## Beauly Denny 400kV Upgrade: New Fasnakyle 400kV Substation

Powering our

community

Site Selection Public Consultation Booklet September 2023

> Scottish & Southern Electricity Networks



TRANSMISSION



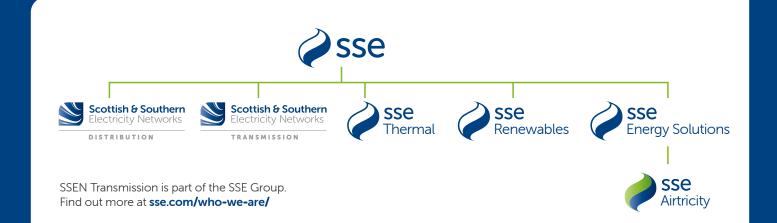
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### Who we are

We are SSEN Transmission, the trading name for Scottish Hydro Electric Transmission. We are responsible for the electricity transmission network in the north of Scotland, maintaining and investing in the high voltage 132kV, 220kV, 275kV and 400kV electricity transmission network.



Our network consists of underground and subsea cables, overhead lines on wooden poles or steel towers, and electricity substations. It extends over a quarter of the UK's land mass, 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 onwards 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 National Grid, the GB transmission System Operator, we also enable these electricity generators to connect to the transmission system by providing their connections and allowing the electricity generated by them to be transported to areas of demand across the country.

Scotland's transmission network has a strategic role to play in supporting delivery of the UK and Scotland's Net Zero targets.

We're already a mass exporter of renewable energy, with around two thirds of power generated in our network area exported to demand centres further south. By 2050, the north of Scotland is expected to need 40GW of low carbon energy capacity to support net zero delivery. For context, we currently have around 8GW of renewable generation connected in the north of Scotland.

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.

Following a minority stake sale which completed in November 2022, we are now owned 75% by SSE plc and 25% by Ontario Teachers' Pension Plan Board.

As a stakeholder-led business, SSEN Transmission is committed to inclusive stakeholder engagement, and we conduct this at an 'Advanced' level as assessed by Accountability, the international consulting and standards firm.



# The Pathway to 2030: **Holistic Network Design**

In July 2022, National Grid, the Electricity System Operator (ESO) who are responsible for making sure that the electricity flows across the UK's system, balancing supply and demand at all times, set out how the transmission network needs to develop to accommodate the growth in renewable electricity across Great Britain. This also included the UK and Scottish Government's 2030 offshore wind targets of 50GW and 11GW. For the north of Scotland, this needs over £7 billion of investment in the transmission network to deliver the 2030 targets and help the country on its pathway to net zero and greater energy independence.

#### **SCOTWIND & PATHWAY TO 2030**

#### In-flight Investments

- yll 275kV strat
- Augustus to Skye 132kV upgrade hey 220kV AC subsea link

#### Pathway to 2030 Investments

- Beauly to Loch Buidhe 400kV reinforcement (BLN4)
- Beauly to Loch Buidhe 400kV reinforcement (BLN4) Loch Buidhe to Spittal 400kV reinforcement (SLU4) Beauly to Blackhillock 400kV double circuit (BBNC) Blackhillock and Peterhead 400kV double circuit (BPNC) Beauly to Denny 275kV circuit to 400kV (BDUP) Sast Coast Onshore 400kV Phase 2 reinforcement (TKUP) Spittal to Peterhead 2GW HVDC subsea link (PSDC) Peterhead to Drax 2GW HVDC subsea link (PSDC) Peterhead to Sauth Lumber 20kU HVDC subsea link (F4D3)

- Peterhead to South Humber 2GW HVDC subsea link (E4L5) Arnish to Beauly 1.8GW HVDC link Aquila Pathfinder

#### **Public Consultation to Inform Project Development**

All new reinforcements remain subject to detailed consultation and environmental assessments to help inform route and technology options

More detail on these projects, including how to sign up for updates, will be made available on SSEN Transmission's website, www.ssen-transmission.co.uk

- New Infrastructure (Routes shown here are for illustrative purposes)
- Upgrade/Replacement of Existing Infrastructure
- **Existing Network**

# <u>^↑</u> <u>†</u>†

#### What does this mean for the **Central Highlands and Central Scotland?**

Extensive studies informing the ESO's Pathway to the 2030 Holistic Network Design confirmed the need to upgrade the second circuit of the Beauly -Denny overhead line from 275kV to 400kV. To do this, we require to construct two new 400kV substations at Braco West and in the Fasnakyle area. We'll also require modifications or extensions to other substations along the route, including Fort Augustus, Errochty, Kinardochy and Tummel. Connections to existing substations will also be required as part of the upgrade.

The upgrade of the Beauly – Denny circuit will help deliver the significant increased capacity needed to transport energy from new large scale onshore and offshore renewable generation (mainly wind farms) to demand centres via onshore and HVDC subsea links.

These projects have been highlighted as critical to delivering the UK and Scottish Government's targets, with the development of them accelerated to meet the target dates of energisation by 2030.



The route of the Beauly – Denny line and the



# **Project overview**

#### The Beauly – Denny 400kV Upgrade

The Beauly – Denny overhead line is 137 miles long and runs from Beauly, north of Inverness, to Denny near Falkirk. It was the first 400kV overhead line (OHL) built in SSEN Transmission's network area and became fully operational in 2015.

There are two circuits on the overhead line, one on either side of the steel lattice towers, or 'pylons'.

One circuit already runs at 400kV and we are now required to upgrade the second circuit from 275kV to 400kV capability to help transport large scale renewable generation from the north of Scotland to centres of demand.

Because the Beauly-Denny line was constructed for 400kV operation on each of its two circuits but put into service with one operating at the lower voltage of 275kV, we do not anticipate any alterations to the existing OHL in order to achieve this upgrade.

In order for the existing network to connect to the line at 400kV, rather than the current 275kV, the following will be required at sites along the route:

- A new 400kV substation at Braco West (near Crieff).
- A new 400kV substation in the Fasnakyle area (near Beauly).
- Modifications or extensions to other substations along the route, including Fort Augustus, Errochty, Kinardochy and Tummel.
- Connections for the new sites back to the existing substations at these locations will also be required.

New 400kV substations are required at Braco West and Fasnakyle to house more sophisticated switching capability than is present in the existing 275kV substations and this requires significantly more space than either existing substation can currently accommodate.



Both circuits of the existing Beauly – Denny overhead line now need to operate at 400kV capacity

#### New Fasnakyle Area 400kV Substation

This consultation is focussed on the new 400kV substation required in the Fasnakyle area as part of the wider Beauly – Denny 400kV upgrade.

The new substation would be:

- In addition to the existing 275kV substation which was built as part of the original Beauly – Denny project.
- Sited nearby to the existing substation to minimise electrical losses and limit the amount of additional infrastructure between the two sites.
- Required to connect back to the existing substation via an underground cable or OHL.

The footprint of the new substation is anticipated to be much larger than the existing Fasnakyle substation.

We will be able to provide more information regarding the substation footprint and the route of the underground cable once the location for the new 400kV substation has been determined following consultation with local community members and statutory stakeholders.



Existing Fasnakyle 275kV Substation



# What we are consulting on

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 to deliver better outcomes for projects.

We are keen to hear your feedback regarding our site selection process and if there are further considerations you believe need to be considered during the development process.

#### Fasnakyle 400kV Substation Potential Site

During this consultation, we are presenting our approach to developing the new 400kV substation required in the Fasnakyle area as part of the Beauly – Denny 400kV Upgrade. Our consultation includes information regarding our site selection process and the potential site options being considered, the planning process, environmental and engineering considerations and maps which aim to give stakeholders and community members a better visual representation of the work on the project to date. Stakeholder engagement in this early development phase is vital in shaping our proposals. To do this effectively we need to capture consultation feedback and harness local knowledge to identify challenges and explore community benefit and opportunities.

We're therefore requesting views regarding the site selection process, and any thoughts regarding the potential sites for the new Fasnakyle area 400kV substation presented.



#### Who we're consulting with

We are keen to hear feedback from a broad range of stakeholders including but not limited to local residents, landowners, businesses, non-statutory consultees and statutory consultees such as local authorities, NatureScot, <u>SEPA and Historic Environment Scotland</u>.

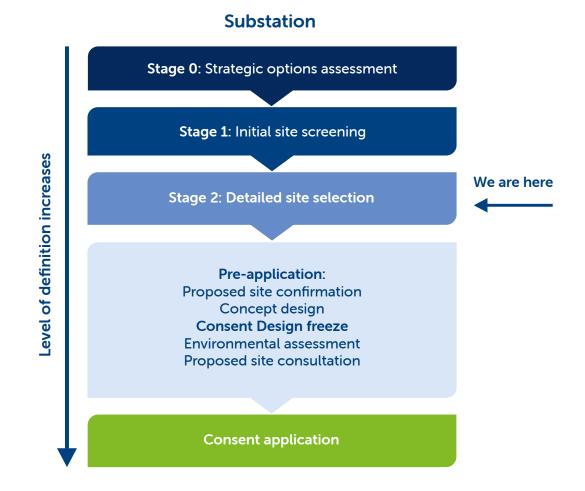


If you require additional support to submit your views, please contact our Community Liaison Manager who will happily assist you.



# **Our site selection process**

We follow our internal guidance to enable us to consistently and rigorously select sites for new substations. The process involves a number of key stages, each increasing in detail and definition and bringing technical, environmental and cost considerations together in a way which seeks the best balance in accordance with our Transmission Network Operator's License and the Electricity Act 1989.



#### Stage 2 – Detailed site selection – current project stage

This stage seeks to identify a potential site from shortlisted options, that minimise (where practicable) physical, environmental and amenity constraints, are likely to be acceptable to stakeholders and are viable (taking into account engineering and environmental requirements).

The connections into new and existing assets forms a crucial part of this assessment to reduce the need for additional new infrastructure. Both the process and our potential options are then presented to the public and statutory stakeholders for consultation. Comments on our process are critical in ensuring the potential options are the best to be taken forward to planning. Comments are taken on board and modifications may be made to ensure comments have been accommodated where practicable. These will be presented during further pre-application consultation events to the public and statutory stakeholders.



# The planning process

#### The outcome of the optioneering process will be a development for which consent under the Town and Country Planning regime will be sought.

#### **New substation**

This requires an application for planning permission to be submitted to The Highland Council under the Town and Country Planning (Scotland) Act 1997.

#### **Overhead line tie-ins**

These will be required to connect the new substation onto the Beauly-Denny OHL and will require an application for consent under section 37 of the Electricity Act 1989, to be submitted to the Scottish Ministers via the Energy Consents Unit (ECU).

The substation planning application will identify the proposed development, including:

- Site boundary clearly shown in red (the Red Line Boundary) including any permanent and temporary access routes and junctions onto public highways.
- The proposed development in relation to the site boundary with dimensions of all permanent and temporary works including structures, buildings, perimeter fencing, drainage features, key electrical equipment, construction compounds and laydown areas.

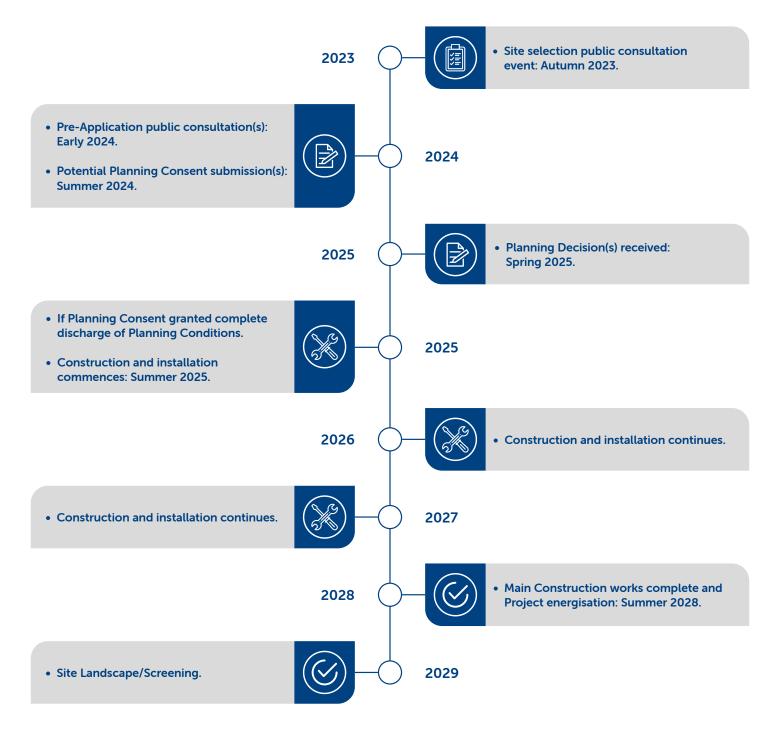
This large scale project will also be subject to the Environmental Impact Assessment (EIA) requirements. The Highland Council will be consulted on whether the development should be classed as EIA or non-EIA through a process called EIA Screening. If the development is deemed to be EIA then a formal EIA Report will be produced to support the application.

Should the proposed development be deemed non-EIA (due to its scale or potential environmental impacts), a voluntary environmental Appraisal will be produced by SSEN Transmission to support the application.

#### Planning application for substation and Section 37 application for OHL tie-ins Site Selection carried out We are here Initial consultation with public Initial consultation with Planning **Authority and Statutory Consultees** and local communities **Environmental** Finalising **Pre-Application** Public Impact site selection activities consultation Assessment process Further Formal public Submit **Application** and stakeholder information application determined consultation requested Possible planning appeal by Department **Decision issued by Energy Consents** of Planning and Environmental Appeals **Unit and/or Planning Authority Division (Planning Permission Appeal)**



# **Project timeline**



# **Substations**

Scottish & Southern Electricity Networks

The upgraded overhead line has to connect to the existing transmission network at connection points along the route. Therefore, new 400kV substation sites are required in addition to the existing sites at these locations.

#### What is a substation?

An essential component in the energy network, substations connect sources of generation, such as wind farms and power stations.

They connect overhead and underground circuits and can connect nearby utility systems. 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 (step-up or step-down—for example 132kV stepping-up to 275kV), manage the frequency of the electricity and increase efficiency and reliability of the power supply.

#### Other key substation functions

Substations are critical in maintaining an efficient and healthy energy network, as they monitor and report back to operators on statistics and events to provide live information on our network. This allows for the following functions:

- Fault monitoring and identification which allows for isolation to protect the network and allow repairs.
- Allow for redirection and disconnection of energy to allow for demand/maintenance.
- Provide data such as voltage, current and power flow to allow for efficient running and future predictions.





The GIS substation at Peterhead

#### Air Insulated Switchgear Substation (AIS)

An AIS substation is constructed with switchgear which relies on open air components, which can require large clearance areas for operation and safety.

#### Gas Insulated Switchgear Substation (GIS)

A GIS substation is constructed with switchgear with gaseous reliant components which allows operation and safety clearances to be reduced compared to AIS.

#### About the New Fasnakyle area 400kV Substation

It is more efficient to locate the new substation in close proximity to the existing Fasnakyle substation and the existing Beauly – Denny overhead line. The new 400kV substation will consist of:

- 400kV transformers and a new 400kV double busbar.
- A platform size for Air Insulated Switchgear Substation (AIS) would be approx 380x315m. Earthworks will be required in developing the platform.
- Overhead line tie ins from the new substation to the existing Beauly Denny overhead line; and
- Upgrade existing or provide new access tracks, temporary construction compounds and construction lay down areas.

We will also remove some of the equipment from the existing 275kV Fasnakyle Substation, with the control building likely to remain.



# **Overview of the Fasnakyle** site selection process

We follow formal internal guidance to enable us to consistently and rigorously select sites for new substations, switching stations and converter stations. Each process has several key stages, each increasing in detail and definition and bringing technical, environmental and cost considerations together in a way which seeks the best balance in accordance with our Transmission Network Operator's Licence and the Electricity Act 1989.

#### Stage 0 – Strategic options assessment

The initial high-level stages of site selection include requirements such as being in close proximity to the existing network, minimising the amount of new infrastructure required for the connection. The area must be large enough to accommodate the required substation footprint, together with associated landscaping, contractor compounds, access tracks and additional space for future expansion. Finally, the site must aim to avoid environmental designations and minimise the impacts on local environmental receptors.

#### Stage 1 – Initial Site Selection

Fourteen different options were identified over three rounds of site selection, all within a 2.5km search window either side of the Beauly-Denny overhead line running north along the line to Corrimony and south to Dundreggan. These sites were assessed for suitability via Multi Criteria Analysis (MCA), Geographic Information System (GIS), site walkovers, desk studies and field reconnaissance.

Of the fourteen options, options 7, 8 and 13 were discounted early in the process due to feasibility issues in terms of space constraints, environmental, reputational or local stakeholder impact. Early Red, Amber, Green (RAG) matrix scoring was undertaken for the remaining options.

#### Stage 2 – Detailed Site Selection

Further appraisal and comparison of the shortlisted options resulted in options 4, 9 and 10 being taken forward to Stage 2. Further details of the Stage 2 process can be found on the following pages.

#### **RAG Assessment Criteria**

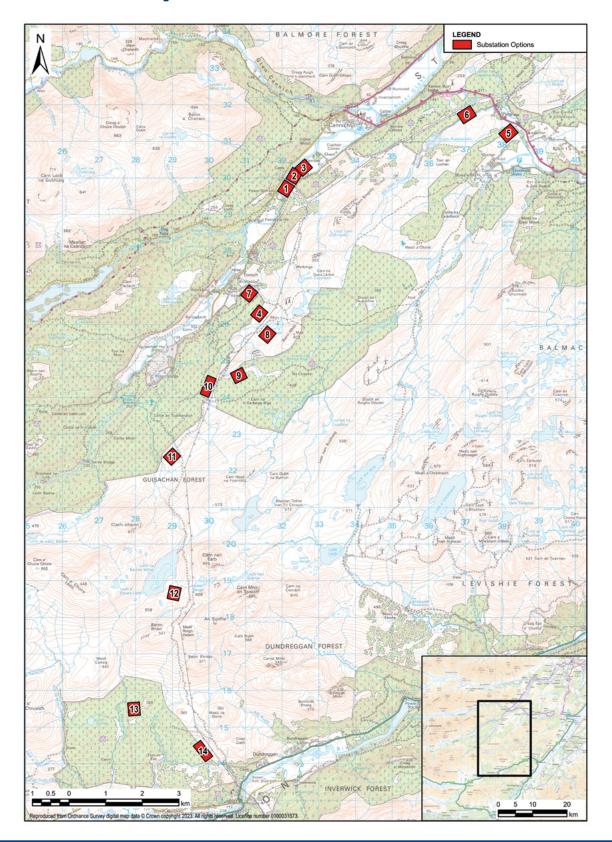
Stages 1 and 2 of the site selection process apply a Red Amber Green (RAG) risk assessment scoring for technical, environmental and economical aspects.

The criteria is shown in the diagram opposite.

Performance	Comparative appraisal
Most preferred	Low potential for the development to be constrained.
	Intermediate potential for the development to be constrained.
Least preferred	High potential for the development to be constrained.



# Fasnakyle 400kV substation site selection options considered





# **Overview of the Fasnakyle** site selection process









# **RAG** assessment

	Category	Site 4	Site 9	Site 10				
ĺ	Connectivity							
	Existing circuits/networks	L	м	L				
	Future development possibilities	Н	м	Н				
	Interface with SSEN Distribution and Generation	L	L	L				
	DNO connection	L	L	L				
	Footprint requirements							
	Technology	М	м	м				
	Adjacent land use	L	L	L				
	Space availability	L	L	L				
	Hazards							
	Unique hazards	L	L	L				
	Existing utilities	L	L	L				
6ul	Ground conditions							
Engineering	Topography	н	м	м				
Eng	Geology	L	м	L				
	Environmental conditions							
	Elevation	н	н	н				
	Salt pollution	L	L	L				
	Flooding	L	м	м				
	SF <sub>6</sub>	м	м	м				
	Contaminated land	L	L	L				
E I I I I I I I I I I I I I I I I I I I	Noise	н	м	м				
	Construction access							
	Substation access road (from public road)	М	Н	н				
	Transformer delivery route	Н	Н	н				
	Operation and maintenance							
	Access	Н	н	н				



	Category	Site 4	Site 9	Site 10				
	Natural heritage							
	Designations	м	м	м				
	Hydrology/Geology	м	м	м				
	Cultural heritage							
	Designations	м	L	L				
	Cultural heritage assets	м	L	L				
	Landscape and visual							
int	Designation	L	L	L				
Environmental/consent	Landscape character	м	м	м				
	Visual	м	м	м				
men	Land use							
viror	Agriculture	L	L	L				
Ш	Woodland/forestry	м	м	н				
	Recreation	L	L	м				
	Planning							
	Policy	м	м	м				
	Proposals	м	м	м				
	Cost							
	Capital	L	L	L				
	Operational	L	L	L				



# Site selection – Environmental

Local environmental and social aspects are a key consideration in selecting the optimal site. As part of site selection environmental considerations, surveys and assessments together with identification of potential impacts on people's use of the area have been undertaken to help inform the process.

These will continue as we move from site selection to the consenting process. The assessments will cover landscape and visual amenity, ecology/habitats, ornithology, geology/ hydrogeology, hydrology, and cultural heritage. Key environmental designations are shown on the plan on page 17.

#### Natural heritage

- The project will continue to assess the risk to species and habitats in the area and in consultation with key stakeholders will give full consideration to any potential effects identified.
- Several natural heritage designations are present within the wider area including Glen Affric National Nature Reserve, Strathglass Special Area of Conservation and Glen Affric and Strathconon Special Protection Area.
- Ancient Woodland Inventory Areas are present ~500m from option 4 and option 9, and ~350m from option 10 at their nearest points.
- The habitat surrounding each of the options has potential to support European protected species such as red squirrel, badger and pine marten.



#### **Cultural heritage**

- Option 4 is ranked the least favourable option for cultural heritage, located the closest to Tomich Village Conservation Area and to two Sites and Monuments Record Entries.
- Option 9 and 10 have low potential of unidentified cultural heritage features.
- Each of the options are located within 5km of at least one Scheduled Monument.

#### Hydrology and geology

- Option 9 is situated the furthest from a watercourse (~200m) with option 4 and 10 situated 60m and 35m away, respectively.
- Each of the options are located on aquifer classification 2C low productivity aquifer.
- Each of the options are within 5km of private water supplies, though none are closer than 1km.

#### Landscape and visual

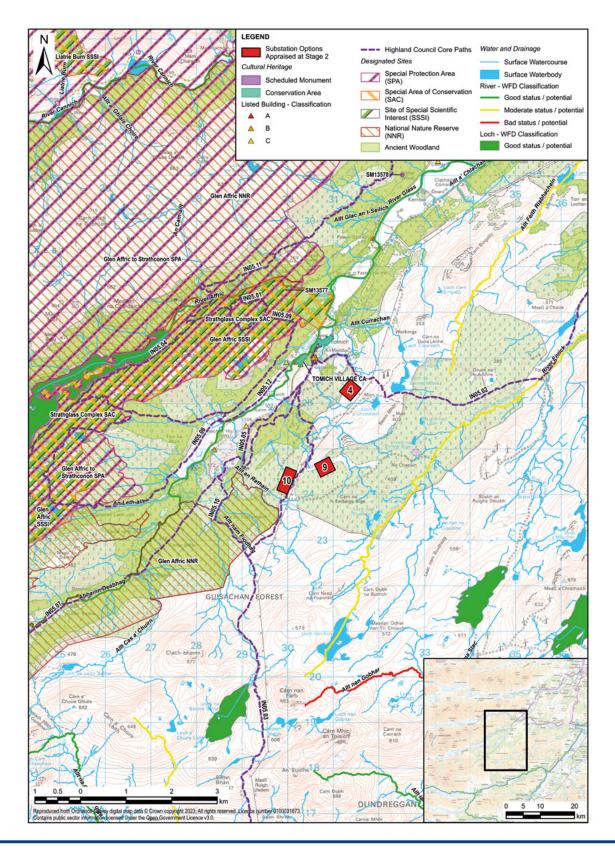
- Tomich and the surrounding Affric area is a popular tourist and recreation destination.
- Strathconon, Monar and Mullardoch Special Landscape Area, Glen Affric National Scenic Area and Central Highlands Wild Land Area designations are present within 5km of each of the options.
- Visual impact has been assessed for all options along walking paths and summits within landscape designations.
- Highland Council Core Path IN05.03 is located within close proximity to each of the options, with option 10 requiring the path to be rerouted.

#### Land use

- Native woodland exists within options 4 and 10.
- Residential and tourism properties exist within 5km of each of the options.



# Fasnakyle 400kV substation environmental considerations





# Site selection – Engineering considerations

Engineering site selection involves determining the optimal design and location based on a number of technical factors, examples of which are highlighted below. How the selected options compare in these categories is shown on the next page.

The local environmental and social aspects also play a part in the engineering selection process where initial surveys and assessments are supplemented by additional technical ones, such as a Ground Investigation. Work on refining the design will continue alongside the environmental assessments as we move from site selection to consent application.

#### Connectivity

Simply put, how easily the new site will be able to connect into the wider SSEN Transmission network.

This has a few key factors:

- Ease of connection; how much additional work will be required to connect, e.g. additional circuits, compounds.
- Outage mitigation; how long the local transmission network will need to be out of service.
- Interfacing; how easy it is for other connections (i.e. generation, distribution) to be routed to this site.

#### Ground conditions

The type of terrain the site is to be built upon.

Key factors:

- Topography; how sloped or undulating the site is, the flatter the better.
- Geology (peat); peat is good for biodiversity and bad for electricity so is avoided where possible.
- Geology; any other geological factors apart from peat.



#### **Environmental conditions**

How these conditions will impact the function and lifespan of the electrical equipment on-site.

Key considerations:

- Elevation; informs expected wind speeds, likelihood of snow.
- Salt/corrosion; salt buildup can cause equipment to fail early.
- Flood risk; must be mitigated to ensure equipment is not submerged.
- Noise; how much the electrical equipment will be heard by nearby properties and recreational users (e.g. walkers).

#### Access

How easy the site is to access, both during construction and for ongoing operations and maintenance.

Key considerations:

- Route; how far from a main road, how steep or narrow, how tight the corners are.
- Transformer delivery; these are very large and heavy so need special consideration.





# Site selection – Engineering assessment

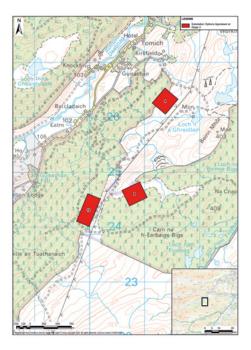
The options, 4, 9 and 10 are shown opposite. Selecting a suitable site for this substation was very constrained by a combination of geography and environmental factors, which required that we be flexible in some of the areas of design which would normally be strong negative signifiers during site selection. A selection of the comparators are outlined below.



#### Connectivity

All options are in close proximity to the existing Beauly-Denny overhead line, so connections into the Transmission network are relatively even between options, with option 9 being situated slightly further back. Outages are also predicted to be similar between options. Several generation schemes are contracted to connect into Fasnakyle.

Due to environmental and topographical constraints, these would be easier to route if connecting into the substation on the west side of the Beauly-Denny line. Only option 9 is located on the west of the line. Option 10 is space-constrained, which may limit the routing of generation connections into the site.



#### **Environmental conditions**

Each option is around 300 metres elevation, with options 4 and 10 slightly lower than option 9.

The expected wind speeds and snowfall do not vary significantly between options, though both factors are a significant consideration in general which will require mitigation during design.

None of the options are coastal, so salt corrosion is not predicted to be a concern, and flooding is restricted to small pockets of low-likelihood 1 in 100 year and 1 in 1000 year likelihood of flooding. Option 4 is the closest to nearby properties and would pose the greatest risk of noise disturbance. Options 9 and 10 are roughly equidistant from the nearest dwelling.

#### Ground conditions

Option 4 has a significant slope, where options 9 and 10 are shallower, though still sloped.

Peat may be present at all options, so the options are equal in this regard. A full peat assessment will be necessary to assess the extent of its presence.

#### Access

All three option locations are presently accessed via one of two forestry tracks, both of which pose challenges. Both pass through the village of Tomich, which has narrow streets not designed for heavy construction traffic. The route to the north is extremely steep and the route to the south has tight switchbacks. Both routes would require significant alteration and reinforcement to make them traversable by transformer delivery vehicles.

The project is therefore still investigating alternative routes.



# Our best on balance site option

#### As outlined so far in this brochure, site selection is challenging on this project.

Several options closer to the existing Fasnakyle 275/33kV substation were considered, as well as some options further to the north along the Beauly-Denny line near Corrimony and to the south along the line towards Dundreggan.

Each option not presented in the previous few pages was eliminated from consideration due to an assessment of the difficulty in establishing the contracted generation connections into these locations as constrained by environmental and/or geographical factors. The potential site option we believe best balances the environmental and technical factors under consideration for the Fasnakyle area 400kV substation is option 9. The key environmental, engineering and commercial reasons for this are set out below.

#### Environment

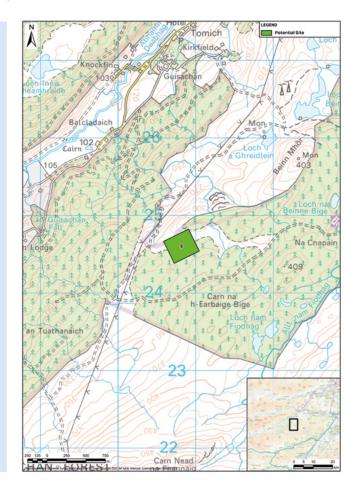
A comparison of all three options has identified option 9 as the environmentally most preferred. Whilst all options are in proximity to Ancient and Native Woodland, option 9 is situated the furthest distance and is the only option that does not require tree felling. It will have the least impact on the residential and conservation area of Tomich Village, situated the furthest away of each of the options. It has a low potential for the presence of any unidentified archaeological or cultural heritage features and is situated the furthest from any watercourse, reducing the risk of pollution.

#### Engineering

Options 4, 9 and 10 presented the best compromise of accessible site locations and wider generation connectivity into the network. Of the three, option 9 was the site best positioned to achieve this compromise.

#### Cost

Capital costs such as construction, diversions, felling, public road improvements, etc. and Operational costs including inspections and maintenance were compared for each of the options. For Options 4, 9 and 10 there was very little difference with each other in terms of costs.



	Key topics relating to site										
Options	Existing circuits/ networks	Future development possibilities	Topography	Geology	Flooding	Noise	Substation access road (from public road)	Designations	Cultural heritage assets	Woodland/forestry	Recreation
4	L	н	н	L	L	н	М	М	М	М	L
9	м	М	м	М	М	м	н	L	L	М	L
10	L	н	м	L	м	м	н	L	L	н	м



# **Biodiversity net gain**

We recognise that we have significant interaction with the environment through the activities we undertake in Scotland as we seek to develop and improve the transmission network. With this work comes a legal responsibility to design and build our projects in a manner which protects the natural and built environment.

We are committed to protecting and enhancing the environment by minimising the potential impacts from our construction and operational activities on biodiversity. To this end, we have committed to no net loss of biodiversity in non irreplaceable habitats for all of our projects gaining consent from 2020 onwards, and net gain of biodiversity on all projects gaining consent from 2025. This means that during the development, construction and operation of our projects, we will leave the environment no worse than when we found it, and where possible make it even better, leaving a positive environmental legacy at all of our SSEN Transmission sites. As this project progresses through the development process, we will actively seek ways to avoid and minimise impacts on biodiversity, through careful site design to avoid areas of highest biodiversity value, to implementing habitat restoration and improvement measures in areas within and surrounding the proposed development.

Please let us know if you have ideas for biodiversity improvement projects in your local area that SSEN Transmission could get involved with.

#### Example project: Argyll Coast and Countryside Trust (ACT) Woodland Planting Collaboration

Argyll's rainforest is a unique and rare habitat of ancient and native woodland. This collaboration with ACT will help deliver SSEN Transmission's compensatory tree planting commitments in Argyll while helping towards ACT's woodland planting ambitions, supporting its charitable objectives including biodiversity gain, health and wellbeing improvement for local people, outdoor learning opportunities and climate change workshops.





#### Example project: Thurso South Substation

Creation of approximately 10 hectares of pollinator habitat to support the rare endemic great yellow bumblebee and contribute to wider conservation efforts for this species.



# **Working with landowners**

We recognise landowners and occupiers as key stakeholders in the development of our projects and are committed to consultation and engagement with all parties likely to have an interest in our proposals.

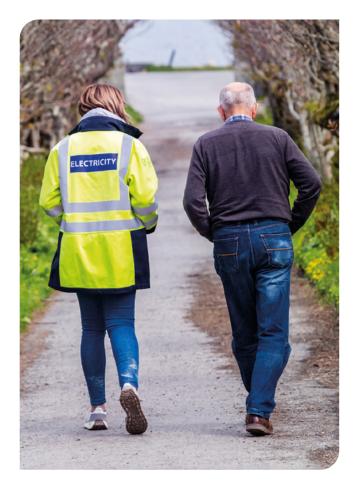
As the project design develops, we will work with landowners and occupiers to mitigate the effects of our infrastructure on their properties. Our team of dedicated land managers will be on hand to answer queries and address concerns throughout.

We will be required to carry out various engineering and environmental surveys to inform the design process. Consent will be sought from affected landowners and occupiers in advance for these surveys.

Once we have finalised the design of the substation and associated works, we will be required to secure the appropriate land rights from landowners and occupiers in order that appropriate consents can be sought from Scottish Ministers. Our land managers will endeavour to reach a voluntary agreement with landowners and occupiers, however, as a statutory undertaker, we may require to underpin voluntary discussions with an application to Scottish Ministers for a Necessary Wayleave or Compulsory Purchase Order. Ultimately this is to ensure nationally significant infrastructure projects are delivered on time and in line with our licence obligations. We also have a duty to protect the interests of the UK bill payer. Statutory powers are not used lightly as we aim to work with landowners and occupiers to secure the necessary land rights voluntarily.

All potentially affected landowners and occupiers have the opportunity to provide feedback at our in person consultation events and by submitting a feedback form. We would encourage all those with an interest to submit their views through this consultation.

Contact details for the dedicated project land managers can be found on the relevant webpages: **ssen-transmission.co.uk/projects/ project-map/beauly-denny-400kv-upgrade/** 





# **Frequently Asked Questions (FAQs)**

## Will there be any noise impacts from the substation?

Noise surveys will be carried out and a detailed noise impact assessment will be completed and included in an environmental Appraisal. This will consider noise impacts from the substation, cumulative noise impacts as well as consideration of any mitigation required.

#### What about Electric Magnetic Fields (EMFs)?

EMFs are considered as part of our environmental Assessment process. We are obliged as part of our transmission licence obligations to ensure that our assets operate within the limits as specified in guidance from the UK Government. These limits are based on the advice of the Government's independent scientific advisers - Health Protection Scotland and Public Health England (formerly Health Protection Agency, Formally NRPD) - who ensure the appropriate level of protection for the public from these fields.

Health Protection Scotland and Public Health England are appointed by the Secretary of State to protect the public from dangers to health. These organisations conduct and review relevant research and ensure that the guidelines for limiting exposure are based on the most appropriate available scientific information.

## Are there any increased risks from flooding or drainage?

SEPA's National Flood Risk Assessment Flood Map does not identify the Potental Developments as being within an area likely to experience river flooding here are small pockets of low-likelihood surface water flooding identified across the proposed option.

Potential water flood risk in relation to the construction and operation of the Potential option will be considered during the environmental Assessment stage. A Construction Environment Management Plan (CEMP) will be developed in the pre-constructions stage and SSEN Transmission General environmental Management Plans will applied, which include standard mitigation measures such as Sustainable Urban Drainage Systems (SuDS)) in order to minimise the potential for impacts on surface water and groundwater during construction and operation.

## Will there be any impacts to the local environment and wildlife?

SSEN Transmission have undertaken a number of desktop studies and environmental surveys to ensure that the proposed works will have as little impact upon the local environment as possible. The project will consult with the appropriate regulatory bodies and are committed to ensuring that works adhere to applicable UK and Scottish regulations, as well as industry best practice.

# Will the valuation of my property be impacted?

The introduction of new infrastructure onto property has varied effects on the property value and each case is considered on its individual merits within the statutory framework of the Electricity Act 1989 and the Land Compensation Act 1961. That is, SSEN Transmission are obliged to follow a legal framework, therefore effects on value of property need to be dealt with on a case by case basis.

# Will access on the public road be maintained?

There is potential for travel disruption during construction, when we take delivery of key plant items or because of increased volumes of traffic on the local road network. Disruption will be minimised and typically controlled through an agreed Traffic Management Plan with The Highland Council as part of any consent conditions. SSEN Transmission aims to ensure that construction traffic uses the roads safely and that any inconvenience to the public is kept to a minimum whilst maintaining a safe environment for the workforce and other.



# Notes



## Notes



# What happens now and how do I have my say?

We understand and recognise the value of the feedback provided by members of the public during all engagements and consultations. Without this valuable feedback, the project development team would be unable to progress projects and reach a balanced proposal.

We are keen to receive your views and comments in regards to the following questions:

- Has the requirement for the project been clearly explained?
- Are there any additional factors, concerns, or environmental features that you consider important and should be brought to the attention of the project team?
- Based on the information provided do you agree with option 9 being taken forward to develop further?
- Following review of the provided information, how would you describe your understanding of the project?
- Overall, how do you feel about the project?

#### Comments

Your views and comments can be provided to the project team by completing the feedback form or by writing to our Community Liaison Manager. All feedback received will be assessed and the proposed options adapted where necessary.

# Recite

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.

#### Feedback

We will be seeking feedback from members of the public on this exhibition until **17 October 2023**.

#### Community Liaison Manager, Rose Hodgart





+44 (0) 7879 793652



1 Waterloo Street, Glasgow G2 6AY

#### Additional information

Information will also be made available via the project webpage and social media channels:

Follow us on Twitter: @ssencommunity

**Project website:** ssen-transmission.co.uk/projects/project-map/ beauly-denny-400kv-upgrade/



Please let us know if you require information in an adapted format such as paper copy, large print or braille and we will work with you to accommodate your preferences.

We are happy to accommodate all reasonable requests for adapted communications.

ssen-transmission.co.uk/projects/project-map/beauly-denny-400kv-upgrade/



# 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 Has the need for the project been clearly explained?
Yes No Unsure
Comments:
Q2 Are there any additional factors for the site selection that you consider important and should be brought to the attention of the project team?
Yes No Unsure
Comments:
Q3 Do you have any preference of which site should be selected or other comments regarding the potential site or project?
Option 4 Option 9 Option 10
Comments:
Q4 Following review of the provided information, how would you describe your understanding of the project?
Comments:
Q5 Overall how do you feel about the project? Comments:

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Q8 Wha Comments:	-	gement would you lil	ke to see as the p	roject progresse	25?	
Full name						
Address						
Telephone						
Email						
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lf you would	l like your com	ments to remain ano	nymous please tio	ck this box.		
Please submit your Post: Grampian Hou Email: BDUP@sse.co Online: ssen-transm Download: Comme The feedback form Any information give	completed form b use, 200 Dunkeld R om hission.co.uk/project ent forms and all th and all information en on the feedback		nny-400kv-upgrade/ event will also be avail n also be downloaded vlished anonymously a	from the project we s part of Scottish and		

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