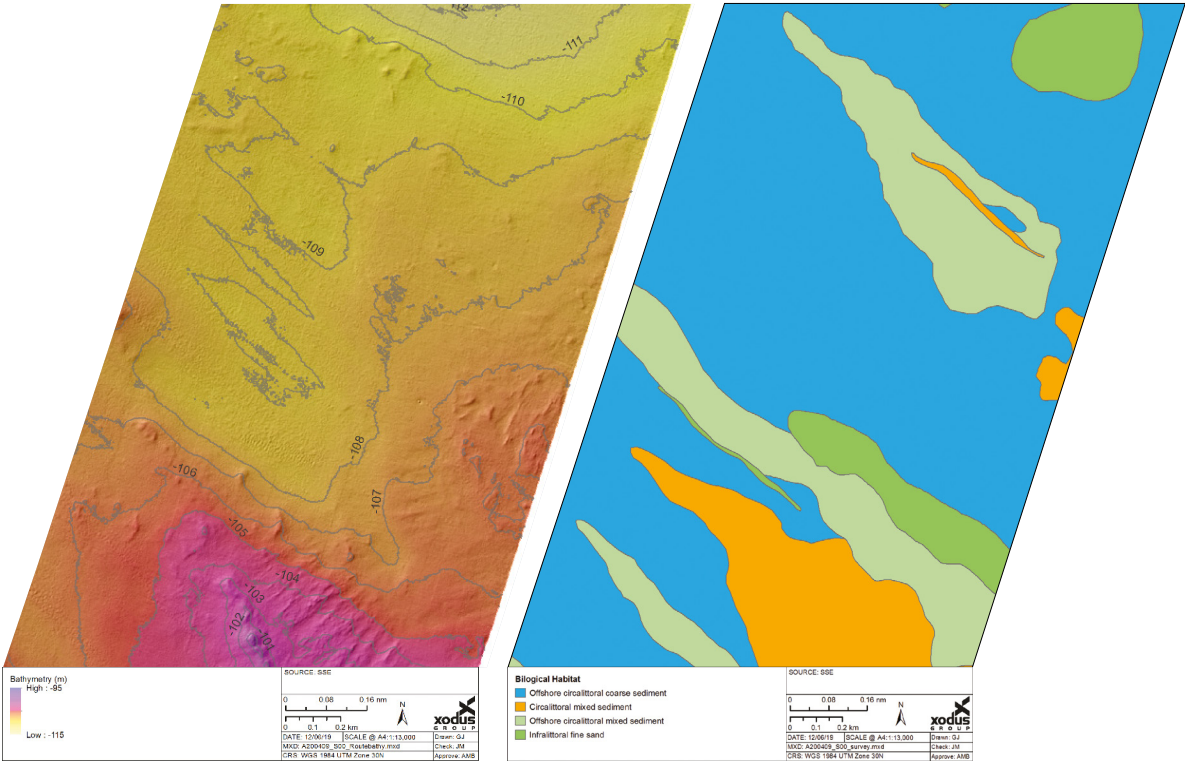
1. Fisheries

There are important commercial fisheries in the area throughout the year that may be impacted by the marine survey. Early notification of survey dates will be communicated and mitigations to reduce impacts will be sought.

2. Geophysical data acquisition

To determine water depths, seabed features, shallow geology, object detection and cable crossing positions.

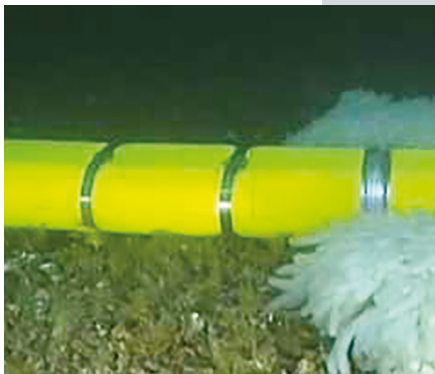
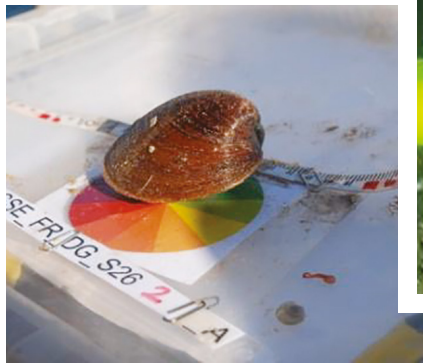
Instruments used: Multibeam Echo Sounder (MBES), Side Scan Sonar (SSS), Sub-bottom Profiler (SBP) and Magnetometer (offshore and nearshore).



3. Environmental survey

The data from the Side Scan Sonar (SSS) and the Multi Beam Echo Sounder (MBES) is used to create habitat boundaries which are then checked using cameras and grab samples to create maps of the type and extent of seabed habitats.

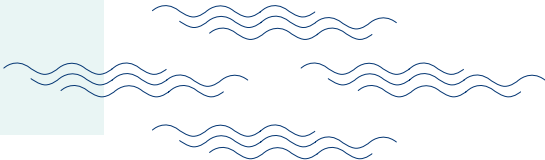
Instruments used: grab sampler and drop-down camera.



4. Geotechnical survey

To determine the structure and physical properties of the surficial and shallow sediment layers. Tools are used to recover cores of sediment and push a cone through the sediment measuring the resistance.

Instruments used: Vibrocorer and Cone Penetrometer Testing (CPT).



Frequently Asked Questions

Why were no landfall options considered on the East of Eday?

The initial list of landfall options included sites across a wide area. Some locations, including parts of East Eday, were discounted at an early stage due to environmental constraints, seabed conditions, technical feasibility, or constructability issues. We share the rationale for sites taken forward at each stage of the process.

Have alternative landfall construction methods (e.g. OCT) been considered alongside HDD?

Yes. During early optioneering, both HDD (horizontal directional drilling) and other construction methods, including open-cut trenching (OCT), are considered where technically appropriate. Each method is assessed against environmental impact, installation feasibility, and ground conditions. Only the most suitable methods progress to detailed assessment for each site.

Will the connection be overhead or underground?

We are currently progressing with assessment of both underground cable (UGC) and overhead line (OHL) options.

Taking into account the following criteria:

- Environmental and landscape sensitivity
- Local planning considerations
- Construction feasibility
- Cost and long term network reliability
- Location of landfall in proximity to Finstown Substation

No final decision has been taken on the technology type at this stage.

How will the project avoid disrupting ferry routes, harbours, and local marine activity?

We work with harbour authorities, ferry operators, and local marine users to plan installation activities. Installation windows, vessel movements, and cable burial plans are designed to minimise disruption. Any temporary impacts will be communicated well in advance.

How do you pick where the consultations are held?

Consultation venues are selected based on availability, accessibility, and their ability to accommodate the public. They do not indicate a preference for any particular route or landfall site. All options in the assessment process are treated equally and assessed against the same criteria.

Why are some people not receiving project updates?

SSEN Transmission provides project updates through our consultation events, project website, newsletters, and direct mailing lists. Anyone wishing to receive future updates can request to be added to the project mailing list. We continue to ensure our communication channels are accessible and regularly reviewed to support effective engagement.

Why were the maps at the event difficult to read?

We recognise that some map formats are easier to read than others. Large-format A0 maps were well-received, and we will continue to provide these at future events. We are reviewing feedback on banner-style maps and will update the materials to ensure all key information is clearly visible.

What is the expected distance from the landfall to the first pole if an overhead line (OHL) is chosen?

No decision has been made about whether this section of the connection will be overhead or underground. The distance from landfall to the first support structure can only be confirmed once engineering assessments, environmental studies, and route optioneering are complete.

Why do we not publish the full assessment criteria for site selection?

We share the key criteria used in the site-selection process, which include technical feasibility, environmental and cultural heritage constraints, construction considerations, and community impacts.

As we move through each stage of development, we publish the relevant findings. Some detailed technical assessments remain internal until they are complete or validated, but our approach is based on the network design and SSEN's established options appraisal methodology.

How are visual impacts being considered?

Visual impact is a key part of our environmental assessment. We review landscape character, viewpoints, heritage assets, and community feedback. If overhead lines are required, we design them to minimise skyline intrusion and avoid areas of high sensitivity where possible. We also avoid the use of lighting on structures unless required by aviation regulations.

How will you minimise disruption to the natural environment, including wildlife, marine life, and fisheries?

Environmental protection is a core part of SSEN Transmission's project development.

We conduct detailed assessments covering:

- Marine ecology
- Burial depth and seabed disturbance
- Electromagnetic fields (EMF)
- Protected species
- Commercial fishing activity

Marine cables are typically buried where feasible to protect them and minimise disturbance. We work closely with regulators, EMEC, and local fishing groups to ensure impacts are understood and mitigated.

Why weren't routes directly into the Bay of Firth taken forward?

We are revisiting the results of our desk based assessment regarding the potential restrictions to making landfall within the Bay of Firth, which primarily was concerned with the presence of Priority Marine Features. The project is undertaking a Marine Habitat Mapping Survey to ascertain if there is sufficient space to avoid impacts to these habitats.

Why are some marine routes longer than others, and why are longer routes being considered?

Route lengths vary depending on seabed conditions, environmental constraints, and technical feasibility. Sometimes a longer marine route may have fewer environmental impacts or fewer interactions with sensitive areas. All marine routes are assessed on a consistent basis to identify the most balanced and responsible option.

How will noise from substations or transformers be managed?

Following noise assessment to consider local conditions and distance to homes, the substation will be designed to operate in compliance with any noise limits imposed via Planning Conditions associated with the any future planning consent. Mitigation measures — such as acoustic screening — may be applied where needed to ensure compliance with noise standards and protect local amenity.

How is SSEN Transmission considering Orkney's heritage and archaeology?

Heritage protection is a statutory requirement. All potential sites undergo rigorous archaeological screening.

We work with:

- Historic Environment Scotland
- Local authority archaeologists
- Independent heritage specialists

If a site contains significant archaeological features or presents a high risk of disturbance, it is unlikely to progress further in the assessment process.

What happens to concerns raised by community members?

All feedback is logged, reviewed by the project team, and considered in the development of updated route options and assessments. Issues raised through consultation inform both engineering design and environmental appraisal.

Why are you considering productive farmland?

We aim to avoid high-quality agricultural land where possible. However, viable locations must also meet electrical, environmental, and engineering needs. During early stages, a wide range of land parcels are assessed, and feedback from landowners is considered before any site progresses. Avoiding or minimising impact on farmland remains a priority.

Have your say

We understand and recognise the value of feedback provided by the community and stakeholders. Without this valuable feedback, we would be unable to progress projects and reach a balanced proposal.

The feedback period

We will accept feedback from now until 12 September 2026.

How to provide feedback:

- Submit your feedback online by scanning the QR code on this page or via the form on our project webpage.
- Email the feedback form to the Community Liaison Manager, or write to us enclosing the feedback form at the back of this booklet.

What we're seeking views on

We want to know your thoughts on the GSP and landfall sites under consideration. We'll be actively looking to mitigate the impacts of the project as much as possible over the coming months, but it would be helpful to understand what you believe we should be doing to help minimise these impacts and if there are any opportunities to deliver a local community benefit you would like us to consider.

We encourage all interested community members to fill in a feedback form when submitting feedback, however if you prefer, you can email us to provide your feedback or ask any questions.

Our Community Liaison team

Each project has a dedicated Community Liaison Manager who works closely with community members to make sure they are well informed of our proposals and that their views, concerns, questions or suggestions are put to our project teams.

Throughout the life of our projects, you will hear from us regularly. We aim to establish strong working relationships by being accessible to key local stakeholders such as community councils, residents' associations and development trusts, and regularly engage with interested individuals.



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

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

Community Liaison Manager

Natalie Henderson

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

eday.engagement@sse.com

You can also follow us on social media:

@sentransmission SSENTransmission

SSEN Transmission

Additional information:



The best way to keep up to date is to sign up to project updates via the project webpage: ssen-transmission.co.uk/Eday

Your feedback

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

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

Q1. Are there any factors or environmental features that you consider to be important and that should be brought to the attention of the project team?

Comments:

Q2. Is there any information regarding the potential marine cable route and the preferred landfall at Greentoft Bay that should be brought to the attention of the project team?

Comments:

Q3. Please rank the GSP sites by order of preference

Please number the boxes in order of preference, 1 being the most preferred and 3 being least.

☐

Chapel Hill

☐

Greentoft

☐

South of Bay of London

Q4. Do you feel that sufficient information has been provided to enable you to understand what is being proposed and why?

☐

Yes

☐

No

☐

Unsure

Comments:

Q5. At this early stage of development, we would also like to start collecting ideas and opinions on what the community would like to see as potential community benefits. We welcome initial feedback on community preferences and priorities at this time.

Comments:



Q6. We continuously seek to identify the best methods of communication based on community needs. Please tell us how you would prefer to receive project updates so that we can consider this for future improvements.

☐ Newsletter

☐ Email to a mailing list

☐ Text message

☐ Public meetings

☐ Website updates

☐ Other (please state)

Full name: **Email:**

Telephone: **Address:**

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

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

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

Post: SSEN Transmission, Prime Four Business Park, Kingswells Causeway, AB15 8PU
Email: eday.engagement@sse.com
Online: ssen-transmission.co.uk/Eday

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

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

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

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

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Notes





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