Scottish & Southern Electricity Networks
TRANSMISSION

The story so far

April 2023

We introduced the project in April 2023, our voluntary consultations gave us valuable feedback on our initial site selection.

Jan 2024

Initial "Creed North" site is discontinued from evaluation and the new Lewis Hub site design starts to be developed.

Sept 2024

The first Pre-Application Consultation event was held in Lewis, to confirm the Arnish Moor site is the preferred site, and present the design progress to date.

Jan 2025

Anticipated date for the submission of the Planning Application for the Lewis Hub site.

Help shape our plans

The work we have planned is significant and has the potential to deliver massive benefits in your community, Scotland, and beyond. Yet we know that achieving our goals will require a lot of work that will impact your lives. That's why we want to work with you every step of the way throughout the planning and delivery stages of these essential and ambitious works.

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.

Throughout the consultation, we'll present our approach to developing the project, including changes made since we last consulted with you. We will also provide some visualisations and maps to show you where everything will be located and to allow you to see what the proposed substation will look like. These will also be available to view

What we are seeking views on

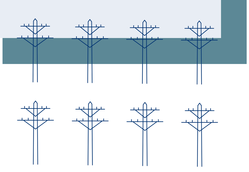
We want you to share your thoughts and opinions on our plans, where you think we can make improvements, your concerns about the impact of our work, and what you think of the refinements or changes we've made.

This event is the second of two planned, sequential, public consultation events following the submission of the Proposal of Application Notice (PAN). The PAN submission triggered the initial formal Town and Country Planning (major application) consultation process for this site, including the 12-week (minimum) pre-application consultation period.

Following the initial consultation event, the project team has sought to ensure that comments or concerns raised have informed, where possible, the primary considerations for the designs as they have progressed. This includes substation layout design, landscaping enhancement and screening. Outside of the formal consultation periods and events, we have continued to provide a dedicated webpage for the projects and liaise with a wide range of stakeholders to help inform the development and design.

We are therefore holding this feedback event to present our proposed substation design, which has been informed by stakeholder feedback, and have set out our responses to feedback received to date.

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 to work with you to ensure that the energy infrastructure we build will be the best it can possibly be.



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Project overview

We're leading some exciting projects to power change in the UK and Scotland. To support the delivery of 2030 offshore wind targets set by the UK and Scottish Governments, and to power local communities, we need to upgrade our existing network. In some key areas, we need to develop entirely new infrastructure.

Lewis Hub - AC substation and HVDC converter station

The purpose of this booklet and public engagement event is to provide an update on the Lewis Hub.

The proposed new Lewis Hub is a strategic development which is required on the Western Isles to deliver a HVDC Converter Station and 400kV AC substation in a single location.

Providing this 1.8GW HVDC connection will allow large volumes of electricity generated by commercial and community-owned schemes to access the main GB electricity market, which local developers and Comhairle nan Eilean Siar have been calling for since 2005.

Project elements include:

- Lewis Hub High Voltage Direct Current (HVDC) converter station and an Alternating Current (AC) substation located near Stornoway.
- Circa 4km of underground HVDC cable from the new HVDC converter station and AC substation to the landfall at Arnish Point, Stornoway.
- 81km of HVDC subsea cable from Arnish Point, Stornoway to Dundonnell on the Scottish mainland. Circa 80km of onshore underground HVDC cable from Dundonnell to a mainland HVDC converter station near Beauly.
- A mainland HVDC converter station near Beauly.

A joint solution

Following extensive studies and assessments of alternative sites it was concluded that the optimum solution was to locate both new installations on a single larger site rather than two separate sites.

The advantages are the avoidance of lengthy AC (Alternating Current) connecting cables and reduced visual impact from co-locating this new infrastructure in one location.

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Lewis Hub

Lewis Hub - DC converter station

What does a DC converter station do?

Converter stations change electricity from alternating current (AC) to direct current (DC), or vice versa. Alternating current is used in households, whereas direct current is used to efficiently transport electricity over long distances, such as via subsea cables, with fewer electrical losses.

HVDC project elements

The converter station has two poles this is reflected in its mirror image U-shaped configuration. On each north and south side of the building AC current passes through an AC Filter Hall and then into a DC reactor Hall before progressing into the DC Valves which complete the process of turning the current from AC into DC. In addition there are smaller ancillary and support buildings adjacent to the main building.

Lewis Hub - AC substation

What does the AC substation do?

The AC substation will connect the HVDC Link to the mainland and the AC network on Lewis facilitating the new proposed wind farm generation. AC Substations manage electricity flows within the network, which can include connection and disconnection of circuits to direct the flow, transform voltages to higher or lower ratings, manage the frequency of the electricity and increase efficiency and reliability of the power supply.

AC project elements

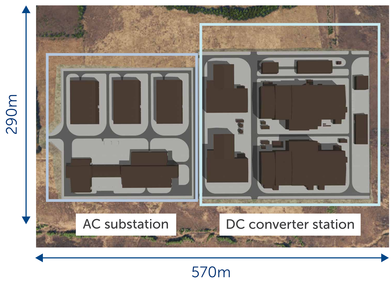
The AC equipment is housed internally within separate buildings for the air insulated and gas insulated switchgear and transformers.

The buildings range in height from 12m to 20m. With the three transformer halls to the North the tallest at 20m to the apex of the pitch.

Building layout and materials

The permanent Lewis Hub buildings will house all the HVDC and AC equipment within large metal cladded, climate-controlled buildings. The buildings are likely to be rectangular in plan, consisting of suitably coloured steel cladding and pitched roofs. The proposed main converter buildings are to be approximately 27.5m in height. This is due to the clearance distance required between the high voltage equipment and the building structure.

Thanks to design optimisation from our equipment suppliers and building engineers, we have been able to reduce the overall size of the DC platform by around 10%.



In addition to the primary Hubbuildings the permanent infrastructure will include:

- 4km Underground cable from the Converter Station to the subsea cable landfall at Arnish Point.
- Access from the A859 and Arnish Road.
- Security fencing (note: the site is a dark sky site and lighting will only activate in an emergency situation or working hours).
- Permanent site drainage and SUDS ponds.
- Visual Mitigations, landscaping/bunding/ screening/planting.

Construction works and activities at the site, are anticipated to include:

- Early site set-up to clear the site and form level platform.
- Peatland restoration and/or reinstatement sites.
- Temporary construction compounds and laydown areas.
- Temporary site drainage.
- Delivery of plant, components and materials.
- Inspection, testing, and commissioning.

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The substation site

What else will the development consist of?

Drainage

Drainage arrangements as part of the substation works will extend outwith the station platform outline and will be included in the planning application. This is subject to detailed design with specialists and approval by statutory bodies but could include a drainage system of retaining ponds and drainage lines that will eventually outfall to the watercourses to the East of the site.

Temporary compounds

Temporary construction compounds and laydown areas will be located in the vicinity of the substation to support the construction phase. Additional temporary construction compound and laydown areas, if needed, will be identified by the construction contractor prior to commencement of works. These areas will be subject to landscape and peat reinstatement post construction.

Access track upgrades

The site utilise two access tracks that will eventually form the permanent access points to the site. One from the A859 and one from the Arnish Road. These along with other potential Public Road Improvements will be included within the planning application.

Landscaping and screening

A Landscape Strategy will be prepared to support the planning application and inform the landscaping and screening for the site. Indicative landscaping and screening are illustrated in drawings that support this consultation process.

Connections

There are currently three 3rd party developers that will require substation infrastructure close to Lewis Hub. Stornoway Wind Farm has a proposed substation North of Marybank and is part of their approved planning application. Spiorad na Mara Offshore Wind Farm and Talisk Offshore Wind Farm are currently evaluating potential sites to position their substations. These, like our project, will have to go through a formal planning process. The final proportion of all connections circuits into the Lewis Hub will be underground cables having transitioned from overhead lines in and around the area. This is to avoid a number of overhead lines converging on the Lewis Hub. The current overhead lines planned near to the Lewis Hub will all be low profile design, like infrastructure already existing on the Island.

Lighting

During construction lighting will be managed by the construction contractor. Once operational it is anticipated that the site will run on a dark site basis. An operational lighting strategy will be prepared during the project refinement phase.

Trees and re-planting

There are some areas of planting and trees within the site boundary, although this has failed in places. Wherever possible we will try and retain those trees present within the site. We are looking to try and plant some new trees to provide some additional visual screening, particularly along the A859, to the west of the proposed operational area.

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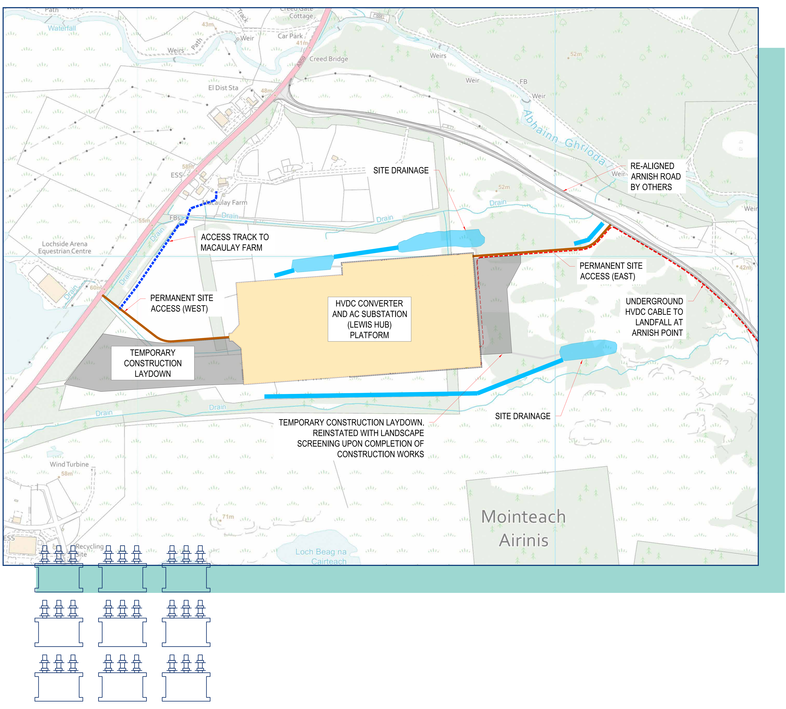
Proposed layout



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Feedback

Following submission of the PAN in August 2024, the first of two pre-application consultation events were held at the Cabarfeidh Hotel on September 5th 2024. There were a total of 60 attendees.

During the 8-week feedback period which closed on 17th October initially, but has been extended to the 28th November, a number of varied responses were received specific to this project. Many of the responses requested further information on the design, visual and landscape impacts, trees and the environment, traffic volumes and transport assessments. Whilst this feedback is acknowledged, only tangible, direct feedback specific to the development of the proposals is summarised and responded to within the following table.

Some of the responses posed general questions covered in our Frequently Asked Questions (FAQ) page and additional handouts such as project need, sustainability considerations and compensation. More information regarding these topics and other FAQs can be accessed at: **ssen-transmission.co.uk/2030faqs**

We have included both event feedback and statutory stakeholder feedback through the PAN and pre-application process, as well as design feedback, within the next four banners.

Event feedback	Response
Pre-application Notice (PAN) boundary map Concern from residents over the use of the Creed North site and potential pollution of the Creed River.	The PAN Boundary Map issued in September 2024 was an indicative extent of total temporary and permanent land requirements at that stage of project development. These initial plans tend to be larger than the final requirements to allow for the unknowns at the early project stage and to prevent the requirement to re-start the planning timeline in the event that an increase be required at a later date. Since our September events the project team has been refining the permanent and temporary land requirements in discussion with landowners. This will be further reviewed as the project progresses to planning submission in early 2025. We intend to propose some peat restoration work at the Creed North site, in areas of poorer bog habitat. Methodology for this is still in development but will be included in an outline peat management plan, which will form part of our planning application for this development. In addition, the project Red Line Boundary was moved approximately 50m from the Creed River to help create an additional buffer zone with the sensitive Habitat of the river.
Construction and Operational Noise and Lighting on site Concern raised specifically around disruption on the castle grounds throughout the process.	Construction and operational noise impacts will be assessed fully as part of the EIA, and this document will also recommend mitigation measures, to reduce the impact of any construction and operational noise, particularly for the closest properties. During Construction the site will be illuminated during operational hours and some specific locations after hours as well in order to ensure the safety of the equipment and personnel Post Construction. Substations are not generally illuminated. Floodlights would be installed but would only be used in the event of a fault during the hours of darkness; during the over-run of planned works; or when sensor activated as security lighting for night-time access. The access roads would not be lit under normal operation. The perimeter fence would use infrared lighting (this would only switch to white light if the fence alarm were activated to allow night-time cameras to work better). A light would also be provided permanently at access gates.

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Feedback

Event feedback	Response
Usage of Sulphur Hexaflouride (SF6) Concerns about the usage of SF6 at the Lewis Hub site.	In August 2020, SSEN Transmission announced ambitious plans to reduce its own emissions in line with what is required to meet net zero emissions, becoming the world's first electricity networks company to receive external accreditation for a science-based target consistent with a 1.5°C global warming pathway. As part of this commitment, SSEN Transmission is focused in installing ground-breaking, innovative net zero technology across its network, with a particular focus on SF6-free technologies. SSEN Transmission actively contributes to various national and international industry groups such as CIGRE and the ENA to help support the use of SF6-free technology across the transmission network on a global level. The majority of plant and equipment on the site shall be SF6 free. All 132kV and 400kV switchgear will be SF6 free. Due to the lack of any market-ready alternatives, there will also be a small amount of SF6 gas in the 525kV HVDC cable terminations.
Workforce Accommodation Concern around housing workforce and impact this will have on availability for locals and the tourism industry on island.	We are developing a Housing Strategy which outlines the risks and opportunities associated with providing overnight accommodation for a large-scale work force in our area of operation across various projects. The strategy considers the national housing crisis and logistical challenges which a project of this size brings and is working closely with external stakeholders, including business owners and the local planning authority to ensure that any pressures currently being experienced are not exacerbated by the arrival of a transient workforce. A focus group has been established to develop and deliver a solution that can benefit the communities and provide a positive legacy. We are working with key local stakeholders to understand how best to accommodate the number of workers that will be required. Our intention is that we accommodate workers whilst also leaving a legacy for communities. For the Western Isles site a mixed approach will likely be required and as part of this we will be looking at collaborating on permenant and temporary housing solutions with local suppliers and contract partners.
Environmental and Wildlife Impacts Feedback included concerns that the project could be endangering wildlife and local habitats, including local birdlife.	Habitat and protected species surveys have been undertaken by specialist environmental consultants. Ornithology surveys, notably for raptors, are ongoing until March 2025. This baseline data will be used within the EIA to determine the potential impact on ecology and ornithology from the proposed project and propose suitable mitigation measures, which will include further pre-construction surveys, ahead of construction starting at the site. An ecologist will also be on site during nesting bird season to monitor any nesting activity close to the site, and to provide site specific mitigation measures during construction.

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Feedback

Event feedback	Response
Visual Impact Stakeholders requested more information and visuals showing how the site will be screened. Viewpoints from the Castle grounds, Lower Sandwick and the main road heading North on the A859 fast tracked for PAC 2 Event. What colour will the building be?	We recognise that local people are concerned about the appearance of the building, and what this might look like within the local landscape. A landscape and visual impact chapter will form part of the environmental impact assessment, to be submitted as part of the planning application. The EIA will make recommendations for reducing the landscape and visual impact of the development. Mitigation measures might include hand landscaping (i.e. bunding) or soft landscaping, such as planting trees, particularly in areas close to existing trees to enhance tree cover. We will also be preparing a Residential Visual Amenity Assessment, which is a more detailed assessment, for the closest residential properties to the development. This will assess the impact on the closest properties in greater detail. We will consider the colours of buildings carefully, to ensure that these are sympathetic to the local environment.
Consultation Stakeholders requested clarity around our consultation and feedback processes.	We are mindful of the uncertainty that our proposals can pose to communities who may be affected. Our process for project development seeks to identify options that provide an appropriate balance across a variety of considerations and interests. We aim to do this as swiftly as possible to minimise the duration of uncertainty for affected communities. However,we are also committed to providing sufficient time and opportunity for all stakeholders to feed into each stage of our project development process, so that views can be understood and wherever possible incorporated into design decisions. This is a balance which has to be carefully managed. We understand that everyone may be impacted in different ways and we would be interested in communities' views regarding any additional activities that would help to address their specific concerns. Our responses to these topics can be found at: **ssen-transmission.co.uk/2030faqs**. Our statement on EMFs can also be found at: **ssen-transmission.co.uk/2030faqs.** This and other information will be available as handouts at the public events.
Connections to and from the site Questions raised regarding the OHL and cable routes from developers.	The connections into the Lewis Hub from other developments are not currently consented and members of the public will have the opportunity to comment on individual developments for connections into the proposed hub as such developments come forward for individual consent.
Archaeology Surveys and assessments of the ancient archaeology which may lie in the area.	We recognise that local people may be concerned about the impact of the development on cultural heritage, including archaeology. Cultural heritage will be considered in detail as part of the EIA, which will make recommendations for mitigation measures to reduce the potential impact. This chapter will also consider the potential impact of the development on Lews Castle and Lady Lever Park, for walkers and other recreational users of the park. Initial archaeological walkover surveys have identified some potential medieval archaeology in the south east part of the site. We will try and microsite the development away from this, but may carry out further intrusive archaeological assessment to determine the nature and significance of these features.
Project need Surveys and assessments of the ancient archaeology which may lie in the area.	The proposed project on Arnish Moor is a National Development that is supported by national policy, the Electricity System Operator, and the energy regulator. It would contribute significantly towards the delivery of the UK and Scottish Government's Net Zero targets and help reduce the UK's dependence on imported oil and gas. Further details on the need for SSEN Transmission's Pathway to 2030 projects is available at: **ssen-transmission.co.uk/2030-need**

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Feedback

Event feedback	Response
Community benefit Stakeholders requested more information and visuals showing how the site will be screened. Viewpoints from the Castle grounds, Lower Sandwick and the main road heading North on the A859 fast tracked for PAC 2 Event. What colour will the building be?	We recognise that local people are concerned about the appearance of the building, and what this might look like within the local landscape. A landscape and visual impact chapter will form part of the environmental impact assessment, to be submitted as part of the planning application. The EIA will make recommendations for reducing the landscape and visual impact of the development. Mitigation measures might include hand landscaping (i.e. bunding) or soft landscaping, such as planting trees, particularly in areas close to existing trees to enhance tree cover. We will also be preparing a Residential Visual Amenity Assessment, which is a more detailed assessment, for the closest residential properties to the development. This will assess the impact on the closest properties in greater detail. We will consider the colours of buildings carefully, to ensure that these are sympathetic to the local environment.
Consultation Suggestions were received with respect to possible community benefits. These include: • Path improvements in the local area. • Upgrading the cycle pathways as part of the upgrading works on the roads. • Using volunteer days and support in kind to fix local playparks. • Support local car club to upgrade club house.	We'd like to thank residents for providing their feedback suggesting community benefits they would like to see implemented within the local area. While some of the suggestions are outside of the scope of the project to deliver, it is our intention to work with the community to further explore opportunities in this area. This feedback has been noted and when it is appropriate to do so, will be considered by our construction team, contractors and our community benefit fund team. SSEN Transmission has recently released our first Community Benefit Fund which enables us to work directly with local communities to support initiatives across across our operational area in the North of Scotland, Highlands and Islands, and help fund projects that can leave a lasting, positive legacy. More information regarding the community benefit funding is available at: **ssen-transmission.co.uk/information-centre/community-benefit-fund** In terms of broader community benefits, our Pathway to 2030 projects are boosting the economy, supporting local jobs and businesses. Recent studies show our Pathway to 2030 programme could contribute over £6 billion to the UK's economy, support 20,000 jobs across the UK and benefit Scotland by around £2.5 billion, supporting 9,000 Scottish jobs.
Connections to and from the site Questions raised regarding the OHL and cable routes from developers.	The connections into the Lewis Hub from other developments are not currently consented and members of the public will have the opportunity to comment on individual developments for connections into the proposed hub as such developments come forward for individual consent.
House value Concern for impact on house value, including from residents of Lower Sandwick.	We understand that there are concerns about potential impacts from our proposed developments on property values, particularly on properties within the vicinity of our proposed development sites. Throughout the development of the Lewis Hub proposal, we have engaged with property owners and have listened to their concerns on this topic. SSEN Transmission will look to mitigate impacts on residential properties as far as is possible and any potential impacts will be assessed as part of the Environmental Impact Assessment process and will be reported in the EIA Report that will accompany our application. We will be conducting surveys at identified receptors, including selected residential properties so that we are able to model potential impacts on properties and the wider area.

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Feedback

Event feedback	Response
House value (cont.)	Concerns in relation to impacts on property are being noted by our team however as a regulated business, SSEN Transmission is obliged to follow a statutory legal framework under the Electricity Act 1989 and the Land Compensation Act 1961. If you are entitled to compensation under the provisions of the relevant legal framework, we will assess any claim on a case by case basis under the direction of this legal framework.
Tourism Concern for impact on tourism and visitors to the area.	For each project that SSEN Transmission develops, including the Lewis Hub, we conduct a Landscape and Visual Impact Assessment. This is an element of the Environmental Impact assessment. In this assessment, we consider visual impact from centres of population, popular locations, like walking paths and tourist sites, and where possible we seek to reduce any potential negative visual impacts. In addition, an assessment of socio-economic impact (including tourism) will be undertaken as part of any planning application.
Peat Management	At site selection stage, opportunities to avoid and minimise impacts on peat were considered as part of the site selection process. The proposed development is located in an area with varying depths of peat. We are working with specialist consultants to gain advice and understanding on working in peat. We have already undertaken extensive peat probing and coring to understand depths and composition, and have microsited permanent and temporary works away from the deepest peat. An outline peat management plan will be submitted with our planning application, detailing volumes of peat to be excavated, and explaining how excavated peat will be reused on site, for example, to dress the sides of access tracks and roads. We have sought to minimise the impacts on peat through the site selection process, and following peat probing on a 10m grid at our proposed site, through micrositing temporary compounds, and altering the substation platform footprint and drainage design. The project recognises the challenges of moving significant volumes of peat to allow the development of the site. We have been working with a specialist environmental consultant to mitigate the need for transport of significant volumes from the main site location and on public roads. The methodology is still in development, however, we would expect that the majority of the peat to be excavated will be retained within the site boundary.
Site name **- Lewis Hub**	Feedback on the “Lewis Hub” site suggests that there may be the possibility of confusion for community members as to what is being referred to when mentioning the Lewis Hub. There are other businesses and organisations within the Stornoway area that use Hub as part of their name and this was raised at consultations as creating potential issues. The project team are taking this under consideration and will be looking at other options that may be more suitable for the site going forward.

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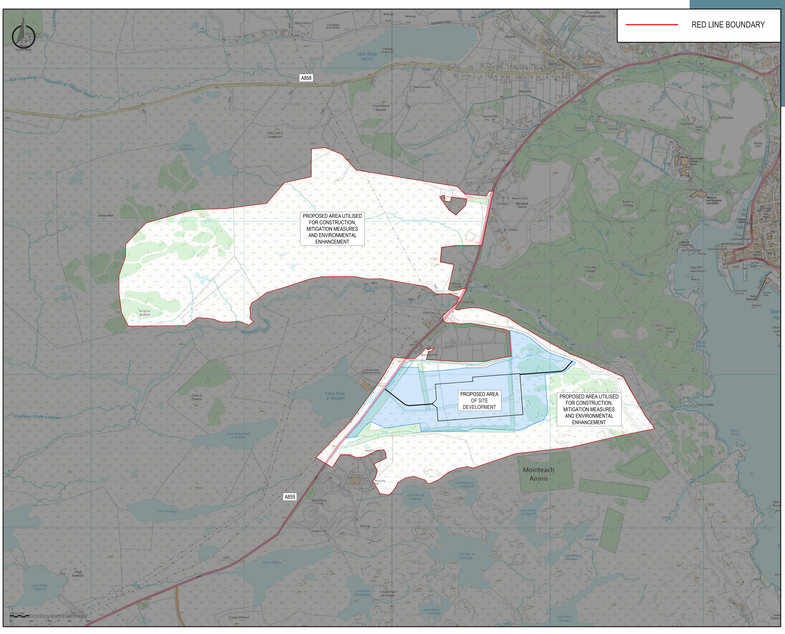
Development boundary map



Please note: The wider Red Line Boundary (RLB also includes areas which have been identified for environmental enhancement, which encompasses some of the moorland close to the previous potential converter station site at Creed North.

This has been included in the PAN as a potential site on which the projects commitments to improve and enhance the environmental impact of the site could be met.

The PAN boundary, therefore, does not represent the permanent footprint of the substation itself but indicates the full development area.

Although identified in blue hatch above is the permanent infrastructure area, encompassing access, platforms, buildings and drainage features.

Download a copy of the map by scanning the QR code or by visiting the following URL:
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3D visualisations

We understand that local stakeholders need to be able to visualise what the development may look like in their local area. We've commissioned 3D visualisations which model Lewis Hub into the local landscape to help understanding of the proposals in terms of the visual impact, distance and height.

Aerial View from south-west looking north-east over the substation and converter station.

The layout and colour of our proposals may change based on feedback and further refinement of the design. If that happens, we'll update our model and video and share this on our webpage.

These visualisations are shown without visual mitigations.

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Development considerations

During our last consultation, we outlined many of the engineering, environmental and social considerations we take account of when establishing a practical site for the substation. Now that we have identified a proposed site, we are able to share further details regarding many of our development considerations.

Local wildlife

We recognise the need to understand the local environment and ensure that we put suitable measures in place during construction to protect wildlife from disturbance.

- **Bird Surveys:** Vantage point surveys started in Spring 2024 and we have also been engaging with NatureScot and the local Raptor Study Group
- **Habitat Survey:** river habitat surveys were carried out on the River Creed in July 2024. Detailed habitat site survey of the site is planned for September 2024
- **Protected Species Survey:** Otter surveys are to be carried out to inform the EIA and also prior to development commencing at the site.

Surveys will inform the ecological andornithological assessment in the Environmental Impact Assessment (EIA).

For all identified protected species the design will seek to avoid/minimise impacts wherever possible and where this is not possible, provide the appropriate levels and types of compensation. Where necessary, relevant species licences will be sought from NatureScot and construction will be undertaken in accordance with species specific management plans. This will ensure the careful management of protected species is undertaken by qualified ecologists.

Traffic

Two new access points to be proposed for the site for operational control and safety, one to the AC Substation from the A859 and one to the DC Converter from Arnish Road.

During the initial site works it is anticipated the primary access to the site will be from the Arnish Road to reduce the volume and heavier vehicles on the public road.
The port facilities at Arnish and the Port will be utilised for delivery of construction materials and equipment.

Landscape and visual impact

The appearance of the substation within the landscape and where it will be seen from is being carefully considered. We have appointed an independent chartered Landscape Architect to assist us with the design. A landscape and Visual Impact Assessment (LVIA) is required as part of the Environmental Impact Assessment (EIA) process, to assess the impact of this substation and converter station on the landscapeand visual amenity. Any impacts will be minimised and/or mitigated where possible.

Photomontages will be generated by the landscape architects, showing what the development will look like from these key viewpoints. This information will help inform the final design of the landscape forms to reduce the visual impact of the new substation as far as possible. The photomontages will be included as part of the EIA.

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Development considerations

Water and drainage

The following hydrological aspects are being investigated as part of the ongoing EIA:

- Groundwater and surface water bodies
- Potential for flood risk—a flood risk assessment is being produced and will form part of the EIA Report
- Site drainage—a Drainage Impact Assessment (DIA) is being produced and will form part of the EIA report
- Public and private water supplies
- Drinking water protection areas
- Groundwater dependent terrestrial ecosystems

A site drainage plan for both the construction and operational phases will be developed to mitigate the impact on the surrounding water environment.

Peat and soils

The design of the converter station and substation platform, as well as all temporary works, has been informed by peat probing at the site, with the areas of deepest peat avoided.

The mitigation hierarchy described in NPF4 recommends first avoiding and then minimising the amount of disturbance to soils on undeveloped land. It is understood that approximately 50% of the blanket bog has been cut and is heavily modified and cut and fill calculations may indicate the site would provide an opportunity to minimise disturbance to soils.

It is expected that earthworks will generate excess peat, and we are looking at options for the reuse of peat both onsite, and at locations where peat has already been modified offsite.

Lighting

We will fully assess the requirements for construction and operational lighting as part of the Environmental Impact Assessment. The EIA will include site specific recommendations to mitigate any impacts of lighting on nearby properties.

We will produce a lighting strategy for the operation of the site as part of the planning application. Construction lighting will follow best practice to minimise light spillage. Our substations are not permanently floodlit but instead have motion security lighting, plus work lighting in case of urgent repairs during hours of darkness.

Cultural heritage

Archaeological site walkovers will be undertaken to inform the Environmental Impact Assessment of the site.

The environmental impact assessment may recommend measures such as excavating target features in advance of construction commencing, and having a qualified archaeologist (Archaeological Clerk of Works) on site during earthworks to monitor excavations.

A written scheme of investigation will be developed to satisfy any planning condition associated with archaeology, and this will be approved by CnES prior to works commencing on site.

As well as direct physical impacts from the construction process, the EIA will undertake an assessment of the operational effect of the new substation and converter station on changes within the setting of cultural heritage assets.

The assessment will include visualisations from key viewpoints of these heritage assets, in agreement with CnES and Historic Environment Scotland, and potential impacts through changes within the setting of heritage assets will be considered as part of the ongoing design development process.

Noise

Baseline noise monitoring surveys have been undertaken at noise sensitive receptors within the vicinity of the site to inform an operational noise assessment.

Construction and operational noise assessments will be undertaken.

Appropriate mitigation measures will be considered to attenuate noise from the development.

Biodiversity net gain

To mitigate/compensate for losses where unavoidable, we are looking to identify areas for peat restoration in the vicinity of the site, but also in other parts of Lewis. This reflects our commitment to achieving a 'Net Gain' in biodiversity terms.

Land use and recreation

No long-distance routes, core paths or public rights of way have been identified within the site boundary. Fishing, shooting and deer stalking is known to take place in the surrounding area.

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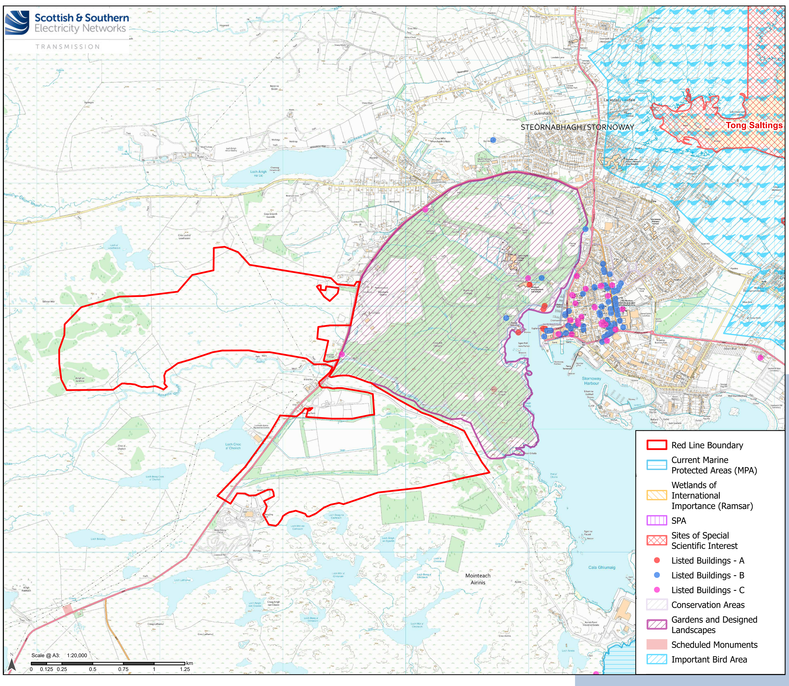
Development considerations

Environmental designations and features map



This map indicates environmental features and designations identified in the wider area. A copy of this map is available to download from the project webpage.

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Visual mitigation

As part of the consultation process with the local authority, we are exploring building colour options and visual mitigation strategies.

We are also reviewing the feasability of additional measures to screen the site, such as landscape bunding and tree and scrub planting, in consultation with landscape and visual specialists as part of the planting process.

Currently we anticipate forming landscape bunds at the East of the site as well as along the A859 to help reduce it's visual impact on the surrounding environment.

Example of Visual Screening measures implemented at Noss Head substation

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