



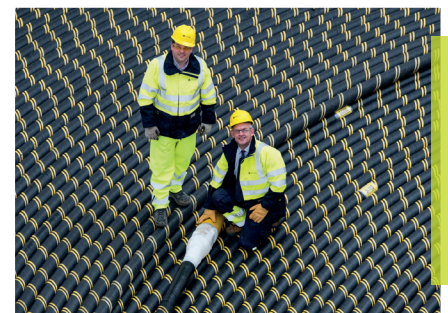
Scottish & Southern
Electricity Networks

TRANSMISSION

Shetland HVDC Link 2 – Marine Event

Public Information Session

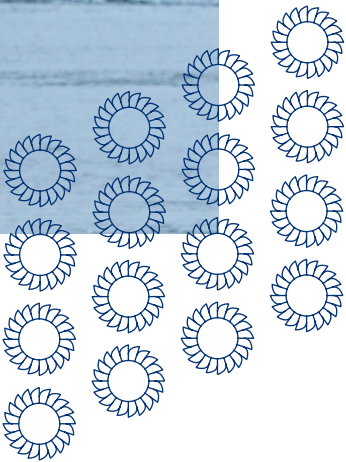
Mossbank and Portsoy
November 2025



ssen-transmission.co.uk/shetland2

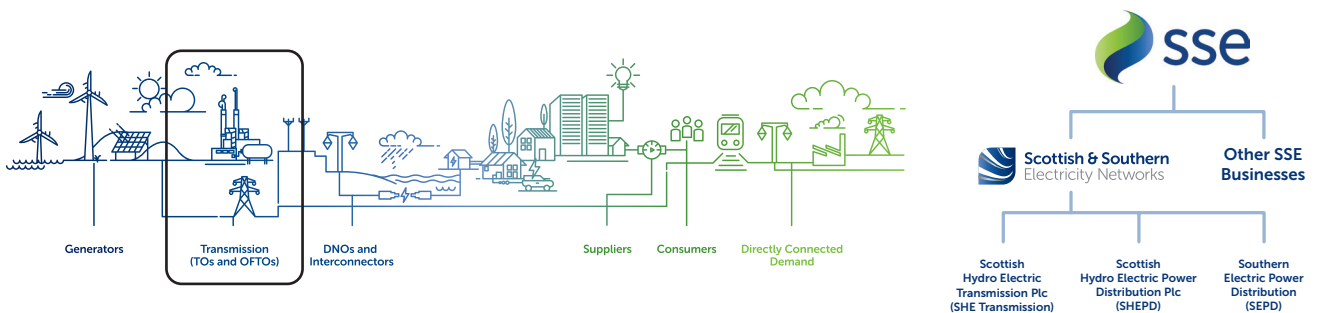
Contents

Who we are	03	Scotland Mainland landfall selection	18
Powering change together	04	Potential Scotland mainland landfall sites	20
Help shape our plans	05	Potential Scotland mainland landfalls and marine approaches	22
The story so far	06	Marine corridor optioneering	24
Shetland HVDC Link 2 project overview	07	Marine survey	26
Considerations during site and route selection	08	Project development next steps	28
What is a landfall?	10	Lasting legacy	29
Shetland landfall selection	11	Next steps	30
Potential Shetland landfall sites	12	Feedback	31
Potential Shetland landfalls and marine approaches	14		



Who we are

We are Scottish and Southern Electricity Networks (SSEN Transmission), operating under licence as Scottish Hydro Electric Transmission Plc (SHE Transmission) for the transmission of electricity across the north of Scotland.



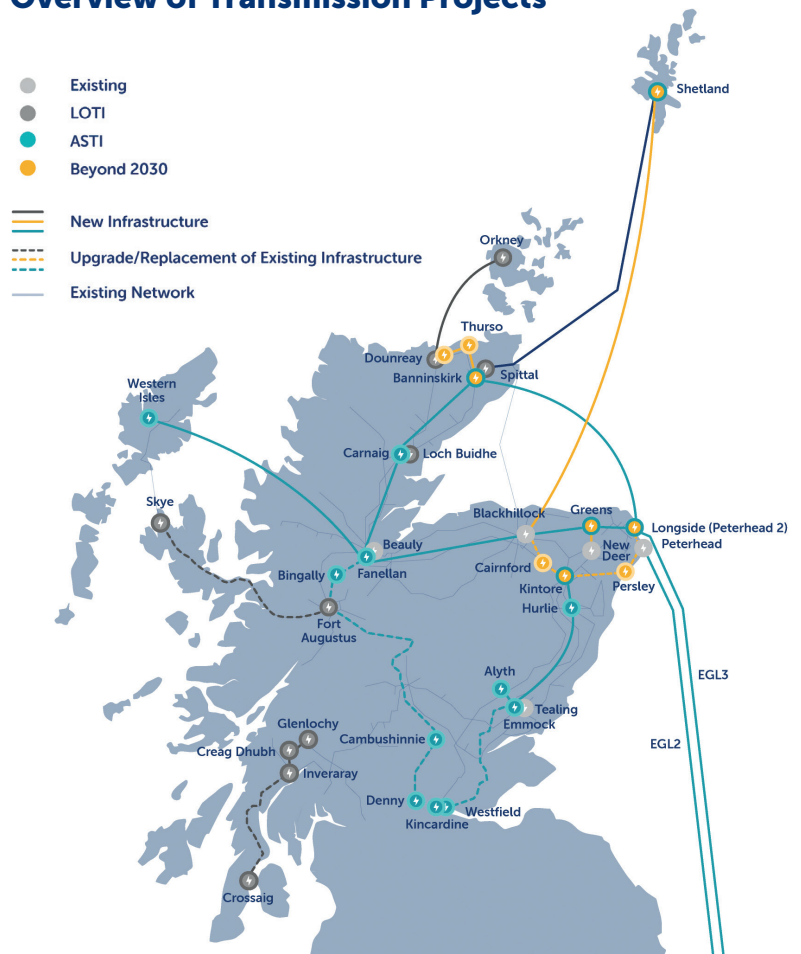
We are responsible for maintaining and investing in the electricity transmission network in the north of Scotland. Our network extends over a quarter of the UK's landmass, crossing some of its most challenging terrain.

Our first priority is to provide a safe and reliable supply of electricity to our communities. We do this by taking the electricity from generators and transporting it at high voltages over long distances through our transmission network for onward distribution to homes and businesses in villages, towns and cities.

Our operating area is home to vast renewable energy resources, and this is being harnessed by wind, hydro and marine generation. Working closely with the National Energy System Operator (NEMO), we enable electricity generators to connect to the transmission system, allowing the electricity generated by them to be transported to areas of demand across the country.

As a natural monopoly, we are 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 in the north of Scotland. These costs are shared between all those using the transmission system, including generation developers and electricity consumers.

Overview of Transmission Projects



Powering change together

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

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

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



We all have a part to play

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

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

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

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

The proposed developments are in-line with SSEN Transmission's commitment and licence obligation to facilitate the connection of renewable generators to the grid through an economical, efficient and coordinated approach to transmission reinforcement.

We're investing £20 billion into our region's energy infrastructure this decade, powering more than ten million UK homes and 20,000 jobs, 9,000 of which will be here in Scotland.

Who we are

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

What we do

We manage the electricity network across our region which covers a quarter of the UK's landmass, 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 cables, subsea cables and overhead lines to electricity substations, our network keeps your lights on all year round.

Working with you

We understand that the work we do can have an impact on our host communities. So, we're committed to minimising our impacts and maximising all the benefits that our developments can bring to your area.

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

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 projects 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. Today we are presenting the marine corridor options for the Shetland HVDC Link 2 project between Shetland and mainland Scotland.

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.

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.

If you require additional support to submit your views, please contact our Community Liaison Team (shetlandengagement@sse.com) who will happily assist you.



What to expect from this event

The aim of today's event is to share with the community and other stakeholders the progress made on the project and to gain valuable feedback to help inform the project going forward.

There will also be experts from SSEN Transmission on hand to answer any questions you may have.

Specifically we will share with you the potential marine corridor options, associated landfalls and how we identified these.

Your feedback today has the power to influence outcomes. Across our wider portfolio, local insight has already led to changes in routing and design. By sharing your views, you're helping us to understand what matters most to the people who live and work here.

Whether you have detailed feedback or just a first impression, we would really value your input.



The story so far

The Shetland Islands have a vital role to play in the UK’s clean energy future. This has been formally recognised through independent national planning. In March 2024, the National Energy System Operator’s (NESO) Beyond 2030 report confirmed that additional transmission infrastructure is needed, both on Shetland and the Scottish mainland to connect future renewable generation and to support security of electricity supply across Great Britain.

This assessment forms the basis of the Shetland Strategy – NESO and Ofgem have tasked us with providing coordinated response to a confirmed need.

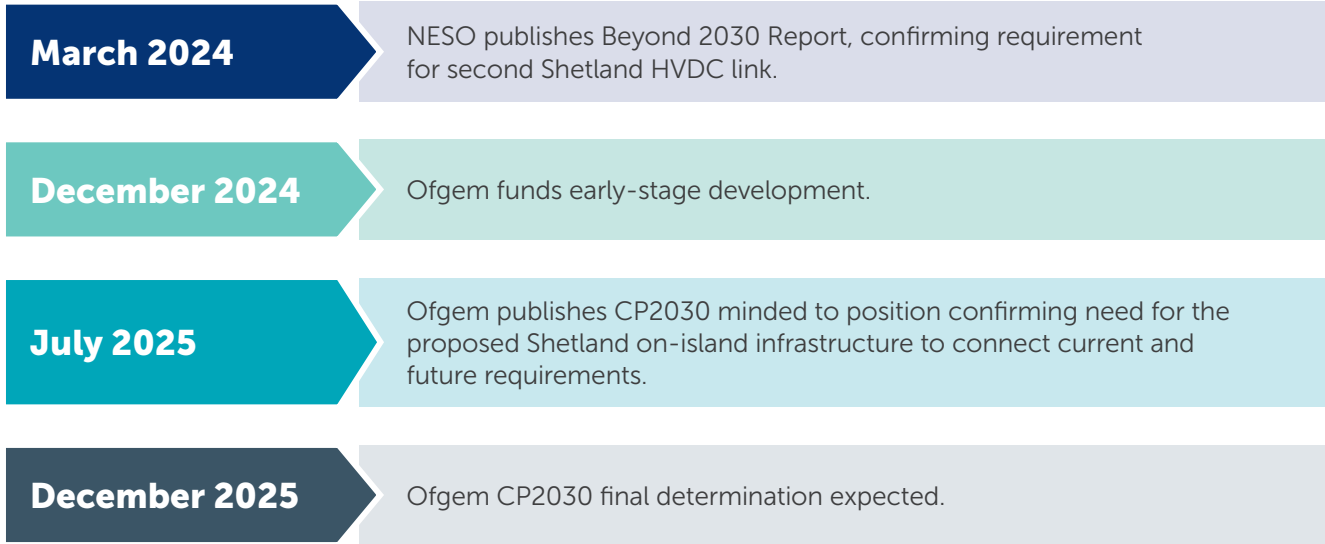
From National Plan to Local Action

NESO’s findings were based on a comprehensive assessment of how the electricity network must evolve to:

- meet net zero targets;
- manage increasing demand;
- support economic growth and
- maintain resilience.

Shetland was identified as a strategically important location, not because of any one single project, but due to its long-term potential and critical role in the future energy network.

In December 2024, Ofgem, the GB energy regulator, endorsed this position by approving funding for early-stage development works in Shetland. This sits alongside Ofgem’s assessment of NESO’s broader Clean Power 2030 (CP2030) recommendations, with a final determination expected in December 2025.



Why this matters

The Shetland Strategy proposes a technologically robust solution, that is coordinated across the region and is shaped by local engagement and insight. The strategy serves Shetland’s known energy needs as well as containing headroom for future growth. We have looked to minimise the amount of infrastructure to reduce the impact on communities and the environment.



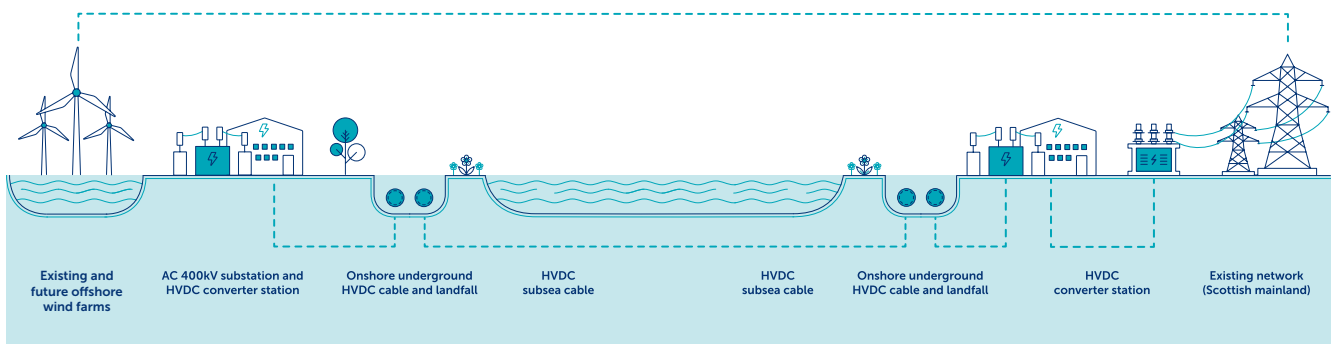
You can read
the NESO
Beyond 2030
report here

Shetland HVDC Link 2 project overview

Why is the project required?

The Shetland HVDC Link 2 is needed to provide a secure, long-term connection between Shetland and the GB (Great Britain) electricity network. It will enable new renewable generation, such as onshore and offshore wind farms, and support demand projects such as green hydrogen production. By reinforcing the existing Shetland HVDC Link 1, it also provides resilience for the islands' electricity supply.

The project will include the construction of new HVDC converter stations on Shetland and the Scottish mainland, together with associated substations and underground cables to connect them to the wider electricity transmission network. A subsea cable will link the two landfall points, carrying clean, renewable electricity over these longer distances efficiently and reliably.



In addition to the Subsea HVDC cable, the other key elements of the Shetland HVDC Link 2 project may include:

Northern Shetland:

- New HVDC converter station
- New AC 220kV substation
- New AC 400kV substation
- Underground cable and landfall

Scottish Mainland:

- New HVDC converter station
- Underground cable and landfall



Why HVDC?

High Voltage Direct Current (HVDC) technology offers the most efficient means of transmitting large amounts of power over long distances.

It helps minimise energy losses, reduce environmental footprint, and improve the stability of the wider electricity network. Using HVDC also ensures the new Shetland HVDC Link 2 is compatible with the first Shetland HVDC link and any other future subsea connections, providing a coordinated and future-proof solution.

Considerations during site and route selection

The process for selecting our proposed landfall and marine cable corridors:



Stage 1

Preliminary landfall option identification, focusing on identifying potential landfall locations meeting essential construction characteristics.



Stage 2

Constraints identification, identifying environmental, social, and technical constraints associated with each landfall.



Stage 3

Corridor Optioneering, identifying potential subsea cable corridors based on relative impacts on constraints identified in Stage 2.



Stage 4

Corridor Development and Selection, including a multi-disciplinary review of constraints and interactions between them to develop a suitable subsea cable corridor.

The Shetland HVDC Link 2 is at Stage 4



Our site selection process - offshore

The North Sea is a dynamic and complex environment, and therefore the site selection process needs to be well informed by a range of key environmental and technical constraints, in order to strike the right balance of technical feasibility, whilst protecting the marine environment, other sectors and other users of the sea. Provided below is a list of some of the key constraints which may influence development in a marine environment, and which will be considered in the site selection process for the project.

Environmental constraints

- **Cultural heritage** – The project will seek to avoid direct and indirect impacts on recorded heritage assets, such as charted wrecks.
- **Shipping and navigation** – The project will seek to avoid busy areas with a high density of shipping activity, to not impact their operations.
- **Commercial fishing** – The project will seek to engage with fisheries to manage and mitigate any impacts as best as possible.
- **Ecology and ornithology** – The project will seek to avoid wherever possible designated sites such as those designated for breeding birds, or marine mammals, which may be sensitive to installation activities.
- **Benthic ecology** – The project will seek to avoid areas of Annex I reef, including maerl beds and horse mussel beds. These habitats are protected by legislation and may be sensitive to installation activities.

Technical constraints

- **Bathymetry** – Both seabed slope and water depth may impact the feasibility of how infrastructure can be installed.
- **Seabed and landfall geology** – The type of bedrock may impact the technical feasibility of installing cable and hub e.g. ability to pile on the seabed.
- **Metoccean conditions** – Wave heights, wind speed and currents are considered as part of site selection, design and installation of the project.
- **Vessel access** – The project must ensure that water depths are sufficient and that there are no rocky outcrops that may impact the installation vessel access to the work site.
- **Third party assets** – The project will seek to minimise proximity to other third party assets, to minimise potential for disturbance to operations.

The project team uses key data sources which illustrate the above constraints, and applies them to a 'constraints model'. Once we have identified viable areas, they are taken forward for further evaluation and consultation, so we can better understand their use and sensitivity. As well as the constraints identified above, other environmental factors will be investigated including fish ecology, marine mammals and seascape and landscape.



What is a landfall?

Cable landfalls are the locations where our subsea cables 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 the installed ducts which are then buried, and the shoreline is reinstated.

Horizontal Directional Drill (HDD)

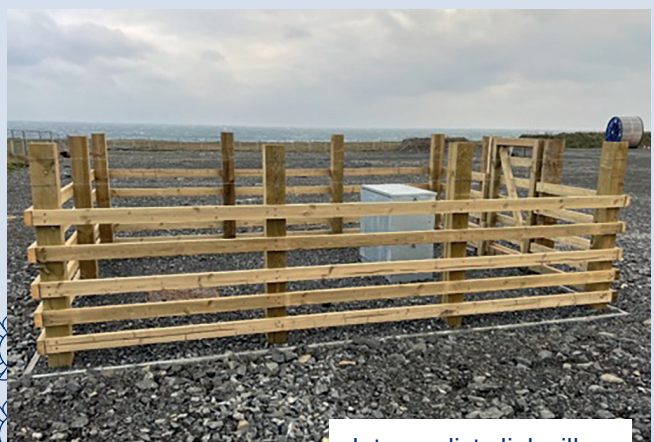
HDD is a type of trenchless method that can be used to drill and install ducts underground through the shoreline, providing an alternative method in areas of shallow bedrock or challenging geology.

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.



Open cut trench works



Intermediate link pillar

Landfall Assessment

When planning where a subsea cable comes ashore, several factors need to be considered. This involves input from engineering, environmental and community specialists to identify the optimal option. Key considerations include:

- Technical feasibility of bringing the cable to shore, including proximity to existing infrastructure.
- Environmental sensitivities and designated areas.
- Feedback from stakeholders and local communities.

This cross-disciplinary approach ensures that the landfall options taken forward for detailed design are robust, balanced and take account of local priorities.

Shetland landfall selection

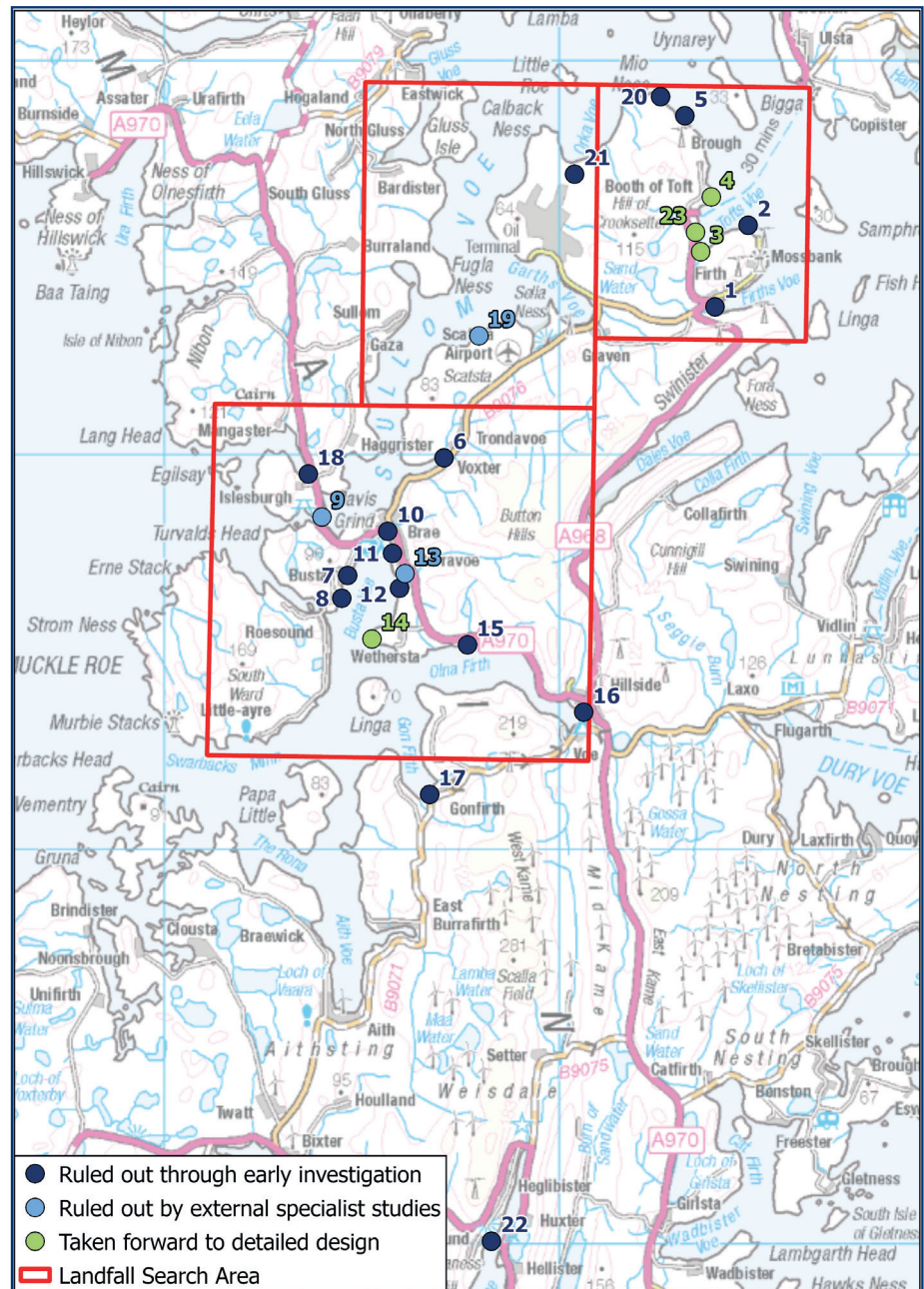
Through a desk-based assessment, we identified 23 sites in Shetland, as having the potential to be suitable for the landfall of the HVDC marine cable.

These were further analysed considering onshore and offshore engineering, community, consenting and environmental factors to reduce the landfall options further.

Our search area concentrated on the north of the Shetland Mainland, (as denoted by the red rectangles shown at our Public Consultation event in June), to account for the search area for the new HVDC Converter station site.

Site 22: Weisdale Voe was also initially included as an option due to the potential for co-location with the first Shetland HVDC link. However, this was ruled out at early investigation.

We also took on board feedback and comments received at the marine consultations in June 2025 and fed them into the assessment process.



Sites Longlisted:

- | | | | |
|---------------------------|-----------------------------------|--|---------------------------------|
| Site 1: Firths Voe | Site 7: Busta | Site 13: Houb of Burravoe | Site 19: Scatsta Airport |
| Site 2: Mossbank | Site 8: West St Magnus Bay | Site 14: Wethersta | Site 20: Mio Ness |
| Site 3: Grunnavoe | Site 9: Mavis Grind | Site 15: Olna | Site 21: Orka Voe |
| Site 4: Toft Ness | Site 10: Brae | Site 16: North Voe and West Voe | Site 22: Weisdale Voe |
| Site 5: Croo Taing | Site 11: Brae Hall | Site 17: Gonfirth | Site 23: Toft Camp |
| Site 6: Voxter | Site 12: North Houllands | Site 18: Mangaster | |

Potential Shetland landfall sites



Site 3: Grunnavoe

We have selected the Grunnavoe Landfall site to be taken through to the 'detailed design stage' because:

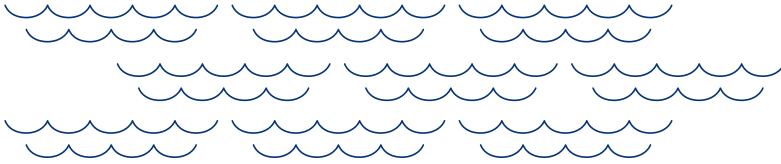
- The Horizontal Directional Drill is considered feasible.
- Short access to the nearby A969 road.
- Landfall site is set away from residential properties, thus minimising potential light and noise disturbance during the installation phase.
- Plenty of space for a drilling compound.
- No direct overlap with environmentally designated marine sites.
- However, the landfall site is situated within an area of static fishing grounds for crab and lobster creels and Buckie Pots.
- This landfall site is also located within 1km of the Ulsta - Toft ferry route.
- There is also the potential for a thick layer of soils over bedrock which would make the HDD more challenging.

Site 4: Toft Ness

We have selected the Toft Ness landfall site to be taken through to the 'detailed design stage' because:

- No direct overlap with any environmental designations however there is a Special Area of Conservation designated for harbour seals and otters within 1.5km of the site.
- The Horizontal Directional Drill (HDD) is considered feasible, with sufficient space for a drilling compound.
- However, we recognise that there are some nearby residential properties.
- The road to the landfall site is currently unsuitable for construction vehicles.
- The landfall site is located within 1km of the Toft to Ulsta ferry route.
- One Canmore feature (non-designated heritage asset) is located within the site.





Site 14: Wethersta

We have selected the Wethersta landfall site to be taken through to the 'detailed design stage' because:

- The Horizontal Directional Drill (HDD) is considered feasible, with plenty of space for a drilling compound.
- There are no environmental designations that overlap with this landfall site.
- There are no mapped surface water bodies within the site.
- However, we recognise that the site is located close to residential properties.
- It is likely that we will need to build a new haul road, over 1km in length, for construction vehicles.
- There are multiple aquaculture sites in Busta Voe, that the onward marine cable may need to interact with.
- There are two Canmore assets (non-designated heritage assets) within the site.

Site 23: Toft Camp

We have selected the Toft Camp landfall site to be taken through to the 'detailed design stage' because:

- The Horizontal Directional Drill (HDD) is considered feasible, with plenty of space for a drilling compound, which may utilise a 'brown field site'.
- Short road access to the A968 road.
- No direct overlap with any environmental designations.
- Short underground cable to the HVDC Converter station, if it located in a similar area.
- Closest residential properties are over 1km away from the proposed landfall site.
- However, we recognise that the onward marine routing would be in close proximity to the Toft to Ulsta ferry route.



Potential Shetland landfalls and marine approaches

There are two potential corridors that have been assessed from Shetland. These include the blue corridor into the Wethersta landfall and the red corridor into the Yell sound cluster of landfalls.

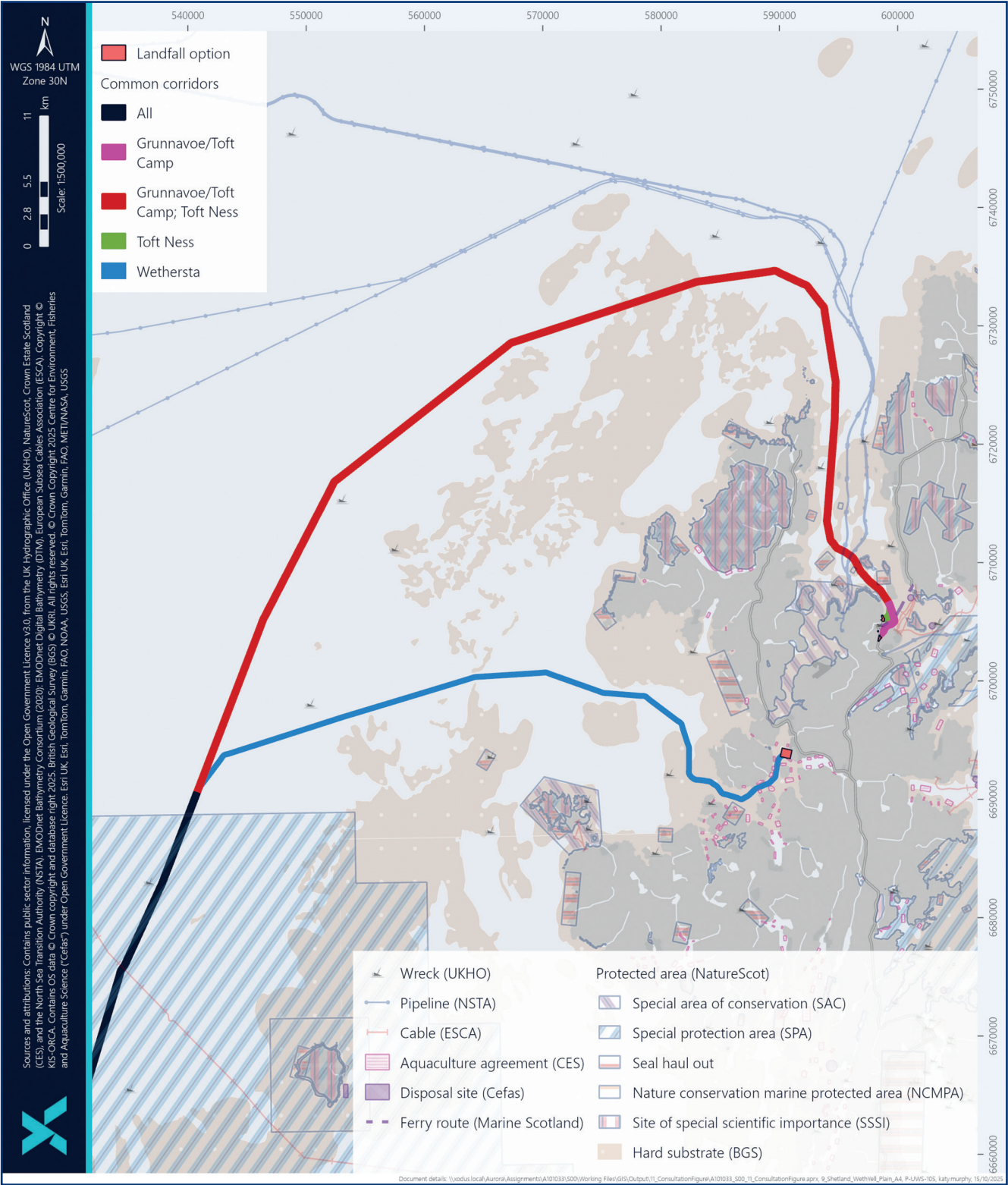
The red corridor that routes out from the Yell Sound north, then west around Shetland and subsequently routeing south to the common corridor (black) doesn't follow the coastline closely due to the avoidance of hard seabed features, therefore resulting in a longer route west before heading south, routing to optimise burial of the cable. Areas of hard substate and potential out/sub cropping bedrock are also identified in the nearshore approaches to all the Shetland landfall options and to the northwest of Shetland, as the Toft Ness and Grunnavoe/Toft Camp route options exit Yell Sound.

The blue corridor that landfalls at Wethersta also routes significantly west before heading south, to avoid hard substrate.

Ensuring a route that optimises burial will ensure that the cable will be well protected from 3rd party interactions such as with demersal fisheries or anchor drag, whilst reducing the requirement for additional external rock protection or other protection measures that may introduce additional environmental impacts and consenting risk to the project.

A route into the Yell Sound from the east was prioritised as the route was considered at time of assessment to be more constrained than to the west and north. The key constraint was the proximity to other infrastructure, including pipelines and telecommunication cables. Whilst also being constrained further by hard, rocky seabed features and spoil grounds reducing the space available for the Shetland HVDC Link 2 to route through significantly.





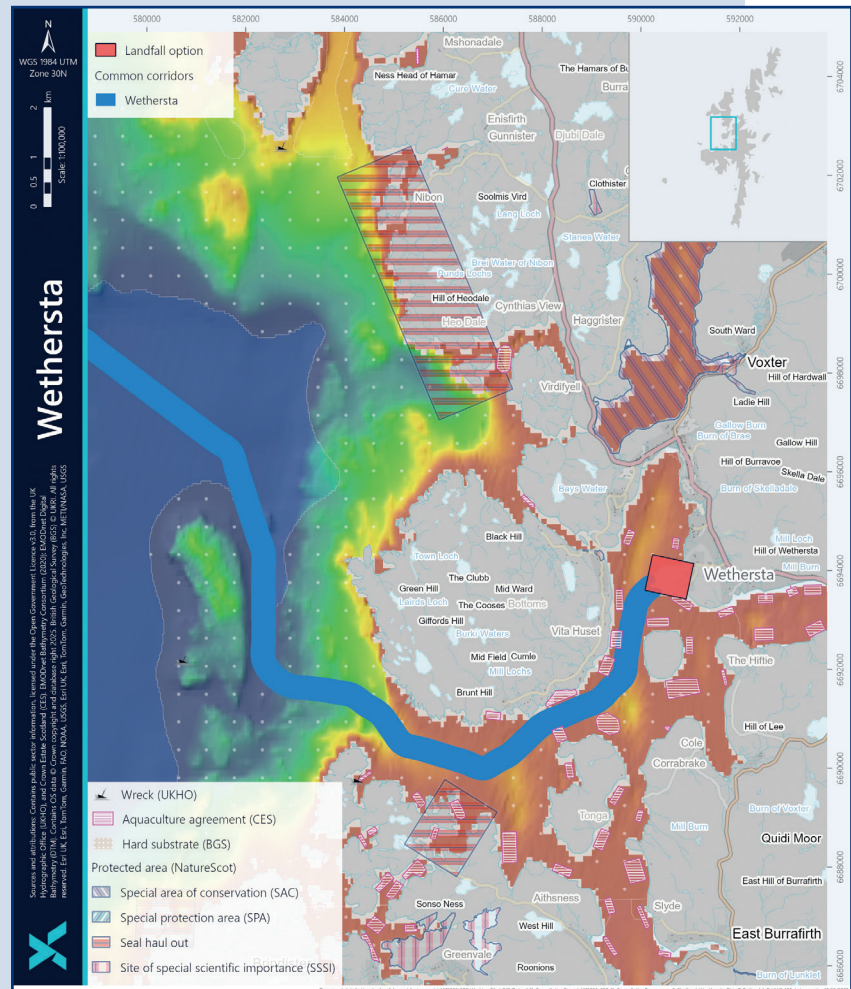
Potential Shetland landfalls and marine approaches

Wethersta

A key consideration for the Wethersta route is the close proximity with the 500m wide cable corridor to a number of shellfish and finfish aquaculture lease areas. Due to the bathymetry on the approach to the landfall, i.e., steep seabed slopes, the cables would need to be routed in close proximity to these aquaculture sites, although the cables themselves would remain outside the lease area.

Other notable considerations include the proximity (i.e. within 500 metres (m)) to the Uyea Sound protected seal haul out and the presence of commercial fishing activity at this landfall, in particular static gear fisheries (e.g., pots and traps by smaller vessels (<12m)).

Lastly, there is evidence of sensitive benthic habitats (horse mussel beds and Annex I reef (bedrock and/or stony reef) in the vicinity of the landfall, seabed surveys will be required to confirm the location and extent of these features, and detailed cable routing will aim to avoid them where practicable should this landfall be taken forward.



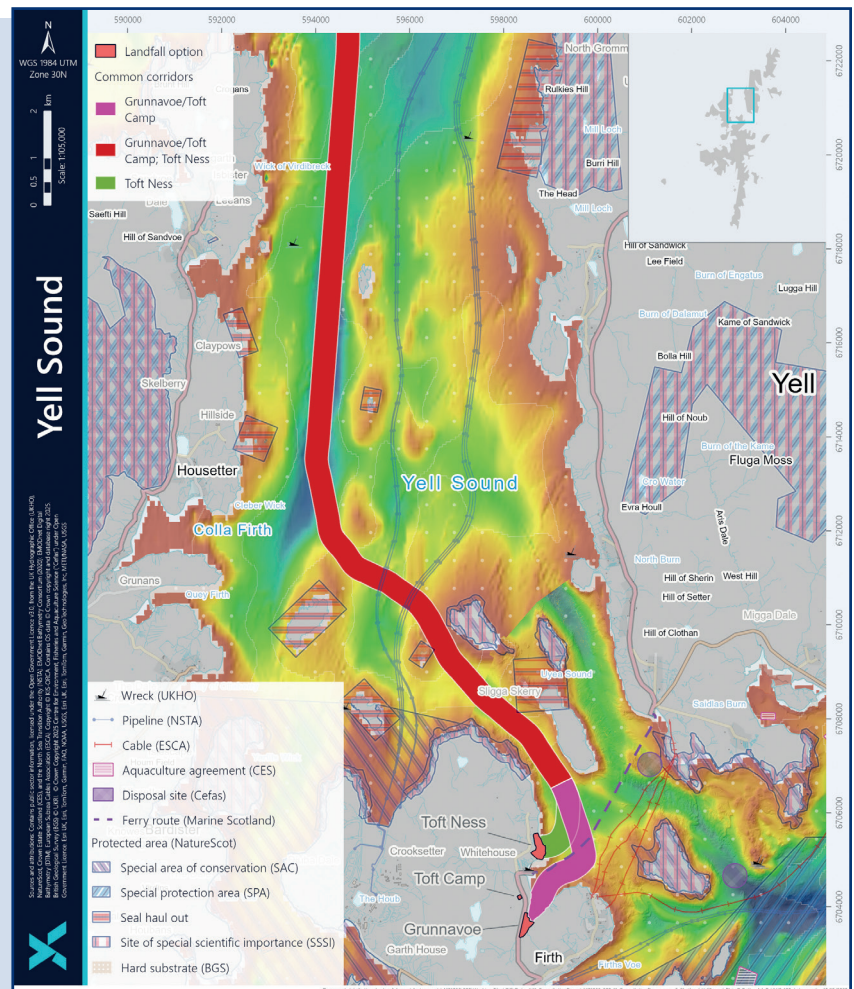
Yell Sound

The Yell sound is characterised by strong tidal currents, with charted tidal flows being between 4-6kt at peak times. Cable installation may require careful scheduling to avoid periods of peak tidal flow.

A key constraint for this landfall cluster is the overlap with the Toft - Ulsta ferry route, this will also require careful planning for cable installation in order to avoid disruption to the ferry service. Additionally, there is overlap with the Sullom Voe statutory harbour limit which will require approval from the harbour master. Therefore, engagement with the Shetland Islands Council will be required.

Another key constraint is the requirement for multiple, complex crossings with oil and gas pipelines in Yell Sound.

Other notable considerations include the overlap with two protected seal haul outs (Sligga Skerry & North End of Bigga and Tinga Skerry) and the Yell Sound Coast Special Area of Conservation (SAC), which is designated for harbour seal and Eurasian otter.



Commercial fishing activity is also a key consideration for the Yell Sound landfalls, with an emphasis on the presence of dredges towed by smaller vessels (<12m), and the landfalls are within an area of static fishing grounds for crab and lobster creels and Buckie pots.

Summary

The two distinct routes identified from the landfalls that were taken through to the corridor routing exercise pose very different considerations and constraints.

Most notably for the red route out from the Yell Sound adds significant additional length to the cable, and additional crossings and technically difficult conditions for cable lay, whereas, the corridor out from Wethersta has a shorter route, but has the potential to interact with a number of active aquaculture farms within close proximity and the additional risks for both the cable and the aquaculture farms.

Scotland Mainland landfall selection

Through a desk based exercise, we initially identified 12 sites in Scotland Mainland, as having the potential to be suitable for a landfall of the HVDC marine cable. Taking into consideration engineering, community, consenting and environmental factors, these were further refined to Sandend, Boyne Bay and Boyndie Bay to take forward to the marine routing exercise.

Our search area concentrated on the Moray and Aberdeenshire coast as denoted by the red rectangle on the map, shown at our public consultation event in June 2025.

Feedback and discussions had at the consultation events have fed into the considerations for landfall selection.

An initial appraisal was conducted of the 12 landfall sites, through desk based studies and site visits. This resulted in discounting five landfall sites. There was a variety of engineering, community and environmental reasons for discounting sites including:

- HDD feasibility.
- Limited space to construct a drilling compound.
- Lack of road access.
- Unsuitable ground conditions.
- Close proximity to residential properties and local amenities.
- Close proximity to environmental designations.
- Proximity to military firing practice areas.
- Proximity to 3rd party assets.

We appointed external environmental specialists (both marine and terrestrial focused) and an engineering company who specialise in Horizontal Directional Drills (HDD). Each specialist comprehensively studied each of the seven landfall sites. As a result of these studies, landfall areas were refined further and a further four sites were ruled out.

Three sites have been shortlisted and have been taken forward to 'detailed design'. We go into more detail on the following pages.

Please note: The site referred to in this document as Boyndie Bay is also known as Inverboyndie. For consistency, the name Boyndie Bay has been used throughout.





Potential Scotland mainland landfall sites



Site 6: Sandend

We have selected the Sandend Landfall site to be taken through to the 'detailed design stage' because:

- The Horizontal Directional Drill (HDD) is considered feasible.
- Space for a drilling compound.
- However the landfall overlaps with Moray Firth Special Protected Area (SPA) and the Cullen to Stake Ness coast Site of Special Scientific interest (SSSI) designated for geological and biological features.
- Landfall site is located 1km from the Southern trench NCMPA.
- A temporary haul road would need to be constructed from the B9139 road.
- Scheduled monuments within the site.
- Offshore wind farm cables make landfall to the east of Sandend, therefore consultation with asset owners is required.
- We recognise that Sandend beach is a popular with the community and tourists, therefore our search area for a landfall site is focused on the cliffs to the east, rather than the beach.



Site 9: Boyne Bay

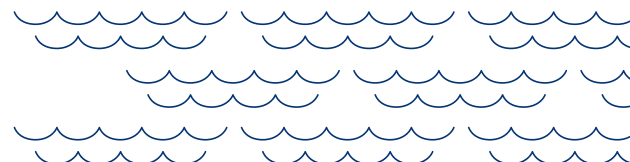
We have selected the Boyne Bay Landfall site to be taken through to the 'detailed design stage because:

- The Horizontal Directional Drill (HDD) is considered feasible.
- Space for a drilling compound.
- There are few residential properties close by.
- However a haul road would need to be constructed from the B9139 road, during the construction works.
- The site overlaps with the Cullen to Stake Ness Coast Site of Special Scientific interest (SSSI), designated for geological and biological features.
- Scheduled monuments within the site.
- Landfall is located within 1km of the Southern trench NCMPA.

Site 10: Boyndie Bay

We have selected the Boyndie Bay Landfall site to be taken through to the 'detailed design stage because:

- The Horizontal Directional Drill (HDD) is considered feasible.
- However a haul road would need to be constructed from the B9038 road, this would be more technically challenging due to the steep embankment.
- There are nearby properties and a caravan park, so noise mitigation measures would be needed to reduce disruption during the construction phase.
- A public footpath runs in front of the site.
- The site overlaps with a Local Nature Conservation site and a Site of Scientific Interest (SSSI).
- Landfall is located within 1km of the Southern Trench NCMPA.
- Offshore wind farm cables and a telecommunication cable make landfall at Boyndie Bay, therefore consultation with asset owners is required.



Potential Scotland mainland landfalls and marine approaches

Sandend

A key marine constraint for the Sandend landfall is that the Moray West Offshore Wind Farm export cables make landfall at the cliffs in the eastern extent of the search area.

Therefore, there may be technical constraints if the Shetland HVDC link 2 cable needs to align in close proximity with the Moray West cable infrastructure at landfall. Another key constraint is the presence of high recreational activity (e.g., surfing) within the bay, with residential properties located immediately adjacent to the bay, highlighting a densely populated area in comparison to the other landfalls.

Other notable constraints include the overlap with the Moray Firth Special Protection Area (SPA), designated for a number of overwintering birds, and overlap with the Cullen to Stake Ness Coast Site of Special Scientific Interest (SSSI), designated for terrestrial features. It should be noted that the terrestrial features of the Cullen to Stake Ness Coast SSSI will not be affected by the marine cable installation activities.

Lastly, there is high activity for commercial fisheries, in particular larger vessels (>15m) operating demersal gear and dredges on the approach to Sandend, as well as notable presence of smaller vessels (<12m) deploying pots and traps and rods and lines along the Moray coast. Alongside the potential Annex I reef is present along the Moray coast, although this is expected to be avoidable through the use of Horizontal Directional Drilling (HDD).

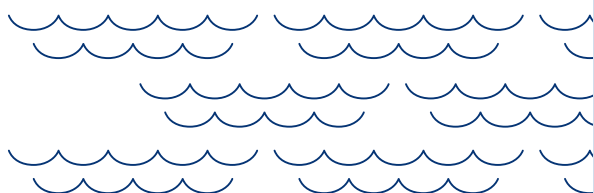


Boyne and Boyndie Bay

Similar constraints to Sandend were identified for the cable route approaching the Boyne Bay and Boyndie Bay landfall. Boyndie Bay has 3rd party assets landfalling within close proximity, that include the export cables from Moray East Offshore Wind Farm, and the SHEFA 2 telecommunications cable.

There is direct overlap with the Cullen to Stake Ness Coast SSSI (Boyne Bay) and Whitehills to Melrose Coast SSSI (Boyndie Bay). As described for Sandend above, there is high commercial fisheries activity for larger vessels (>15m) in length operating demersal gear and dredges, as well as notable presence of smaller vessels (<12m) deploying pots and traps and rods and lines along the Moray coast.

Finally, potential Annex I reef is present along the Moray coast, although this is expected to be avoidable through the use of HDD.





Marine corridor optioneering

Nine potential marine routes for the Shetland HVDC Link 2 project have been identified between the Shetland landfalls (Grunnavoe/Toft Camp, Toft Ness, Wethersta) and Scottish mainland landfalls (Sandend, Boyne Bay, Boyndie Bay). The indicative route options have been optimised to avoid technical and environmental constraints where possible, informed by a spatial Multi Criteria Analysis model.

At SSEN Transmission we aim to ensure that the routeing of our subsea cables:

- Has optimal seabed conditions for burial of the cables;
- Avoids and minimises interactions with other assets, for example cable/pipeline crossings;
- Avoids and minimises interactions with other users of the sea, for example shipping and navigation and commercial fisheries;
- Avoids and minimises interactions with Marine Protected Areas (MPAs), especially those designated for seabed features or other species sensitive to cable installation and operational activities;
- Is the shortest route from A to B;
- Meets legislative and marine planning requirements.

Constraints for the Common Offshore Cable Route Corridors

While the route options have been developed to maximise potential cable burial success, by avoiding areas of seabed and features which are anticipated to pose a challenge to trenching of the cable (i.e., areas of hard substrate, bedrock and mobile bedforms), some features are unavoidable. Areas of hard substrate are prevalent around Shetland, specifically to the west of Shetland, and along the route as it passes south past Foula, east of the Orkney Islands and south of Fair Isle.

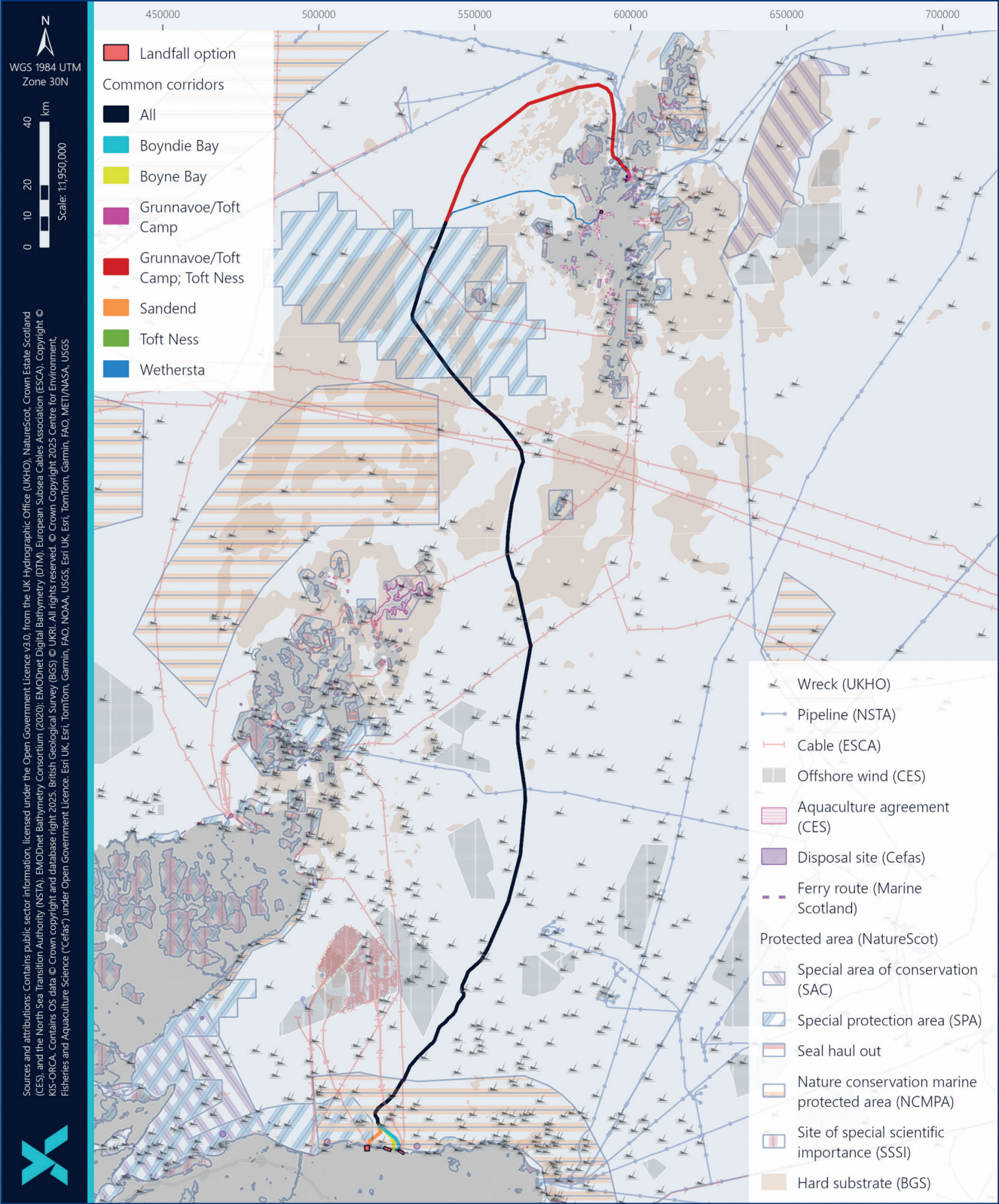
The corridor presented routes to avoid where possible the majority of the mapped hard substrate. There are also localised areas sandwaves and potentially mobile bedforms identified within the route option corridors.

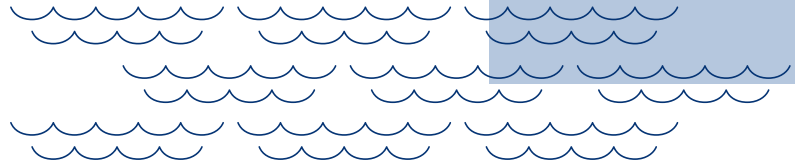
Geophysical and geotechnical surveys will be conducted to confirm the extent and nature of these features, which will be used to inform detailed route engineering and cable installation methodologies. A notable consideration for all indicative route options is the overlap with designated sites, i.e., MPAs, including the Southern Trench Nature Conservation MPA (NCMPA) on the approach to the Scottish mainland, designated for various features including minke whale and burrowed mud; overlap with the Seas off Foula SPA on the approach to the Shetland mainland, designated for a number of breeding seabirds; and proximity (i.e., within 50 kilometres (km)) of the Moray Firth SAC, designated for features including bottlenose dolphin. The Southern Trench NCMPA is unavoidable, however the corridor identified avoids the trench feature of the NCMPA and mitigations will be in place to avoid impacts to marine mammals including minke whale.

Areas of commercial fishing activity have been identified within the offshore route corridors, and while routeing has sought to minimise overlap with commercial fishing grounds, these features are largely unavoidable given their extent. Moderate to high demersal trawling activity is evident throughout the offshore routes, increasing to high intensities on approach to the Scottish mainland landfalls. Scallop dredging intensity is low to moderate within the offshore cable routes, with an area of higher intensity identified on the approach to the Scottish mainland landfalls. Offshore static gear fishing activity is generally low throughout the cable corridors, with localised areas of higher activity identified to the west of Shetland, and the east of the Orkney Islands.

In terms of existing infrastructure, there are a number of crossings with subsea cables (telecommunications and power cables) throughout the route, including multiple telecommunications cables (e.g., the Shefa 'Shefa 2', Arelion 'Tat14', Aquacomms 'Havfrue', Colt 'Atlantic Crossing 1', BT 'R100') and SSEN Transmission's Shetland HVDC Link cables. There is also a crossing with the Moray East Offshore Wind Farm export cables on the approach to the Scottish mainland landfalls. All route options will overlap with the Piper B 30" oil export pipeline. There are also crossings of the Kirkwall (Hatston) - Lerwick (Holmsgarth) ferry route at and the Aberdeen - Kirkwall (Hatston) ferry route; however, these are open water crossings and therefore do not represent a significant consenting risk.

Routeing also avoids known wrecks and Scotwind lease areas.





Marine survey

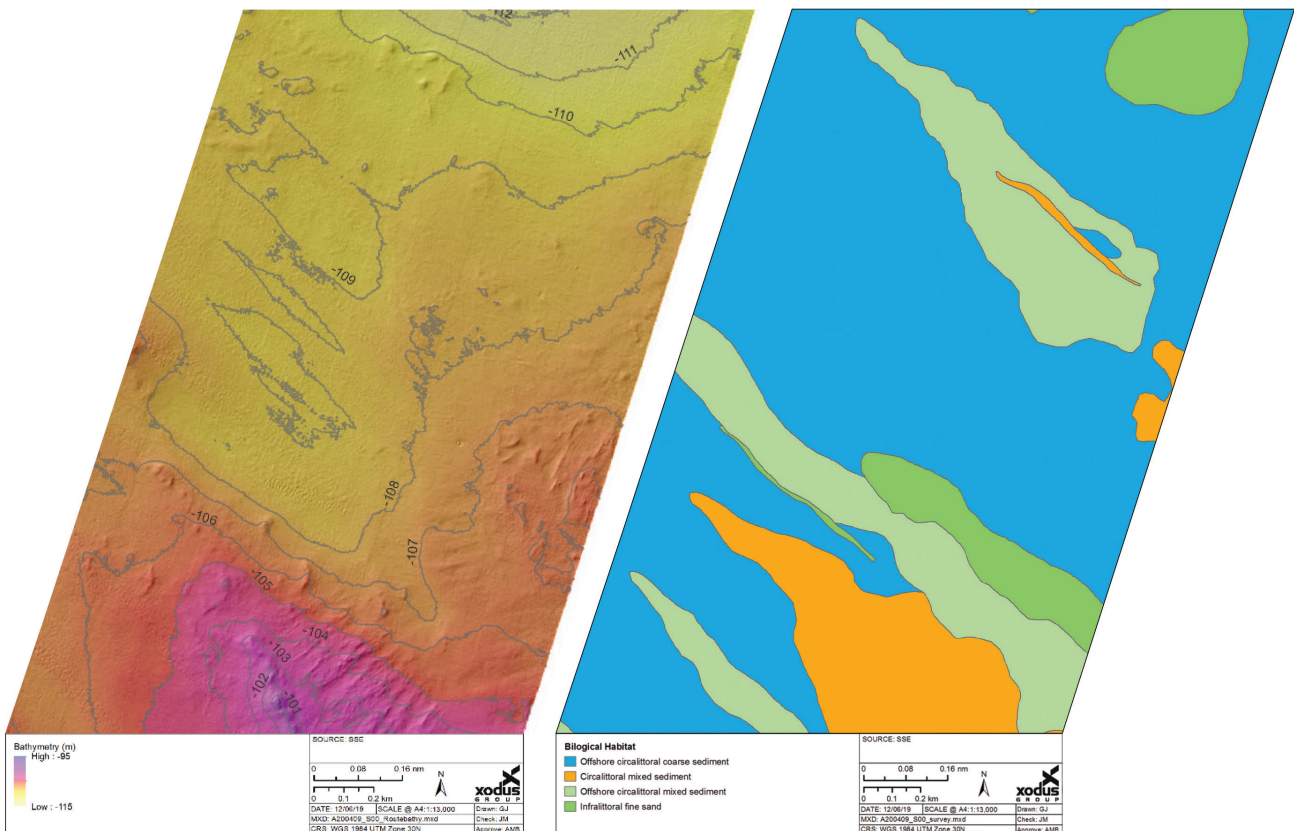
Subsea cable corridor options will be developed and assessed this year, using our understanding of the seabed, metocean conditions and the incorporation of stakeholder and community feedback.

The first marine survey campaigns are currently scheduled for 2026, whereby detailed information on bathymetry, seabed sediments and biological features and wrecks will be collected. Our marine offshore and nearshore survey operations include the following:

1. Geophysical data acquisition

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

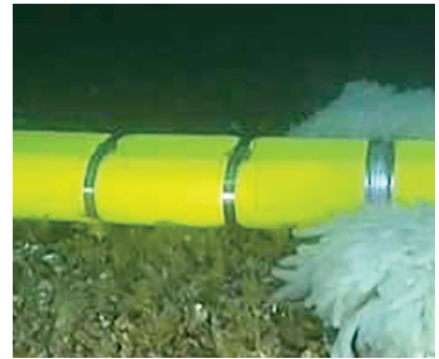
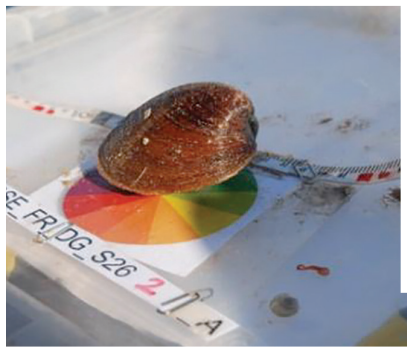
Instruments used: Multibeam Echo Sounder (MBES), Side Scan Sonar (SSS), Sub-bottom Profiler (SBP) and Magnetometer (offshore and nearshore).



2. 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.

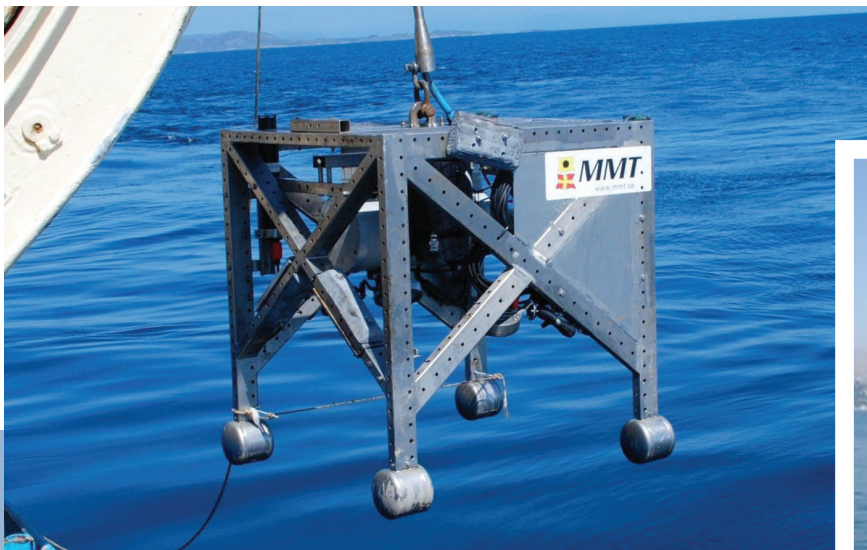
Instruments used: grab sampler and drop-down camera.



3. 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.

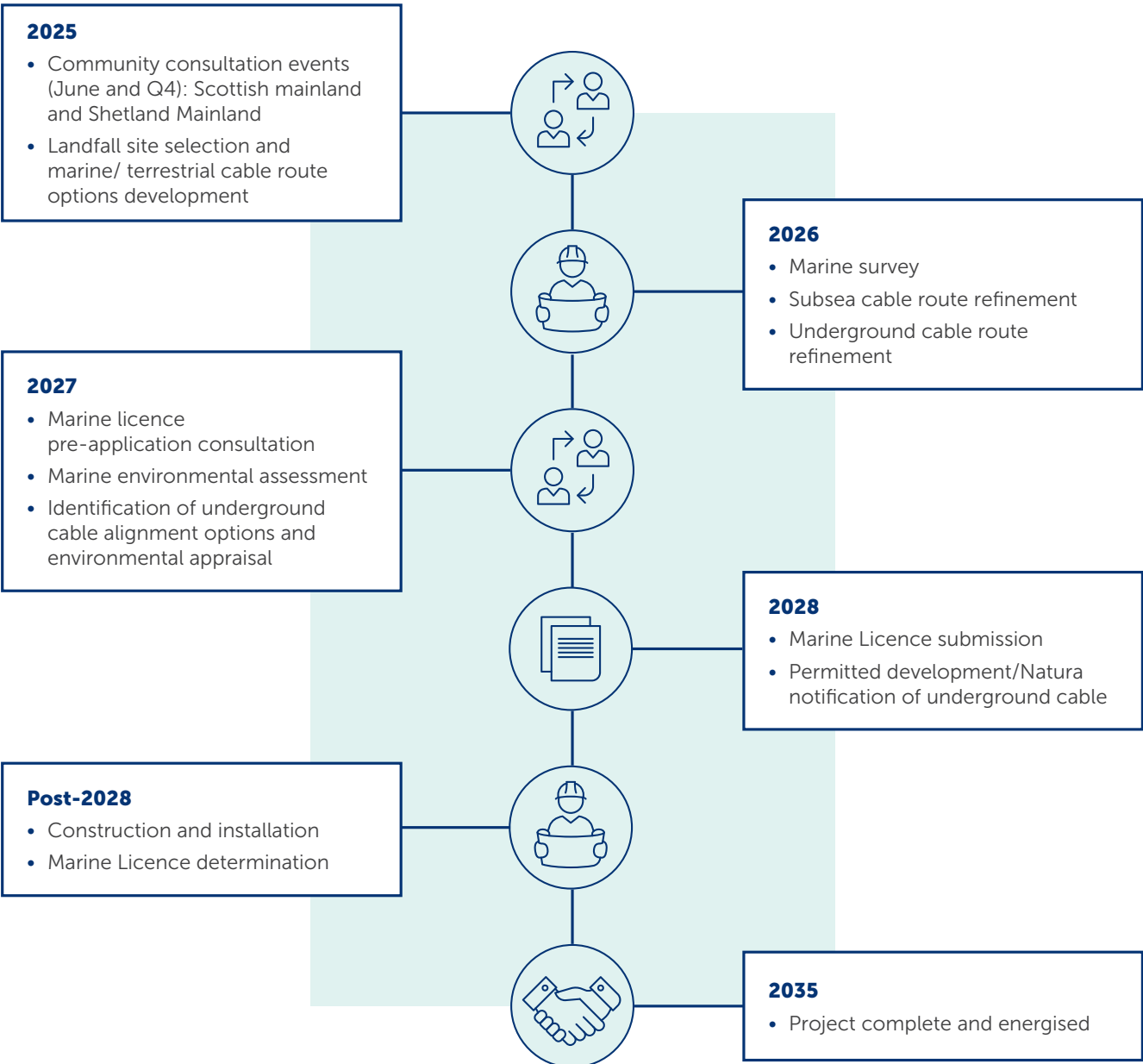
Instruments used: Vibrocorer and Cone Penetrometer Testing (CPT).



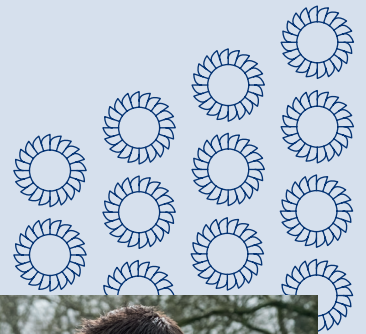
Project development next steps

Following this consultation, we will collate feedback and feed it into our analysis of the marine routes. The next step is identifying an optimal route and landfall that will be taken forward to survey. Marine survey is planned to begin Q1 2026.

The timeline below sets out the key milestones for the project. Note the dates are indicative and are subject to change.



Lasting legacy



SSEN Transmission are committed to leaving a lasting, positive legacy within the communities we operate in. To us, this means going beyond the delivery of the infrastructure.

In Shetland, this includes supporting local initiatives through our Community Benefit funds, getting involved in volunteering and outreach efforts and working closely with local groups to understand where support is most needed.

Housing

Through our housing strategy we hope to accelerate the supply of affordable housing, because we are seeking to leave a positive legacy whilst housing our workers.

Our approach is multi-faceted, and includes looking at options to support permanent housing, the redevelopment of existing properties that require refurbishment, assessing use of underutilised, off season, hotel and rental accommodation, potential use of empty homes, potential use of existing short term lets who would wish to revert to long term rented accommodation, and temporary accommodation village options.

We have worked with the Council from the very start of our engagement, on a long list of accommodation options to ensure that this helps meet the aspirations of Shetland, and this work continues.

Economy

Through the first HVDC link we have invested tens of millions of pounds into Shetland's economy.

This included hundreds of jobs and local business opportunities. Going forward, we intend to work with our supply chain to further increase the number of local jobs and business opportunities on Shetland.

Skills

We will be taking a co-ordinated approach across all our supply chain to enable training and identify opportunities for young people and school leavers.

Our contractors' obligations will include how they can increase opportunities for local people either through training or jobs.



Our Supply Chain

At every stage of development, we carry out a competitive tender process to appoint contractors who align with our commitment to delivering positive local outcomes. The companies that we work with are expected to contribute meaningfully to the communities we serve, including here in Shetland.

Our works can bring a wide range of benefits to the local area such as employment opportunities, apprenticeships and training, as well as working with local schools and colleges to inspire the next generation.

We actively promote and encourage the use of local suppliers, services and materials to help ensure that the benefits of our projects are felt within Shetland's economy.



Next steps

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

The feedback period

Following our event, a consultation period will open until **Wednesday 10th December 2025**.

How to provide feedback

You can complete our feedback form online, using the feedback form at the back of this booklet or submit feedback in writing or email. The feedback will be analysed by the project team and a report on consultation produced and published on our website detailing our response to your feedback.

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.

What we're seeking views on

Please share any feedback with us regarding the potential landfalls and marine routes being shown today. Especially any additional data or information that can help inform the project going forward.



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



SSEN Transmission, Stewart Building,
Lerwick, Shetland, ZE1 0LL



shetlandengagement@sse.com

Additional information:



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

ssen-transmission.co.uk/shetland2

You can also follow us on social media:



ssentransmission



@SSETransmission

Feedback

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

☐

Yes

☐

No

☐

Unsure

2. Please provide any site specific information and feedback for each of the landfalls currently in consideration below:

Shetland landfalls:

Wethersta

Yell Sound - Toft Ness, Toft Camp/Grunnavoe

Mainland landfalls:

Sandend

Boyne Bay

Boyndie Bay



3. Please provide comment and any additional information regarding the marine route presented within this booklet for the Shetland HVDC Link 2 project.

4. Do you fish in the area included for consideration for the cable? Please include details of the type of fishing you do. i.e. mobile or static; and please provide an estimate of how often you fish in the area and the time of year.

Full name:

Address:

Telephone:

Email:

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.

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

If you would like to be kept informed of progress on the projects, 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, Stewart Building, Lerwick, Shetland, ZE1 0LL **Email:** shetlandengagement@sse.com

Online: ssen-transmission.co.uk/shetland2

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

ssen-transmission.co.uk/shetland2

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

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

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

