Scottish & Southern Electricity Networks

TRANSMISSION

# Tomchrasky Wind Farm Connection

Route options consultation

October 2024

ssen-transmission.co.uk/tomchrasky

# Contents



**The consultation events will be taking place on:**

**Tuesday 29 October 2024, 4–7.30pm**
Cannich Hall, Cannich, IV4 7LJ

**Wednesday 30 October 2024, 2-7pm**
Glenmoriston Millenium Hall,
Invermoriston, IV63 7YJ



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

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

## Working with you

We understand that the work we do can have an impact on communities. So we're committed to minimising our impacts and maximising all the benefits that our developments can bring to your area. We're regularly assessed by global sustainability consultancy AccountAbility for how we engage with communities. That means we provide all the information you need to know about our plans and how they will impact communities like yours. The way we consult is also a two-way street. 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 the transmission license holder in the north of Scotland, we have a duty under Section 9 of the Electricity Act 1989 to facilitate competition in the generation and supply of electricity. We have obligations to offer non-discriminatory terms for connection to the transmission system, both new generation and for new sources of electricity demand.**

Subject to planning consent, we are required to connect the Tomchrasky Wind Farm to the transmission network. To facilitate this, we are proposing to construct a new single circuit 132kV overhead line from the Tomchrasky Wind Farm 132kV substation to the new Bingally substation. Under our Network Operator's License, this connection should be efficient, coordinated and economic, whilst having the least possible impact on the environment.

The proposal is a single circuit 132kV trident pole arrangement to support the overhead line running over a distance of approximately 22 kilometers.

The average height of the trident poles is 10–18 meters, with an average span of between 75–100 meters. A number of new permanent and temporary accesstracks will also be required.

At times during construction, traffic management will be required, and information will be shared on this in due course.

Any works associated with new equipment at the Tomchrasky Wind Farm substation are included within the Wind Farm planning application.

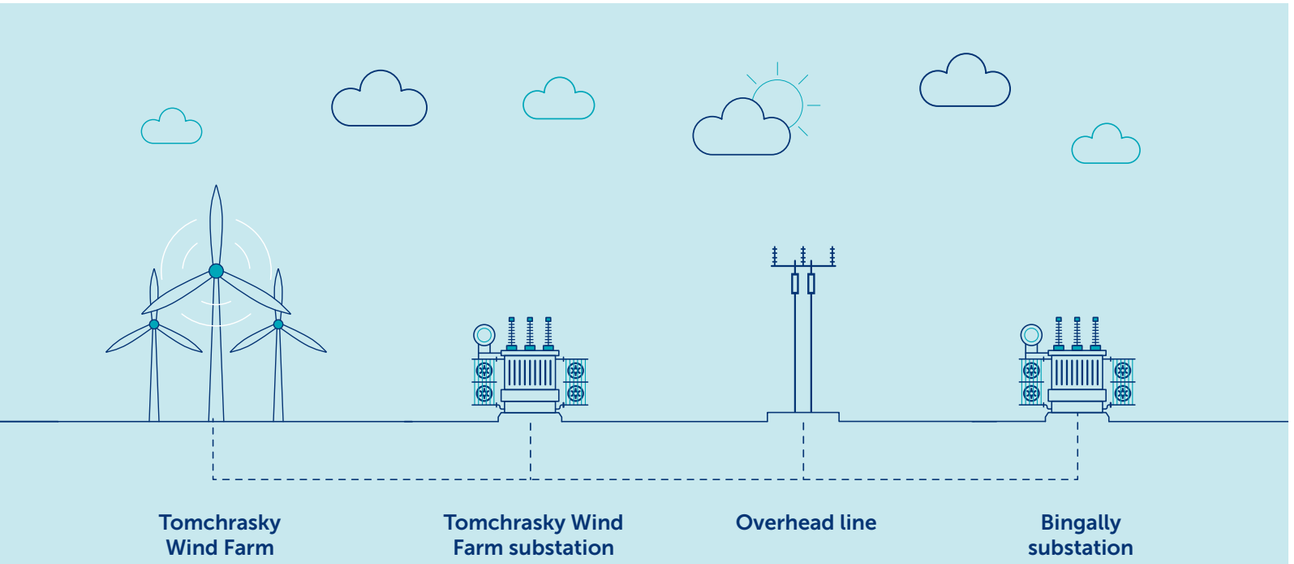



Diagram not to scale, for illustration purposes only





# Project timeline

**Summer 2024**
- Commencement of environmental and engineering assessments

**Autumn 2024**
Route consultation

**Summer 2025**
- Alignment consultation

**Spring 2026**
- Section 37 application submitted*

**2027**
- Spring: Section 37 consent determined
- Autumn: Construction commences (subject to consent)

**Summer 2029**
- Construction completion

*Section 37 consent for the OHL is required under the Electricity Act 1989. The application is determined by Scottish Ministers

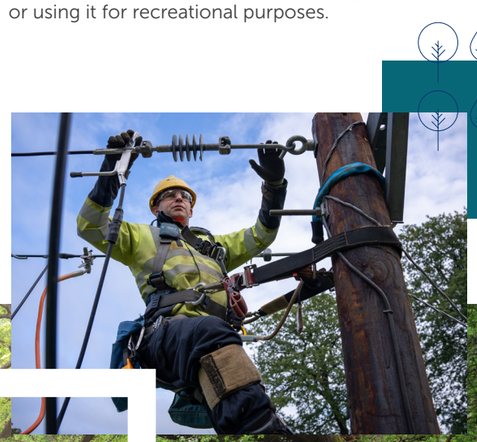
# Our overhead line routeing and design process

## We have developed and implemented formal Guidance for the selection of routes and alignments for new Overhead Lines (OHL).

The main aim of the Guidance is to provide a consistent approach to the selection of new OHL alignments and is underpinned by our statutory obligations to:

**'Develop and maintain an efficient, coordinated and economical electricity transmission system in its licenced area'** and in so doing, to **'have regard to the desirability of preserving the natural beauty, of conserving flora, fauna and geological and physiographical features of special interest and protecting sites, buildings and objects of architectural, historic or archaeological interest; and do what we reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites buildings or objects'.**

These duties capture the principal objective of the routeing process which is to balance technical and cost considerations with environmental considerations, to select a proposed alignment which is economically viable, technically feasible, minimises impacts on important resources or features of the environment and reduces disturbance to those living in it, working in it, visiting it or using it for recreational purposes.







## Key stages

For new OHL projects, the process follows a number of stages, each iterative and increasing in detail and resolution, bringing cost, technical and environmental considerations together in a way that seeks the best balance. This staged process leads to the identification of a proposed OHL alignment that is capable of being granted consent by Scottish Ministers under Section 37 of the Electricity Act 1989.

**The key stages are:**

### Stage 1: Corridor selection

No corridor options were identified due to the limited scale of the project and the identified connection points between the wind farm and the new Bingally substation, which limit the alternative corridor options.

### Stage 2: Route selection

**We are at this stage**

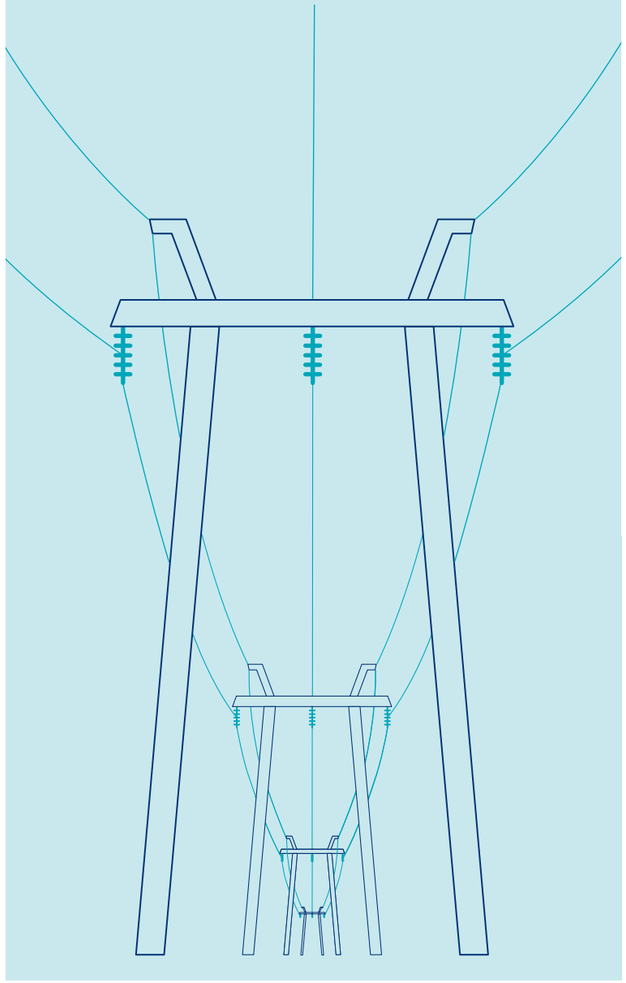
Route selection seeks to identify route options that avoid where possible physical, environmental, and amenity constraints, is likely to be acceptable to stakeholders, and is economically viable taking into account factors such as altitude, slope, ground conditions and access. A route may be several kilometers in length and typically range from 200m to 1km in width, depending on the scale of the project, the nature and extent of constraints and the character of the area in question. A number of route options are usually identified, assessed and consulted on.

### Stage 3: Alignment selection

Alignment selection seeks to identify an alignment within the preferred route and to define the access strategy which will be adopted in terms of, for example, the nature and extent of temporary and/or permanent access tracks and possible road improvements. It will be influenced by local constraints, such as individual properties, their aspect, and amenity; ground suitability; habitats; and cultural heritage features and setting. There may be more than one distinct alignment option through the preferred route. It is more likely, however, that variants to sections of an alignment may arise where there are different ways to avoid a constraint.

### What happens next?

The current status of the connection is Route selection (Stage 2). Following stakeholder engagement with the public, statutory bodies and landowners, this will be finalised as a Preferred route taken forward to Alignment selection (Stage 3) for formal environmental assessment and consent application.



# Meeting our obligations

## Our Transmission Operators licence requires us to provide best value for customers and GB consumers.

As a natural monopoly, we are closely regulated by the GB energy regulator Office of Gas and Electricity Markets (OFGEM), who determine how much revenue we are allowed to earn for constructing, maintaining and renovating our transmission network.

These costs are shared between all those using the transmission system, including generation developers and electricity consumers.

We therefore work to strict price controls which means the following environmental, engineering and economic considerations form a key part of our routeing process.

### Environmental assessments

Desk-based assessments using available mapping, Geographic Information Systems (GIS) data, and publicly available records have been undertaken to gather initial environmental baseline information.

This is crucial to enable us to understand the key environmental constraints and sensitivities.

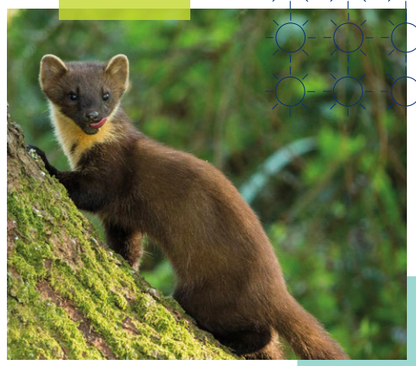
Initial work has been carried out which has helped to identify key environmental issues including nature designations, landscape and visual receptors, sensitive habitats, protected ecology and ornithology, forestry, hydrology and recreation.

Following confirmation of a proposed route and alignment for the connection, further detailed studies and assessment work will be undertaken to support the consenting process throughout 2025 and 2026.

### Consenting

The Tomchrasky Wind Farm Connection will require a consent application under Section 37 of the Electricity Act 1989. Before a project progresses to consent application stage, a Screening Opinion is requested from the Scottish Ministers (through the Energy Consents Unit) to clarify whether the project falls within the thresholds of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

If the project meets or exceeds certain criteria, then it is deemed to be an EIA Development and any application for consent must be accompanied by a formal EIA Report. If it is deemed not an EIA Development, we will provide equivalent environmental information through a voluntary Environmental Appraisal (EA) Report to accompany the consent application. The Tomchrasky Wind Farm Connection will be screened for EIA in Q2 of 2025.



### Engineering and economic considerations

In addition to the suite of environmental assessments undertaken, the following engineering and economic considerations form a key part of our routeing process:

- Construction costs and buildability (largely affected by ground conditions, such as peat/ rock/flooding/contaminated land, etc).
- Operations and maintenance requirements.
- Outage requirements and network constraints.
- Vicinity to other electrical OHL and underground structures.
- Vicinity to any other utility, overhead or underground.
- Proximity to wind turbines and wind farm infrastructure.
- Communications masts and infrastructure.
- Urban development.
- Forestry and biodiversity.
- Technology costs and design parameters.
- Site accessibility.
- Route length.

A summary of key environmental and engineering considerations are presented on the following pages.





# Route options

**We have identified six potential route options in total for the new OHL.**

Four of the route options utilise the existing Beauly to Denny OHL corridor in an attempt to minimise landscape and visual disturbance by consolidating infrastructure and utilise existing access tracks. Two alternative routes have been proposed further to the east and to the west to provide a robust assessment of all potential options.

The route selection process is informed by our guidance for routing which helps us meet our obligations under Schedule 9 of the Electricity Act 1989, and aims to balance environmental, technical, and economic considerations throughout. The route options identified and appraised for this project are described below and shown on the following page.

### Route option A

This route option is approximately 15km in length. It would leave the Tomchrasky Wind Farm substation in a north easterly direction for 7km, mainly avoiding commercial forestry constraints and the designated Wild Land Area. The remainder of the route follows the existing Beauly to Denny OHL corridor from Fasnakyle to Fort Augustus and the access track north to the new Bingally substation.

### Route option A1

This route option follows the majority of route option A, with a slight deviation south of the Bingally substation to avoid steeper sloping ground. Starting from this newly proposed substation the route diverts slightly to the east to then comes back and follows the existing line alignment. Route length is approximately 16km long and goes through significant amounts of peatland and hilly terrain. It runs in parallel or in close vicinity to the existing Beauly to Denny line. Accessibility to this route option is only available through a minor road that serves as an access track to the existing line. Some water bodies are crossed on this route option but not major navigable rivers, mainly burns and streams.

### Route option B

This route option runs east from the Tomchrasky Wind Farm substation, intersecting a block of commercial forestry before joining the Beauly to Denny OHL corridor. The remainder of the route follows the existing Beauly to Denny OHL corridor and access track north to the Bingally substation. It is worth noting that this last segment before it reaches the wind farm crosses a significant amount of existing and planned forest area. Route length is approximately 15km long and goes through significant amounts of peatland and hilly terrain. Accessibility to this route option is only available through a minor road that serves as an access track to the existing Beauly to Denny line.

### Route option C

This route option follows the majority of route option B, instead extending further south within the Beauly to Denny OHL corridor to maximise the potential options for crossing underneath the Beauly to Denny OHL. It is worth noting that this last segment before it reaches the wind farm crosses a significant amount of existing and planned forest area. Route length is approximately 15.5km long and goes through significant amounts of peatland and hilly terrain. Accessibility to this route option is only available through a minor road that serves as an access track to the existing Beauly to Denny line.

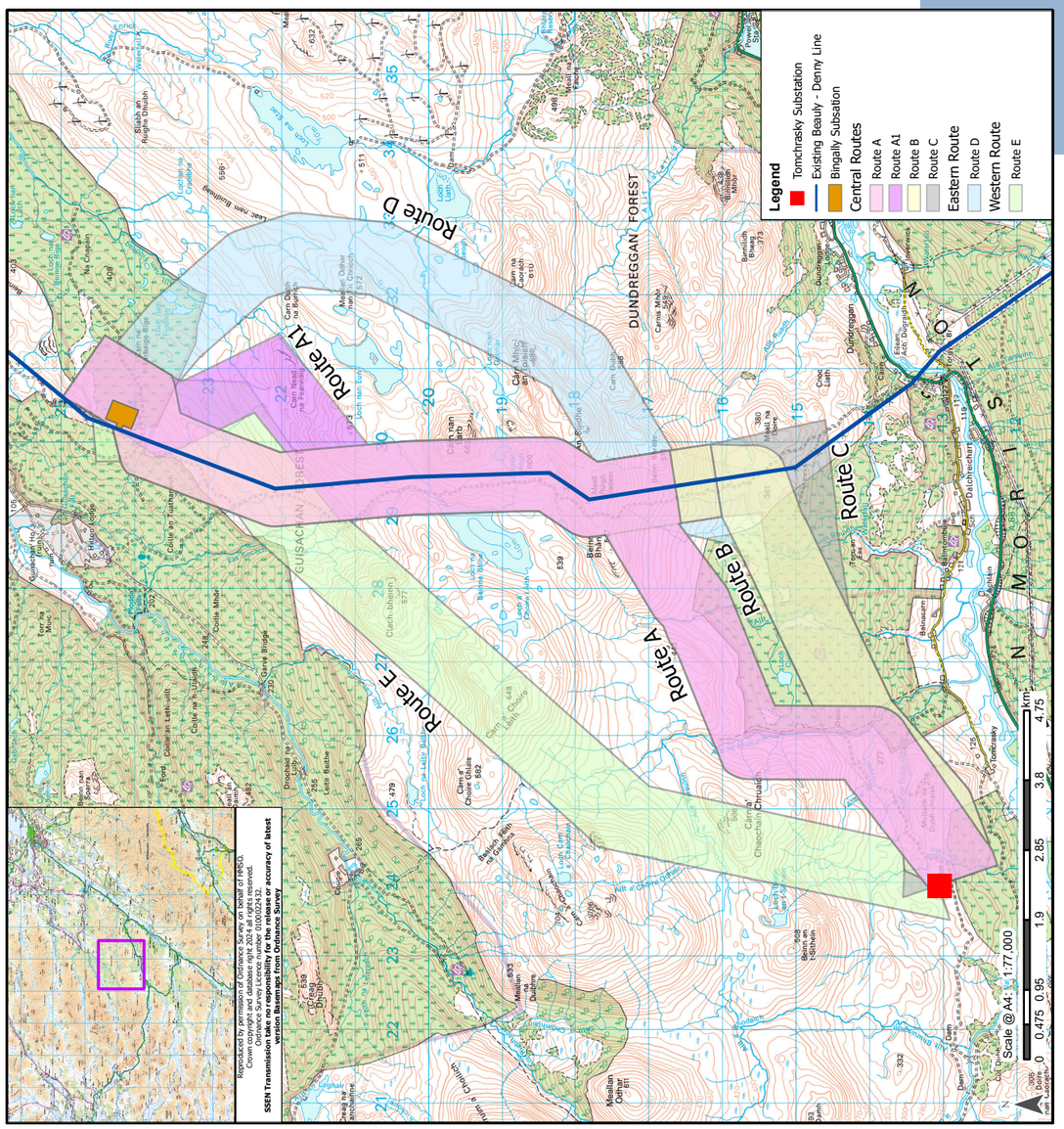
### Route option D

This route option deviates from the Beauly to Denny OHL corridor by extending further to the east before connecting into the Bingally substation. This route option encounters steeper terrain and crosses areas of Class 1 and 2 peatland. This route also intersects with an area of land managed for nature conservation. Due to this deviation coming out of the new Bingally substation which places it away considerably from the existing Beauly to Denny alignment, this option has less access alternatives and it crosses a greater number of water bodies. Route length is approximately 16.5km long and goes through significant amounts of peatland and hilly terrain.

### Route option E

This route option runs north, directly through the Tomchrasky Wind Farm and the Central Highlands Wild Land Area designation before connecting into the Bingally substation. This route option is also the closest proximity to Special Area of Conservation, Special Protection Area and Site of Special Scientific Interest nature designations further to the west. Due to its direct approach between both substations, this makes the shortest route option with a length of 13km approximately. However, it traverses through some designated wild areas, and it reaches the substation by going through the exclusion of the wind turbines.

# Route options

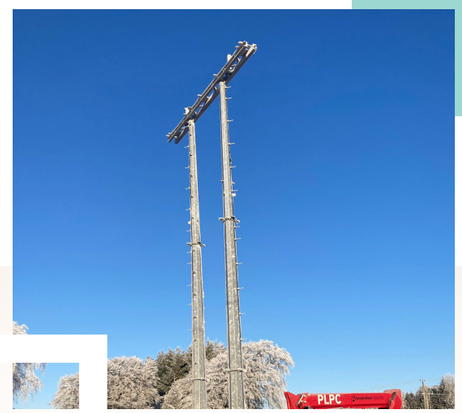



## Potential environmental risks

- Surrounding nature and landscape designations in close proximity to the route options including the Glen Affric National Nature Reserve, Central Highlands Wild Land Area and River Moriston Special Area of Conservation. Strathglass Complex Special Area of Conservation, Glen Affric to Strathconon Special Protection Area, Glen Affric National Scenic Area and Strathconon, Monar and Mullardoch Special Landscape Area are present within the wider vicinity.
- Landscape and visual impacts are a key concern considering the setting of the route options within the wider Glen Affric area.
- All route options have the potential to encounter sensitive habitats including areas of peatland which are considered of high conservation value. There is potential for deep peat with areas of Class 1 and 2 peatland present throughout the route options.
- Small areas of Ancient Woodland and commercial forestry plantation and are present within the route options. All areas of woodland can provide suitable habitat for bats, red squirrel, pine marten and badger. The watercourses and lochs present can provide suitable habitat for otter and water vole.
- A core path runs parallel to the existing Beauly to Denny OHL which is used by walkers, cyclists and horse riders.
- Route options deviating from the existing Beauly to Denny OHL corridor have a greater impact on designated sites and land managed for nature conservation.

## Potential engineering risks

- There is some steep terrain throughout sections of all the proposed routes. Route E would travel through the wind turbine exclusion zone which would require undergrounded cable instead of overhead line.
- There is steep terrain in the locations of routes D and E. Routes A, A1, B and C fewer steep slopes, also benefiting from lower visual impact. From high terrain barrier between residential dwellings and these proposed routes.
- Peat is present throughout all routes and will require further consideration and surveys in design.
- Consideration to access is required for all routes, however routes A, A1, B and C follow the existing SSEN Transmission infrastructure, having a significant advantage due to the existing haulage tracks that could be utilised.




# Other projects in the local area

**As the transmission operator in the north of Scotland, we need to maintain and invest in the high voltage electricity transmission network in our area to provide a safe and reliable electricity supply to our communities.**

## Bingally substation

As part of the Beauly to Denny 400kV Upgrade Project, this project will involve construction of a new outdoor, 400kV Air Insulated Switchgear (AIS) substation located southeast of Tomich, approximately 6km from the existing Fasnakyle 275kV substation.

A connection from the new Bingally substation to the existing Fasnakyle substation will also be required.

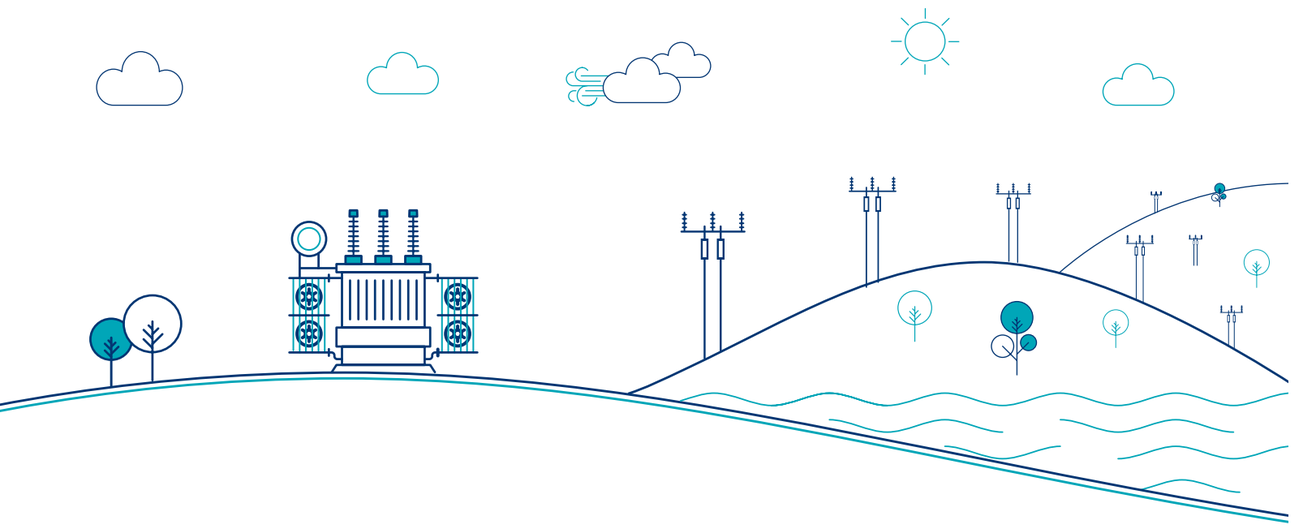
More information about this project is available on the project website: **ssen-transmission.co.uk/bingally**

## Local renewable developments

We know that local stakeholders are keen to understand the full extent of renewable developments being proposed in their local area.

Applications to connect to the transmission network in our licence area are made to National Grid ESO and undergo a lengthy process of assessment before we begin to develop a network connection for those developments. We aim to be transparent about the renewable developments looking to connect to our network but are not permitted to disclose any details of these developments until they are in the public domain.

A list of projects that hold contracts for Transmission Entry Capacity (TEC) with National Grid, the Electricity System Owner is available from their website: **neso.energy/industry-information/connections/reports-and-registers**







# Construction of an overhead trident pole line

**The project design requirements are still being considered and the outcome of this will determine what technology of trident pole will be utilised. Based on the engineering and environmental factors, steel or wood trident pole will be selected to support the OHL.**

A typical steel "H" pole (average height of 13 metres) installation requires foundations of approximately 2.5m by 3m across and to a depth of around 2m.

Opposite is a typical example of a steel trident pole and OHL.

A typical "H" wood pole installation requires foundations of approximately 2.5m by 3m across and to a depth of around 2 meters.

Opposite is a typical example of an angle wood pole which requires additional stays. Note that stays are not usually required on non-angle poles unless ground or weather conditions dictate.

Steel trident pole example

Wood pole example

Access tracks

## Construction of access tracks

Access tracks will only be constructed where access by all-terrain vehicles or the use of trackway is not feasible. Access tracks will be constructed with imported and/or locally sourced material.

Existing access tracks along the existing Beauly to Denny OHL will be utilised where possible, however, new access tracks may be needed in sections.

# Have your say

**We understand and recognise the value of feedback provided by the community and stakeholders. Without this valuable feedback, we would be unable to progress projects and reach a balanced proposal.**

## The feedback period

We will accept feedback from now until **11 December 2024.**

## How to provide feedback:

- Submit your feedback online by scanning the QR code on this page or via the form on our project webpage: **ssen-transmission.co.uk/tomchrasky**
- 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 are asking for feedback on the areas raised in the feedback form in the following pages, including if there are any factors or environmental considerations you consider important that you don't feel we have addressed, and if you have any comments on the route options.

We want to harness your local knowledge so that we spot any unforeseen challenges early and maximise the potential benefits and opportunities for your communities. By telling us what you think, you will help shape our proposals.

## 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**

**Rosie Hodgart**

1 Waterloo Street, Glasgow, G2 6AY

rosie.hodgart@sse.com

+44 (0) 7879 793 652


## 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/tomchrasky**

You can also follow us on social media:

@ssentransmission @SSETransmission

Recite me

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."





# 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. Have we adequately explained the need for the connection of the Tomchrasky Wind Farm?**

☐ Yes ☐ No ☐ Unsure

Comments:

**Q2. Do you feel enough information has been provided to understand what is being proposed and why?**

☐ Yes ☐ No ☐ Unsure

Comments:

**Q3. Are there any additional factors, or environmental features, that you consider important and should be brought to the attention of the project team?**

Comments:

**Q4.** **Do you have any particular concerns or queries on the proposed connection from Tomchrasky Wind Farm to Bingally substation?**

Comments:

**Full name:** ..... **Email:** .....

**Telephone:** ..... **Address:** .....

We would like to send you relevant communications via email such as invitations to stakeholder events, surveys, updates on projects, services and future developments from the Scottish and Southern Electricity Networks group listed below. If you are happy to receive email updates please opt in by ticking the box below. You can unsubscribe at any time by contacting us at stakeholder.admin@sse.com or by clicking on the unsubscribe link that will be at the end of each of our emails.

☐ **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:** 1 Waterloo Street, Glasgow, G2 6AY

**Email:** rosie.hodgart@sse.com

**Online:** ssen-transmission.co.uk/tomchrasky

For information on how we collect and process your data please see our privacy notice available at today's event. This can also be obtained online at: ssen-transmission.co.uk/privacy

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

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.

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