

TRANSMISSION

# New Coire Mashie 400kV Substation

Site Selection Public Consultation Booklet





## **Contents**

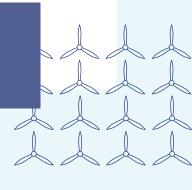
Powering change together		Environmental considerations	17
Project overview	2	Site selection – Environmental	18
What we are consulting on	3	Site selection – Engineering	19
Our site selection process	4	Site Selection – Overall assessment	20
The planning process	5	Coire Mashie Site Option 1  – Potential substation site	21
Project timeline	6	400kV Underground cable	22
Substations	7	Earba 400kV underground cable	23
Site selection options considered	8	Underground cable – Environmental constraints	24
Overview of the Coire Mashie  – Site selection process	9	Red Amber Green (RAG) assessment  – Engineering & environmental	25
Overview of the Coire Mashie Site options	10	Frequently Asked Questions (FAQs)	26
Red Amber Green (RAG) assessment – Engineering	15	Notes	27
Red Amber Green (RAG) assessment  – Environmental	16	Have your say	28
		Your feedback	29

## The consultation events will be taking place on:

Wednesday 28 May 2025, 3pm - 7pm

Laggan Village Hall, Laggan Bridge by Newtonmore, Inverness-shire, PH20 1AN





# 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 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.

#### 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.

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

# **Project overview**

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:

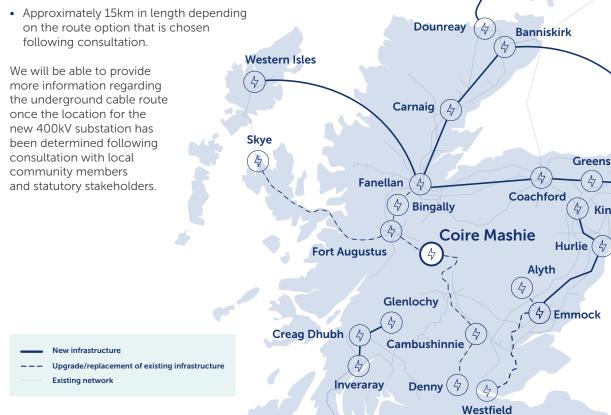
- A new 400kV 'Coire Mashie' substation, located near Laggan
- A new 400kV underground cable connecting the Earba Pumped Storage Hydro Scheme to the proposed new Coire Mashie substation.

#### 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.



Crossaig

Peterhead/

Kintore

**Netherton hub** 

## 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.



## 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 0: Strategic options assessment Stage 1: Initial site screening Stage 2: Detailed site selection Pre-application: Proposed site confirmation Concept design Consent Design freeze Environmental assessment Proposed site consultation Consent application

#### 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 ther 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 processes will be developments for which consents under the respective planning regime will be sought.

#### **Substations**

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.

#### 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).

# The substation 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.

#### **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).

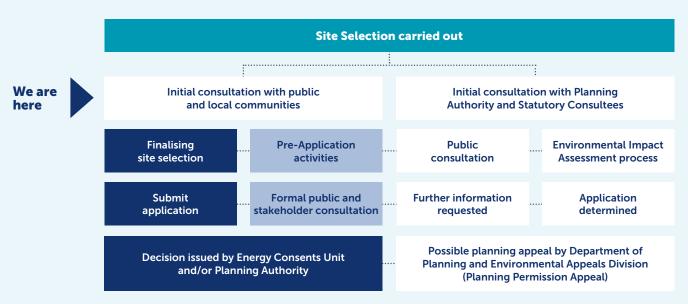
This will be a separate planning application to the substation application.

## Overhead line tie-ins Consenting Strategy

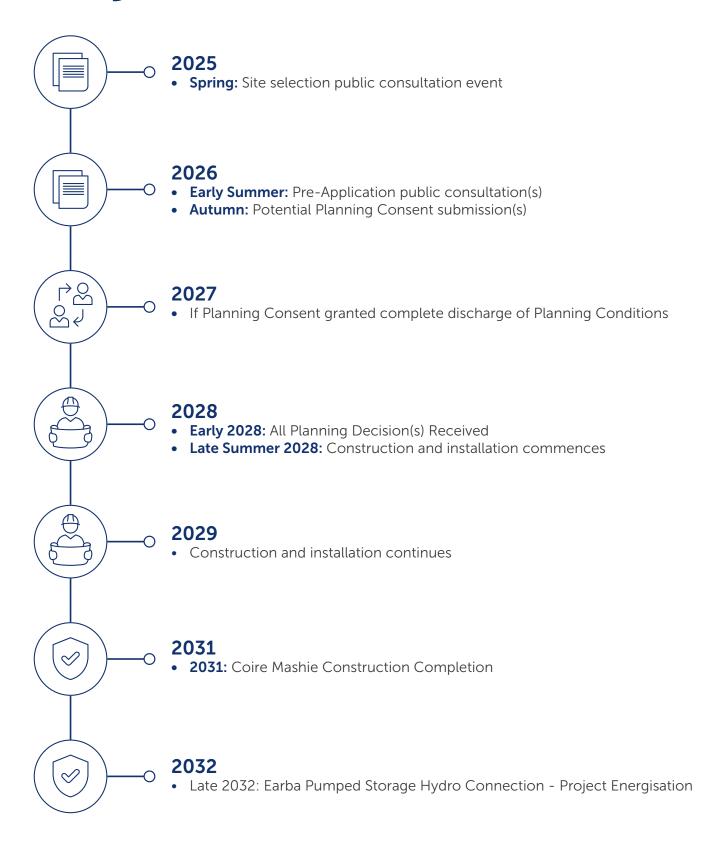
These transmission projects will be subject to environmental impact assessments required under the relevant consenting regimes.

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



# **Project timeline**



## **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 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.



## 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. 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.

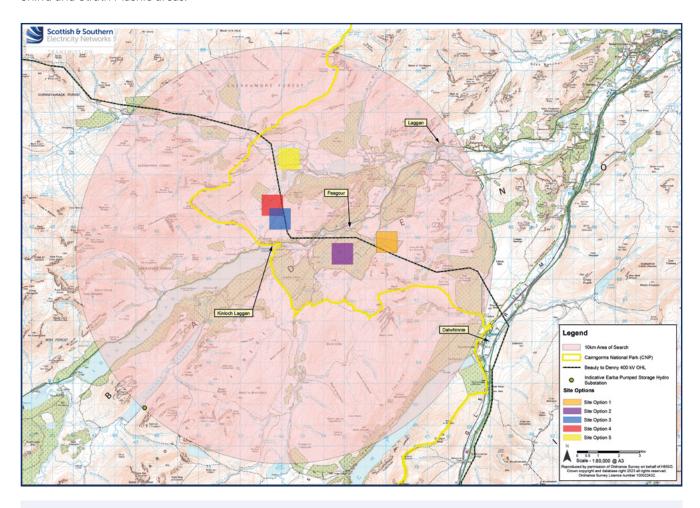
# Site selection options considered

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.



Map available to download from Project Webpage: ssen-transmission.co.uk/new-coire-mashie-and-earba

# 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.

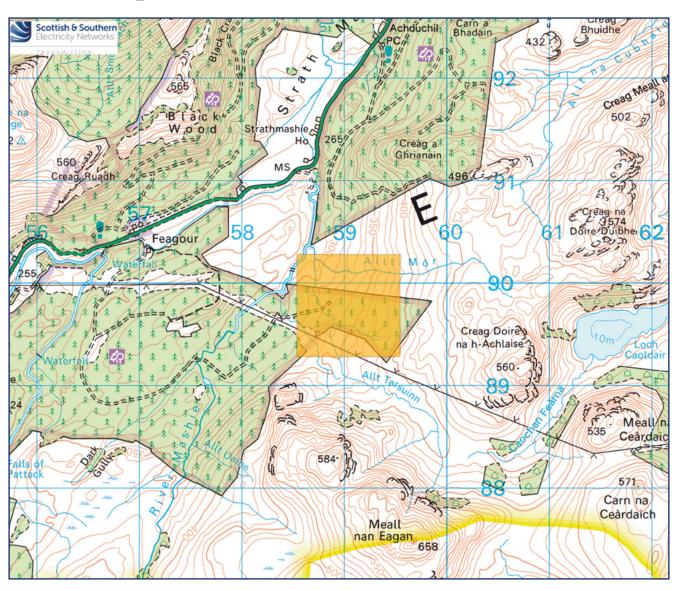
#### **RAG Assessment Criteria**

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 opposite diagram.

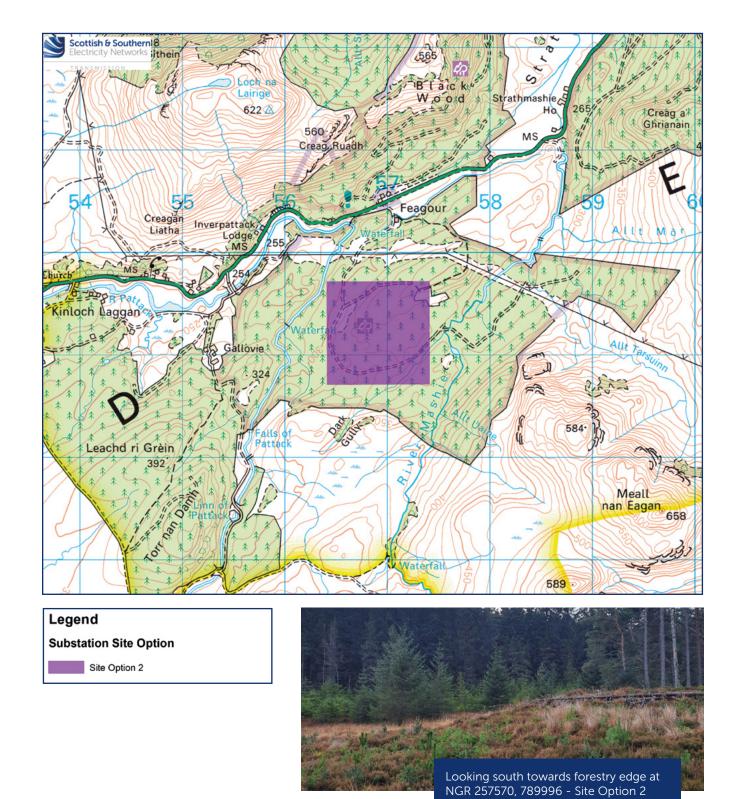
Performance	Comparative appraisal
Most preferred	Low potential for the development to be constrained
	Intermediate potential for the development to be constrained
Least preferred	High potential for the development to be constrained

# Overview of the Coire Mashie Site options

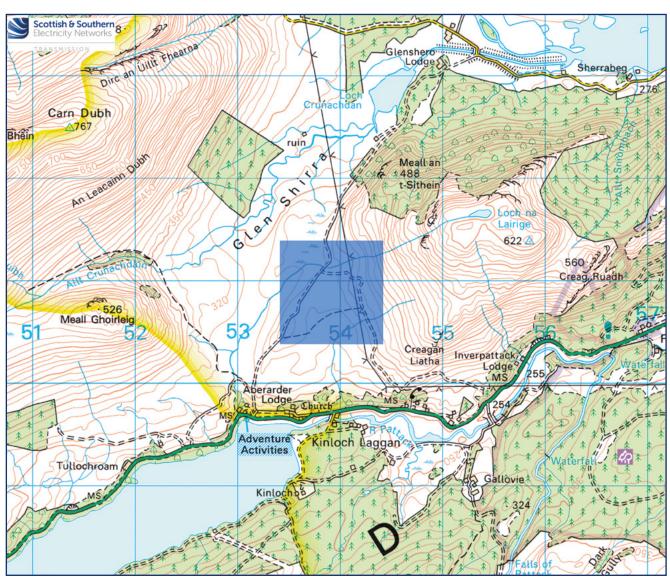






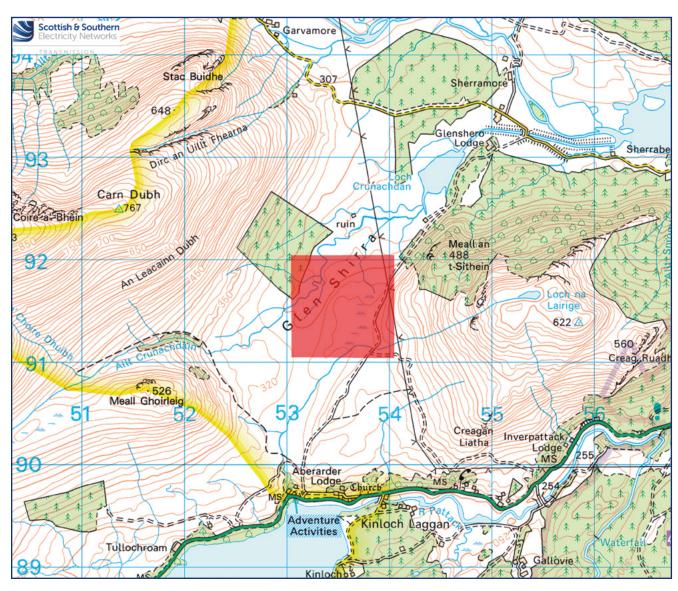


# Overview of the Coire Mashie Site options





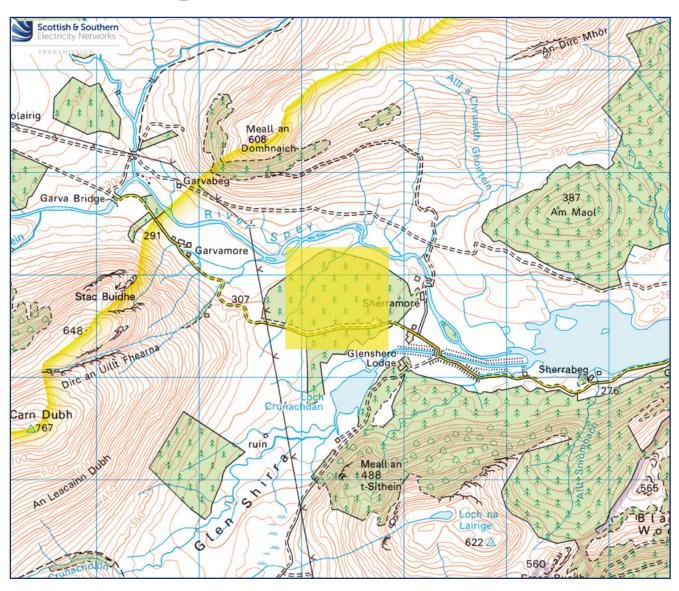








# Overview of the Coire Mashie – Site options







# 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	А	R	R	R	R
	Footprint requirements					
	Technology	R	R	R	R	R
	Adjacent land use	А	А	А	А	A
	Space availability	Α	А	Α	Α	R
	Hazards					
	Unique hazards	А	G	R	R	A
	Existing utilities	G	G	R	R	G
<b>D</b>	Ground conditions					
eerin	Topography	R	А	А	А	G
Engineering	Geology	Α	R	R	R	R
	Environmental conditions					
	Elevation	R	R	R	R	R
	Salt pollution	G	G	G	G	G
	Flooding	Α	G	G	R	A
	Carbon footprint	R	А	А	А	R
	SF <sub>6</sub>	G	G	G	G	G
	Contaminated land	G	G	G	G	G
	Noise	R	R	А	Α	R
	Construction access					
	Substation access road (from public road)	А	А	R	R	R
	Transformer delivery route	А	A	A	А	R
	Operation and maintenance					
	Access	А	А	R	R	R

## Red Amber Green (RAG) assessment – Environmental

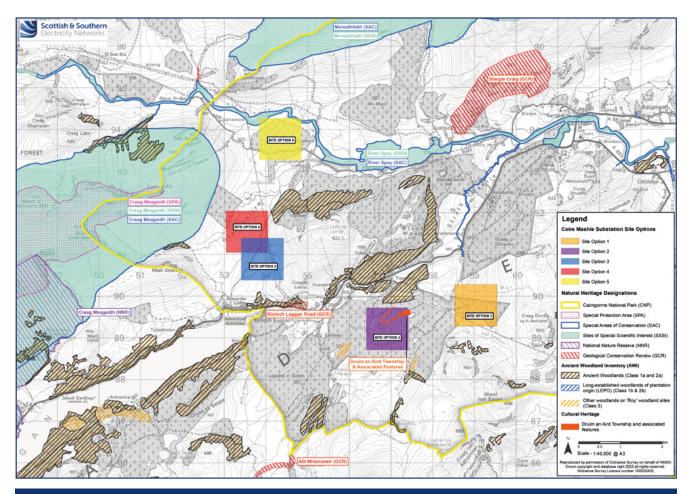
	Category	Site 1	Site 2	Site 3	Site 4	Site 5
	Natural heritage					
	Designations	А	А	А	А	R
	Protected species	А	А	А	А	R
	Habitats	А	А	R	R	А
	Ornithology	А	G	R	R	G
	Hydrology/Geology	Α	А	А	А	А
	Cultural heritage					
	Designations	А	А	G	А	А
	Cultural heritage assets	G	R	G	G	G
	Landscape and visual			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

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.

# 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.

#### 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 proximity, 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.



# 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.

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.

#### 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.

#### **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 - 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'.

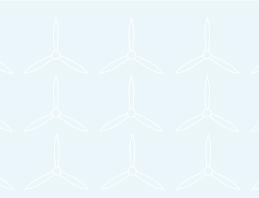
#### Access

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.





# 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**

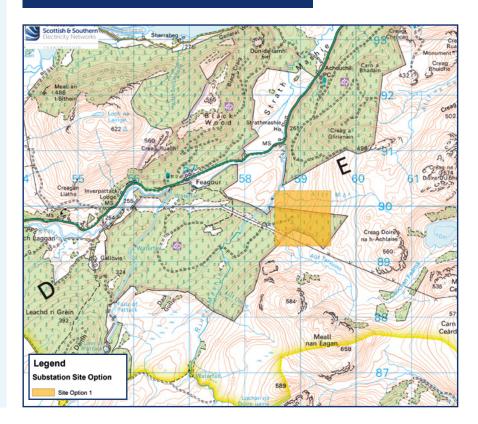
Environmentally, Site Option 1 was rated the most preferable in terms of habitat constraints with less potential protected habitat areas than the other Site Options.

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 nondesignated 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.

#### Option 1 - potential substation site



#### **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 topi	cs relating	to site		
Option	Existing circuits/ networks	Topography	Substation access road (from public road)	Cultural Heritage Assets	Forestry
1	Α	R	Α	G	Α

# 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:

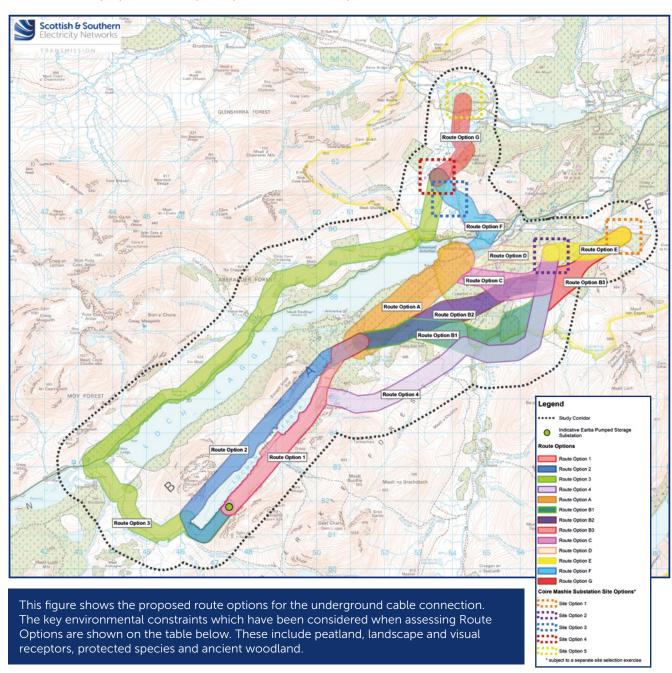
- The proposed design would use 2 cables per phase, 2500mm<sup>2</sup> Aluminium conductor, XLPE cable.
   Opportunities to reduce the number of cables per phase will be reviewed through detailed design.
- The number of joint bays situated along the route will depend on selected route option and substation 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.



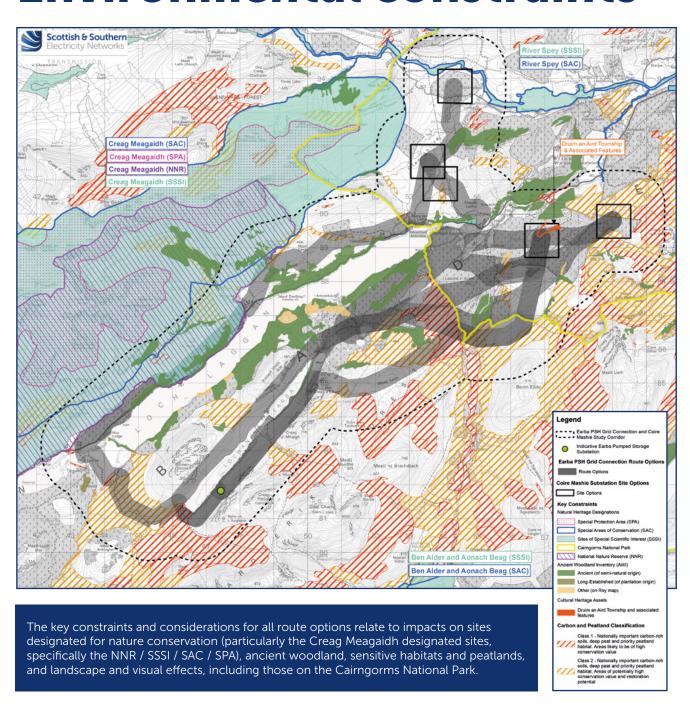
# Earba 400kV underground cable

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.



# Underground cable – Environmental constraints



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

Category			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	А	А	R	R	R
	Road crossings	G	R	R	R	R	R	R	G	Α	Α	G	R	G
	Environmental Design													
	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	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
	Flooding	G	G	Α	G	G	G	G	G	G	G	G	R	G
	Ground Conditions													
ō	Terrain	R	R	R	R	R	R	R	R	R	R	R	R	R
erin	Rock	R	R	R	R	R	R	R	R	R	R	R	R	R
Engineering	Peat	R	R	R	R	Α	R	R	Α	Α	Α	Α	R	R
Eng	Construction Maintenance													
	Access	G	G	G	G	G	G	G	G	G	G	G	G	G
	Angles of Deviation	G	Α	R	Α	G	Α	G	G	Α	G	G	Α	Α
	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
	Design													
	Reactive Compensation	G	Α	R	Α	G	Α	G	Α	Α	G	Α	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	А	А	R	А	Α	А	А	А	А	А	А	А	А
	Habitats	Α	А	R	R	А	R	Α	А	А	Α	R	R	R
	Ornithology	Α	А	R	R	G	R	А	G	G	G	G	А	А
	Geology, Hydrology & Hydrogeology	А	Α	А	А	А	А	Α	А	А	Α	А	А	А
	Cultural Heritage													
	Designations	G	G	G	G	G	G	G	G	G	G	G	G	G
_	Cultural Heritage Assets	G	G	А	R *	G	R *	R *	Α	R *	G	R	G	G
Environmental	People													
me	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
iror	Landscape and Visual													
Env	Designations	А	А	А	R	А	А	А	G	G	R	G	А	А
	Character	Α	А	А	R	А	G	Α	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 *	Α	R *	R	R	R	R
	Proposals	А	А	А	А	А	G	G	Α	G	G	G	А	А

# 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.



## **Notes**

# Have your say

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

#### The feedback period

We will accept feedback from now until 28th June 2025.

#### How to provide feedback

Submit your feedback online by scanning the QR code on this page or via the form on our project webpage at: ssen-transmission.co.uk/new-coire-mashie-and-earba

Email the feedback form to our Community Liaison Manager or write to us enclosing the feedback form at the back of this booklet.

#### What we're seeking views on

We want you to share your thoughts and opinions on our plans, where you think we can make improvements and concerns about the impact of our work.

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

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

## 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.

#### **Our Community Liaison Team**

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

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

#### **Community Liaison Manager**

#### Lisa Marchi-Grey

Community Liaison Manager

SSEN Transmission 10 Henderson Road, Inverness, IV1 1SN

E: lisa.marchi@sse.com T: 07825 015 507



#### Additional information

The best way to keep up to date is to sign up to project updates via the project webpage: ssen-transmission.co.uk/new-coire-mashie-and-earba



You can also follow us on social media



SSEN-Transmission



#### SSETransmission

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.

## 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.

Q1.	Has the requ	uirement for	the project been clearly explained?	
	Yes	No	Unsure	
	Comments:			
02				
QZ.			factors, concerns, or environmental features that you should be brought to the attention of the project team?	
	Yes	No	Unsure	
	Comments:			
07	Da			
GS.			ence of which site is selected or other comments site or project?	
	Site 1	Site 2	Site 3 Site 4 Site 5	
	Comments:			

Q4. Following review of the information provided, how would you describe your understanding of the project?  Comments:
Q5. Do you have any preference for which underground cable route option is selected or any other comments regarding the potential route options?  Comments:
Q6. Overall, how do you feel about the project?  Comments:
Full name
Address
Telephone
Email
If you would like your comments to remain anonymous please tick this box.
We would like to send you relevant communications via email such as invitations to stakeholder events, surveys, updates on projects, services and future developments from the Scottish and Southern Electricity Networks group listed below. If you are happy to receive email updates please opt in by ticking the box below. You can unsubscribe at any time by contacting us at <b>stakeholder.admin@sse.com</b> or by clicking on the unsubscribe link that will be at the end of each of our emails.
For information on how we collect and process your data please see our privacy notice available at today's event. This can also be obtained online at <b>ssen-transmission.co.uk/privacy</b>
If you would like to be kept informed of progress on the project please tick this box.

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

Post: SSEN Transmission, 10 Henderson Road, Inverness, IV1 1SN Email: lisa.marchi@sse.com

 $\textbf{Online:} \ ssen-transmission.co.uk/new-coire-mashie-and-earba$ 

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

The feedback form and all information provided in this booklet can also be downloaded from the dedicated website: ssen-transmission.co.uk/new-coire-mashie-and-earba

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

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

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