

## 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) (previously National Grid Electricity System Operator) 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.

We're investing at least **£22 billion** into our region's energy infrastructure this decade, with the potential for this to increase to over **£30 billion**. This investment will deliver a network capable of meeting **20% of the UK's Clean Power 2030 target** and supporting up to **37,000 jobs, 17,500** of which will be base in Sectland

#### 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 transmission 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 subsea cables and Overhead Lines (OHL) 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 local 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.

#### here in Scotland.



### Find out more

Scan the QR code with your smartphone to find out more about how these policies have been assessed and determined. 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

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### As Transmission Operator for the north of Scotland, we enable electricity generators to connect to the transmission system by providing their connections which allow the electricity generated to be transported to areas of demand.

As such, we are required to provide a connection for Gilkes Energy Ltd's proposed Earba Pumped Storage Hydro (PSH) Scheme with an installed capacity of up to 1,800 MW to the transmission network.

Further information regarding the PSH Scheme can be found on Gilkes Energy Ltd website: **earbastorage.co.uk** 

### **Project Elements**

In order to facilitate this connection, we are proposing the following project elements:

- A new 400kV 'Coire Mashie' substation, located near Laggan
- A new 400kV underground cable connecting the Earba Pumped Storage Hydro Scheme to the proposed new Coire Mashie substation.

### New Earba 400kV Underground Cable

The Earba Pumped Storage Hydro Scheme requires connection to the transmission system. To facilitate this, a new 400kV underground cable is proposed.

The new underground cable would be:

- Connected from Earba Pumped Storage Hydro Scheme's on-site powerhouse located by the Southeast shore of Loch Earba to the new proposed Coire Mashie Substation.
- Approximately 15km in length depending on the route option that is chosen following consultation.

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



Western Isles

(4) Banniskirk

4

Orkney











# 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 next stage of the development process.

### Coire Mashie 400kV substation potential site

During this consultation, we are presenting our approach to developing the new 400kV substation required near Kinloch Laggan in the Highlands of Scotland for the Earba Pumped Storage Hydro connection.

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 the 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 Coire Mashie 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, SEPA, Historic Environment Scotland.

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



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# Our site selection process

We follow formal internal guidance to enable us to consistently and rigorously select sites for new substations. Each process has 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 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.

environmental requirements).

The connections into new and existing assets forms a crucial part of this assessment to reduce the need for additional new infrastructure.

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# The planning process

The outcome of the optioneering processes will be developments for which consents under the respective planning regime will be sought.

#### **Substations**

The substation application will

development,

including:

identify the proposed

• Site boundary clearly

any permanent and

and junctions onto

public highways.

• The proposed

shown in red (the Red

Line Boundary) including

temporary access routes

development in relation

permanent and temporary works including structures, buildings, perimeter fencing, drainage features, key electrical equipment, construction compounds and laydown areas.

to the site boundary

with dimensions of all

These require an application for planning permission to be submitted to the relevant Local Planning Authority (The Highland Council) under the Town and Country Planning (Scotland) Act 1997.

#### Underground cable

It is anticipated that the Underground Cable (UGC) will be undertaken using permitted development rights as set out in Class 40 1(a) of the Town and Country Planning (General Permitted Development) (Scotland) Order 1992 as amended.

#### UGC Associated Works

A temporary stone access track may be required to install the UGC.

A planning application for the stone track will be submitted to the Highland Council under the Town and Country Planning (Scotland) Act 1997 (as amended).

This will be a separate planning application to the substation application.

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

These 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).

#### Overhead line tie-ins Consenting Strategy

These transmission projects will be subject to environmental impact assessments required under the relevant consenting regimes.

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, underground cable and Section 37 application for OHL tie-ins

Site Selection carried out



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### Project timeline

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2025

• Spring: Site selection public consultation event

### 2026

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- Early Summer: Pre-Application public consultation(s)
- Autumn: Potential Planning Consent submission(s)

### 2027

• If Planning Consent granted complete discharge of Planning Conditions

### 2028

- Early 2028: All Planning Decision(s) Received
- Late Summer 2028: Construction and installation commences

### 2029

Construction and installation continues

20312031: Coire Mashie Construction Completion



### 2032

- Late 2032: Earba Pumped Storage Hydro Connection
  - Project Energisation









## **Substations**

We are planning to build a new 400kV Coire Mashie substation to accommodate additional equipment associated with the upgrade to the existing Beauly-Denny overhead line from 275kV to 400kV.

### 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 levels (step-up or step-down, for example 132kV steppingup 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.



### 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.

### About the New Coire Mashie 400kV Substation

It is preferential to locate the new substation in close proximity to the proposed Earba Pumped Storage Hydro Substation and the existing Beauly –Denny overhead line. The new 400kV substation to the South of Laggan will consist of:

- A 400kV double busbar air insulated switchyard comprising of 25 bays;
- A platform for Air Insulated Switchgear (AIS), approximately 700 x 370m.
- Overhead line tie ins from the new substation to the existing Beauly – Denny overhead line; and
- Upgrade existing or provide new access

Earthworks will be required in developing the platform;

tracks, temporary construction compounds and construction lay down areas.

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# Site selection options considered

## An initial 10 km Area of Search was developed to identify potential sites that could support the development of a substation site.

The initial Area of Search was established from a central point to the north of Loch Laggan, near to the Beauly to Denny overhead line, and then expanded out by 10 km in each direction, to allow for a thorough consideration of potentially suitable locations.

As such, five site options were identified at Stage 1 and it was agreed amongst the project team to take all sites forward to detailed site selection at Stage 2.

As part of the works associated with Stage 1, an initial 10 km Area of Search was developed to identify potential site options. Although the Area of Search was extensive, numerous constraints including environmentally designated, sensitive habitats, waterbodies and terrain resulted in the only feasible site options being clustered within the Glen Shirra and Strath Mashie areas.



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### Overview of the Coire Mashie – Site selection process

### Stage 0 – Strategic options assessment

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.

The following requirements were identified as essential for the new site:

- Proximity to the existing Beauly Denny overhead line to minimise the amount of new infrastructure required to connect to the network.
- Large enough to accommodate the required substation footprint, together with associated landscaping, contractor compounds, access and new connection routes.
- Additional space for future expansion if required.
- In areas which do not contain environmental designations and minimise impacts on local environmental receptors.

### Stage 1 - Initial site screening

- Five site options were identified within a 10km search window either side of the Beauly Denny overhead line, running 5km north and south of the proposed Earba Pumped Storage Hydro Substation. This identification was performed using publicly available data and multi criteria analysis (MCA) to provide high level constraints information.
- Assessment of the five options were undertaken against the key requirements and using the Red, Amber, Green (RAG) matrix from our Site Selection Guidance. This resulted in three of the five options being discounted from further assessment based on environmental and technical considerations. However, all Site Options were taken forward to Stage 2, due to the numerous environmental and engineering constraints.

### Stage 2 - Detailed site selection

Further appraisal and comparison of the shortlisted options have been undertaken based on the RAG matrix criteria within our Site Selection Guidance. Further details of the Stage 2 process can be found on the following pages.

RAG Assessment Criteria	Performance	Comparative appraisal
Stages 1 and 2 of the site selection process apply a Red Amber Green (RAG) risk assessment scoring	Most preferred	Low potential for the development to be constrained
economical aspects		

The criteria is shown in the opposite diagram.

Least

Intermediate potential for the development to be constrained

High potential for the development to be constrained

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### Overview of the Coire Mashie Site options



Legend Substation Site Option

Site Option 1



Looking west from the northern extent of Site Option 1





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### Overview of the Coire Mashie Site options



Legend Substation Site Option Site Option 2 Looking south towards forestry edge at NGR 257570, 789996 - Site Option 2





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### Overview of the Coire Mashie Site options



Legend Substation Site Option Site Option 3



Looking from track to the north of Site Option 3





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### Overview of the Coire Mashie Site options





Looking towards channels across peatland area at NGR 253712, 791344 - Site Option 4





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### Overview of the Coire Mashie Site options



Legend Substation Site Option Site Option 5







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### Red Amber Green (RAG) assessment – Engineering

	Category	Site 1	Site 2	Site 3	Site 4	Site 5							
	Connectivity												
	Existing circuits/networks	А	G	R	А	G							
	Future development possibilities	R	R	R	R	R							
	Interface with SSEN Distribution and Generation	G	G	R	R	G							
	DNO connection	A	R	R	R	R							
	Footprint requirements												
	Technology	R	R	R	R	R							
	Adjacent land use	А	А	А	A	A							
	Space availability	А	А	А	А	R							
	Hazards												
	Unique hazards	А	G	R	R	А							
	Existing utilities	G	G	R	R	G							
_	Ground conditions												
Engineering	Topography	R	А	А	А	G							
	Geology	А	R	R	R	R							
	Environmental conditions												
	Elevation	R	R	R	R	R							
	Salt pollution	G	G	G	G	G							
	Flooding	А	G	G	R	A							
	Carbon footprint	R	A	A	A	R							
	SF <sub>6</sub>	G	G	G	G	G							
	Contaminated land	G	G	G	G	G							
	Noise	R	R	А	А	R							
	Construction access												
	Substation access road (from public road)	A	A	R	R	R							
	Transformer delivery route	А	А	А	А	R							
	Operation and maintenance												
	Access	А	А	R	R	R							

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### Red Amber Green (RAG) assessment – Environmental

	Category	Site 1	Site 2 Site 3		Site 4	Site 5						
	Natural heritage											
	Designations	А	А	А	А	R						
	Protected species	А	А	А	А	R						
	Habitats	A	А	R	R	А						
	Ornithology	А	G	R	R	G						
	Hydrology/Geology	А	А	А	А	А						
	Cultural heritage											
	Designations	А	А	G	А	A						
	Cultural heritage assets	G	R	G	G G							
	Landscape and visual											
ental	Designation	А	А	R	R	R						
ronme	Landscape character	А	G	R	R	R						
Envii	Visual	G	А	A	A	R						
	Land use											
	Agriculture	G	G	G	G	G						
	Woodland/forestry	А	R	G	G	R						
	Recreation	А	А	А	А	А						
	Planning											
	Policy	А	А	R	R	R						
	Proposals	G	G	R	А	G						
	Cost											
	Capital	G	G	G	G	G						

Operational	G	G	G	G	G
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In determining the preferred site option on environmental and engineering grounds, consideration has been given to the particular constraints and RAG ratings identified for each of the environmental and engineering topics considered in this appraisal.







# Environmental considerations

Constraints in the vicinity of the Site Options include a few scattered properties within Strath Mashie (including at Aberarder Lodge, Kinloch Laggan, Gallovie, Inverpattack, Feagour and Strath Mashie); and the Spey Glen (including shooting lodges and estate properties at Glenshero Lodge, Sherramore and Garvamore).

In addition, there are several environmentally designated sites, including Creag Meagaidh Special Protection Area (SPA), Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR), River Spey SAC and SSSI, Monadhliath SAC and SSSI, and Ben Alder and Aonach Beag SAC and SSSI. All the Site Options are within the Cairngorms National Park. The area comprises mountainous terrain, which attracts visitors and recreational users to its munro and mountain summits and other outdoor activities.



This figure shows some of the key environmental constraints which have been considered when assessing Site Options. When assessing potential Site Options, consideration has been given to minimising potential impacts on all of the habitats, including ancient woodland and peatland.





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## Site selection – Environmental

Local environmental and social aspects are a key consideration in selecting the optimal site for the project. As part of site selection, environmental assessments and surveys have been undertaken to help inform the process.

This will continue as we move from site selection to the consenting process to support a planning application. 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 of the booklet.

### Natural heritage

The project has assessed and will continue to assess the risk to species and habitats in the area and in consultation with the key stakeholders will give full consideration to any risks highlighted.

Site selection findings include:

- Suitable habitat is present within the local area of all site options for protected species.
- All site options are hydrologically connected to the River Spey SAC/SSSI. Site Options 1 and 2 directly intersect tributaries of River Mashie.
- Site Options 3, 4 and 5 are ecologically connected to the Creag Meagaidh designated sites (SAC, SPA, SSSI and NNR).
- Biodiversity Net Gain (BNG) figures favour Site Options 2 and 5 as they are dominated by Low distinctiveness plantation woodland.

### **Tourism and Recreation**

The primary concern for tourism and recreation is the visual impact on popular tourist facilities.

- Site Option 1 is located across Scottish Hill Track (Track 200 Dalwhinnie – Feagour).
- Site Option 2 includes a short section of the Core Path UBS25 Drum and Aird Path.
- Site Options 3 and 4 are crossed by tracks through Glen Shirra.
- Site Option 5 is adjacent to Garva Bridge (General Wade's Military Road), which forms part of Scottish Hill Track (SHT236a).

### Forestry

- Site Options 1, 2 and 5 are located within commercial forestry. Felling of the commercial woodland will likely be required and the whole section may need to be removed to avoid wind blow.
- No commercial forestry is present within, or
  in close provimity to Site Options 3 and 4

### Landscape and visual

- All options are located within the Cairngorms National Park and the Landscape Character Type 126: Upland Glen – Cairngorms.
- Views from properties would be relatively limited for most of the site options.
   However, there are a number of properties close to Site Option 5.
- Site Options 1 & 2 present better opportunities for screening landscape and visual effects.
- Development on any option is unlikely to affect the physical characteristics, however concerns relate to the potential visual impact of the development affecting the landscape character.

### Hydrology and geology

- All Site Options lie entirely within the River Spey surface water catchment.
- Peat is likely to be present across all Site Options. Site Options 1 and 3 are located in areas of Class 2 priority peatland. Further assessment of peat, informed by peat probing and condition assessment, will be required.



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## Site selection – Engineering

Engineering site selection involves determining the optimal design and location based on a number of technical factors, examples of which can be seen 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 and the assessments and surveys undertaken are supplemented by additional technical ones, such as a Ground Investigation.

#### 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.

Work on refining the design will continue alongside the environmental assessments as we move from site selection to the consenting process to support a planning application and a Section 37 application.

### **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.

#### 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.



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### Site Selection – Overall assessment

### Coire Mashie substation Site Options 3, 4 and 5 all have multiple engineering constraints.

Site Option 2 received overall best rating with respect to considered RAG criteria. Site Option 1 also received similar rating and could also be considered.

#### Connectivity

In terms of overhead line connectivity all Site Options provide similar possibilities.

The existing Beauly-Denny overhead line, with its associated towers, would cross over substation Site Options 1, 3 and 4.

Therefore, it could be expected that Site Options 1, 3 and 4 would have a prolonged project programme in comparison to Site Options 2 and 5.

#### **Ground conditions**

Site Option 1 comprises steeply sloping land ranging from 300m to 400m OD with gradients up to c.1 in 6 (10°).

A full Peat Management Plan and Peat Landslide and Hazard Risk Assessment will be undertaken.

There are no other significant geological restrictions at any of the five options.

#### **Environmental conditions**

All of the site options are approximately 300m above Ordnance datum and with calculated high wind speed around 58 m/s.

Site Options 3 and 4 pose the greatest flood risk, due to the presence of several watercourses and significant areas of peat.

Noise impact is determined at this stage by proximity to dwellings, and Site Options 1, 2 and 5 are identified as 'Highly constrained'.

#### Access

Site Options 1 and 2 are anticipated to be accessed via the existing FLS forestry tracks.

Site Options 3 and 4 are proposed to be accessed via the existing Ardverikie Estate tracks.

Site Option 5 would likely be accessed through the existing General Wade's Military Road.





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### Coire Mashie Site Option 1 – Potential substation site

The potential site option we believe best balances the environmental and technical factors under consideration for the Coire Mashie 400kV substation is **option 1**. The key environment and engineering reasons for this are set out below.

#### **Environment**

Environmentally, Site Option 1 was rated the most preferable in terms of habitat constraints with less potential protected habitat areas than the other Site Options.

Additionally, Site Option 1 should require less extensive felling than Site Option 2. However, Site Option 1 would likely require greater earth works and cut/fill in comparison to Site Option 2 to establish a level site. Site Option 2 would intersect and be sited close to the non-designated cultural heritage asset of the Drum an Aird township, which is of Regional importance.

Given these constraints, it is considered that Site Option 1 is preferred over Site Option 2, and this is reflected in the RAG ratings, with Site Option 1 being the only option with no Red RAG rating for any environmental parameters.





#### Engineering

In terms of engineering considerations Site Option 2 is the best potential option. The most significant constraints of Site Option 1 are related to Topography and Carbon footprint criteria.

The majority of the site comprises steeply sloped land and significant volumes of cut/ fill are anticipated to be required to form a level platform. This also contributes to higher carbon footprint, together with significant works required for primary access.

It is considered Site Option 1 cut and fill (earthworks) can be mitigated better at the next stage with a detailed Topographic Survey.

	Key topics relating to site									
Option	Existing circuits/ networks	Topography	Substation access road (from public road)	Cultural Heritage Assets	Forestry					
1	А	R	А	G	А					

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## 400kV Underground cable

### The developer has requested an underground cable to facilitate their connection request to the new Coire Mashie substation.

Cabling at this voltage can be very challenging, particularly from an engineering and construction perspective, whilst the topography of this area provides further constraints. However, we are working to try and identify a deliverable underground cable route which would comprise the following:

- The proposed design would use 2 cables per phase, 2500mm<sup>2</sup> Aluminium conductor, XLPE cable. Opportunities to reduce the number of cables per phase will be reviewed through detailed design.
- The number of joint bays situated along the route will depend on selected route option and substation location option. This will be confirmed at the next stage.
- The cables would be ducted throughout the route to minimise the time that trenches are open and enable rapid restoration of private land and roads.
- The design makes provision for the cables being buried at increased depths to cross under obstructions and other services at depths of up to 5m.



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## Earba 400kV underground cable

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

The underground cables are classed as Permitted Development Rights and therefore statutory public consultation is not a requirement, however we will be including further information on route selection and the optimal route at the next public consultation event for the proposed Coire Mashie Substation in early summer 2026. We will welcome your feedback on the proposed route options presented on the map below.







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### Underground cable – Environmental constraints



The key constraints and considerations for all route options relate to impacts on sites designated for nature conservation (particularly the Creag Meagaidh designated sites, specifically the NNR / SSSI / SAC / SPA), ancient woodland, sensitive habitats and peatlands, and landscape and visual effects, including those on the Cairngorms National Park.

habitat. Areas likely to be of high conservation value Class 2 - Nationally important carbon-rich solls, deep peat and priority peatland habitat. Areas of potentially high conservation value and restoration potential





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### Red Amber Green (RAG) assessment – Engineering & environmental

	Category	Route Opt. 1	Route Opt. 2	Route Opt. 3	Route Opt. 4	Route Opt. A	Route Opt. B1	Route Opt. B2	Route Opt. B3	Route Opt. C	Route Opt. D	Route Opt. E	Route Opt. F	Route Opt. G
	Infrastructure crossings													
	Major crossings (132V, 275KV, Rail, 200+m wide river, navigable canal gas or hydro pipeline)	G	G	R	R	A	R	R	R	A	A	R	R	R
	Road crossings	G	R	R	R	R	R	R	G	Α	Α	G	R	G
	Environmental Desi	ign												
	Elevation	R	R	R	R	R	R	R	R	R	R	R	R	R
	Atmospheric Pollution	G	G	G	G	G	G	G	G	G	G	G	G	G
	Contaminated Land	А	А	А	А	А	А	А	А	А	А	А	А	А
	Flooding	G	G	Α	G	G	G	G	G	G	G	G	R	G
	Ground Conditions													
ng	Terrain	R	R	R	R	R	R	R	R	R	R	R	R	R
eeri	Rock	R	R	R	R	R	R	R	R	R	R	R	R	R
ıgin	Peat	R	R	R	R	Α	R	R	Α	Α	Α	Α	R	R
E	Construction Maint	enance	;											
	Access	G	G	G	G	G	G	G	G	G	G	G	G	G
	Angles of Deviation	G	А	R	А	G	А	G	G	А	G	G	А	А
	Cable Haul Road	Α	R	R	R	G	R	Α	G	R	R	G	R	R
	Proximity													
	Windfarms	G	G	G	G	G	G	G	G	G	G	G	G	G
	Communication Masts	G	G	G	G	G	G	G	G	G	G	G	G	G
	Urban Environments	G	G	G	G	G	G	G	G	G	Α	G	G	G
	Metallic Pipelines	G	G	Α	G	G	G	G	G	G	G	G	Α	Α
	Reactive Compensation	G	Α	R	А	G	А	G	А	Α	G	А	Α	R
	Joint Bays	Α	R	R	R	G	Α	Α	G	Α	R	G	R	R
	Natural Heritage													
	Designations	А	А	R	А	А	А	А	А	G	G	G	А	R
	Protected Species	A	A	R	А	А	А	A	А	А	А	А	А	А
	Habitats	А	A	R	R	А	R	A	А	A	А	R	R	R
	Ornithology	А	А	R	R	G	R	А	G	G	G	G	А	А
	Geology, Hydrology & Hydrogeology	А	A	A	A	A	А	А	А	A	А	A	А	А
	Cultural Heritage													
	Designations	G	G	G	G	G	G	G	G	G	G	G	G	G
tal	Cultural Heritage Assets	G	G	А	R *	G	R *	R *	А	R *	G	R	G	G
nen	People													
vironr	Proximity to Dwellings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
En	Landscape and Visu	ıal												
	Designations	А	А	А	R	А	А	А	G	G	R	G	А	А
	Character	А	А	А	R	А	G	А	G	G	R	G	А	G
	Visual	G	G	G	G	G	G	А	G	G	А	G	G	G
	Land Use													
	Agriculture	G	G	G	G	G	G	G	G	G	G	G	G	G
	Forestry	А	А	R	А	А	А	А	А	А	А	А	G	А
	Recreation	G	G	G	G	G	G	G	G	G	G	G	G	G
	Planning													
	Policy	А	А	R	R	А	R	R *	А	R *	R	R	R	R
	Proposals	А	А	А	А	А	G	G	А	G	G	G	А	А

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### Frequently Asked Questions (FAQs)

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

A detailed noise assessment will be completed and included in an Environmental Impact Assessment (EIA).

This will consider noise impacts from the substation, cumulative noise impacts as well as consideration of any mitigation required.

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

SSEN Transmission have undertaken a number of environmental surveys to ensure that the proposed works will have as little impact upon the local environment as possible. The project team 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 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 Perth and Kinross 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.



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