## Earraghail Wind Farm Connection Route options consultation

# Tangy IV Wind Farm Connection

Route options consultation

August - September 2022



TRANSMISSION

# Share your views with us:



We are launching public consultations to seek feedback on the route options on two projects in Argyll and Bute:

## Earraghail Wind Farm Connection Project and Tangy IV Wind Farm Connection Project.

Information on our proposals is available within this consultation booklet and on the project webpages. We intend to hold both face to face and virtual consultations.

Please note, a face to face event will be subject to covid restrictions and updates on whether these will go ahead will be available on our webpages.



## Who we are

We are Scottish and Southern Electricity Networks Transmission (SSEN Transmission), operating under licence as Scottish Hydro Electric Transmission Plc (SHE Transmission) for the transmission of electricity in the north of Scotland.



In total we maintain about 5,000km of overhead lines and underground cables – easily enough to stretch across the Atlantic from John O'Groats all the way to Boston in the USA.

Our network crosses some of the UK's most challenging terrain – including circuits that are buried under the seabed, are located over 750m above sea level and up to 250km long.

The landscape and environment that contribute to the challenges we face also give the area a rich resource for renewable energy generation. There is a high demand to connect from new wind, hydro and marine generators which rely on Scottish and Southern Electricity Networks to provide a physical link between the new sources of power and electricity users. Scottish and Southern Electricity Networks is delivering a major programme of investment to ensure that the network is ready to meet the needs of our customers in the future.

### **Our responsibilities**

We have a licence for the transmission of electricity in the north of Scotland and we are closely regulated by the energy regulator Ofgem.

Our licence stipulates that we must develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

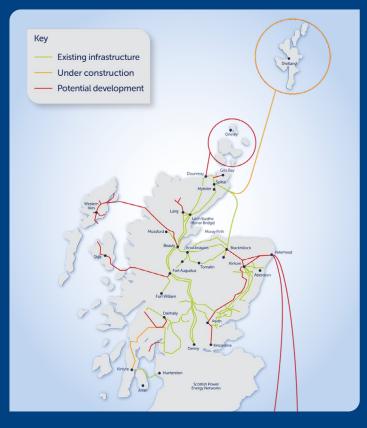
## What is the difference between transmission and distribution?

Electricity transmission is the transportation of electricity from generating plants to where it is required at centres of demand. The electricity transmission network, or grid, transports electricity at very high voltages through overhead lines, underground cables and subsea cables.

Our transmission network connects large scale generation, primarily renewables, to central and southern Scotland and the rest of Great Britain. It also helps secure supply by providing reliable connection to the wider network of generation plans.

The electricity distribution network is connected into the transmission network but the voltage is lowered by transformers at electricity substations, and the power is then distributed to homes and businesses through overhead lines or underground cables.

### **Overview of transmission projects**





## **Earraghail Wind Farm connection**

#### The proposed project would involve:

The overall aim of the project is to reinforce the existing transmission network connections in the Argyll region to enable renewable energy projects to connect to the GB transmission network and ensure security of supply.

SSEN Transmission are proposing to construct and operate a new double circuit 275kV overhead line (OHL) to connect Earraghail Wind Farm to a T-point into one side of the consented Craig Murrail to Crossaig 275kV overhead line.

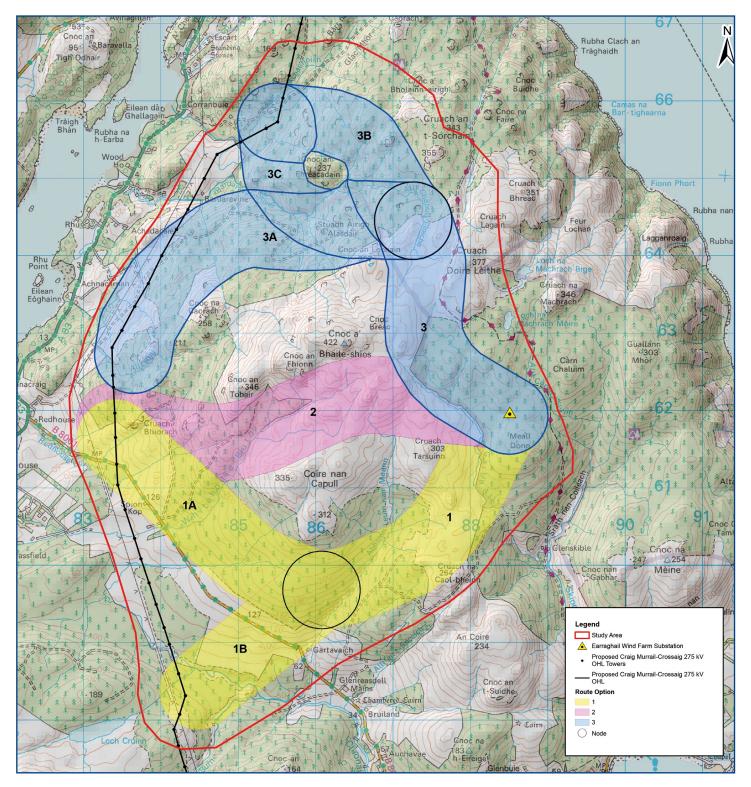
The developer of Earraghail Wind Farm has submitted an application to the Scottish Government under Section 36 of the Electricity Act 1989 for a 114MW wind farm and has a contracted connection date of April 2027.

Under the terms of Schedule 9 of the Electricity Act 1989, SSEN Transmission is therefore obliged to connect the Earraghail Wind Farm to the transmission network by the contracted connection date.





### **Earraghail Wind Farm Connection**





### **Route options**

We have identified three potential route options for the new overhead line. The route selection process identifies a wide corridor in which a preferred alignment for the overhead line can be determined.

This aims to progress towards a preferred overhead line alignment in a systematic manner, which is technically feasible, economically viable, and could be anticipated to cause the least disturbance to the environment and to those who live, work and visit the area. These options are presented on the following pages.

#### Route 1

Route option 1 has been divided into two sub-options, route option 1A and 1B.

#### **Route option 1A**

Route option 1A is approximately 6.8km in length. It would leave the Earraghail Wind Farm Substation in a south west direction through a small valley between Cruach Tarsumn and Cruach na Caol-bheinn.

The route would then head in a north west direction against the slope, in parallel to the east of the B8001 before joining into the consented Craig Murrail to Crossaig 275kV overhead line.

#### **Route option 1B**

Route option 1B is approximately 5.9km in length. It would leave the Earraghail Wind Farm Substation in a south west direction through a small valley between Cruach Tarsumn and Cruach na Caol-bheinn.

The route would then continue south west before crossing the B8001 and joining into the consented Craig Murrail to Crossaig 275kV overhead line.

#### Route 2

Route option 2 is approximately 5.2km in length. It would run east to west between Earraghail Wind Farm Substation and the consented Craig Murrail to Crossaig 275kV overhead line. The route would utilise a valley between high points at Cnoc a'Bhaite-shios, Cnoc an Fhionn and Cnoc an Tobair to the north and Crunach Tarsuinn and Coire nan Capull to the south. The western section of route would have to traverse a steep slope.

#### Route 3

Route option 3 has been divided into three sub-options, route option 3A, 3B and 3C, in order to assess the three potential route options that could be preferred within the north west of the corridor.

Route option 3 is approximately 3km in length and would leave Earraghail Wind Farm Substation to the north west, traveling north and roughly following the route of the Kintryre Way. The route avoids areas of higher ground to the east, Cruach Doire Leithe, and west, Cnoco Breac. Approximately 1.8km north west of Earraghail Wind Farm Substation, the route would then split into three sub-options.

#### **Route option 3A**

Route option 3A is approximately 4.5km in length and would bare west from route option 3, traversing the steep slopes.

The route then travels south west along the route of the consented Craig Murrail to Crossaig 275kV overhead line.

#### **Route option 3B**

Route option 3B is approximately 2.3km in length and follows a more direct route, continuing from route option 3 in a north west direction and would connect into the consented Craig Murrail to Crossaig 275kV overhead line north before bearing west around the Cnoc an Freacadain high point.

#### **Route option 3C**

Route option 3C is approximately 2.5km in length and is proposed between route options 3A and 3B to avoid the Cnoc an Freacadain high point by heading west from route option 3 before connecting into the consented Craig Murrail to Crossaig 275kV overhead line within the north west of the Corridor.

### What are the potential risks associated with these options?

We have completed a desk based assessment of the routes and have identified that the six options present the following environmental and engineering risks:

#### 1. Environmental

- a) Route options 3A, 3B and 3C encounter areas of steep slopes and several areas of Ancient Woodland.
- All route options pass-through areas of heath and blanket bog. However, route option 2 has the largest stretch of isolated moorland to cross.
- c) All options pass-through upland moorland and woodland edge habitats with the potential to support Schedule 1 and red listed species including hen harrier, black grouse and golden eagle. Route options 2 and 3 passes through the biggest areas of upland moorland habitat. These route options are also the smallest distance from the high peaks and crags of the corridor that could support nesting golden eagle.
- d) Route option 1A has a single category C listed building within it. There are no World Heritage Sites, Inventory Battlefields or Inventory Gardens and Designated Landscapes within the route options.

- e) Potential to impact a wider woodland area through increased windthrow risk from woodland removal of an overhead line operational corridor.
- 2. Engineering
- a) All routes are impacted by the wind farm and the wake effect.
- b) Peatland present design challenges on all routes, however on routes 1A and 1B this could be mitigated during the alignment stage.
- c) Routes 1A, 1B, 3A and 3C all pass through 1 in 200 year flood zone areas which will require to be mitigated during the alignment stage.



## **Enviromental infomation & RAG**

### **Earraghail Wind Farm Connection**

### Environment RAG impact rating of all route options

To demonstrate the full extent of analysis undertaken on the three route options identified, we created Red Amber Green (RAG) table's which illustrate the level of associated risk to each consideration. A high risk is shown as red, a medium risk is shown as amber, and a low risk is shown as green. For further information on the route options analysis, please refer to the consultation document available from the project webpage or on request.

#### **RAG impact rating - environmental**

		Natu	ural heri	tage			ural tage	People	Landso	ape and	d visual	l	e	Planning	
Route	Designations	Protected species	Habitats	Ornithology	Hydrology, geology & hydrogeology	Designations	Cultural heritage assets	Proximity to dwellings	Designations	Landscape character	Visual	Agriculture	Forestry	Recreation	Policy proposals
1A	L	М	Н	М	М	М	М	L	L	L	L	L	Н	М	М
1B	L	М	Н	М	М	М	L	L	L	М	М	L	М	Н	L
2	L	М	Н	М	М	L	L	L	L	М	М	L	М	М	М
3A	М	М	Н	М	М	L	L	L	L	М	М	L	Н	М	L
3B	М	М	Н	М	М	М	L	L	L	М	М	L	Н	М	L
3C	М	М	Н	М	М	М	L	L	L	М	М	L	Н	М	L

#### **RAG impact rating - cost parameters**

			Cap	oital			Opera	ational
Site option	Construction	Diversions	Public road improvements	Tree felling	Land assembly	Consent mitigations	Inspections	Maintenance
1A	M (123%)	L	L	М	М	М	М	М
1B	L	L	L	L	L	L	М	М
2	L (101%)	L	L	L	L	М	Н	М
3A	M (130%)	L	L	М	L	L	М	М
3B	L (104%)	L	L	L	М	L	М	М
3C	L (109%)	L	L	L	М	L	М	М



#### Engineering RAG rating of the six route options

	Infrastr cros	ructure sing	Env	vironme	ntal des	ign		und lition	ar	uction nd enance		Prox	imity		Additional considerations
Route	Major crossings	Minor crossings	Elevation	Atmospheric pollution	Contaminated land	Flooding	Terrain	Peatland	Access	Angle supports	Clearance distance	Wind farms	Communication masts	Urban development	Route length
1A	L	Н	Н	L	L	М	L	Н	М	М	L	М	L	L	м
1B	L	М	Н	L	L	М	L	Н	М	L	L	М	L	L	L
2	L	L	Н	L	L	L	L	Н	Н	L	L	М	L	L	L
3A	L	М	Н	L	L	М	L	Н	М	L	L	М	L	L	Н
3B	L	L	Н	L	L	L	L	Н	М	М	L	М	L	L	L
3C	L	М	Н	L	L	М	L	Н	М	М	L M L L			L	L

#### **Preferred route**

The aim of our routing guideline process is to provide a balanced assessment of cost engineering and environmental factors in order to select the preferred route for the new overhead line. Route option 1B is considered to be the preferred route compared to the other route options as:

- There are no statutory or non-statutory designated sites (including Ancient Woodland) present;
- It passes through the least amount of upland moorland habitat;
- It is the greatest distance from the high peaks and crags in the centre of the study area that could support nesting golden eagle;
- It has the highest potential of developing an alignment that passes through a limited area of exposed landscape;
- Has the lowest peatland percentage and average elevation, suggesting it has the lowest associated risk;
- It provides the additional advantage of allowing an angle point tee in, which will produce a less complex design and reduce safety concerns.



# **Tangy IV Wind Farm Connection Project**

#### The proposed project would involve:

This project aims to connect Tangy IV Wind Farm to either the existing Crossaig – Carradale overhead line, or directly to Carradale Substation, via approximately 21.5km of new overhead line by spring 2027.

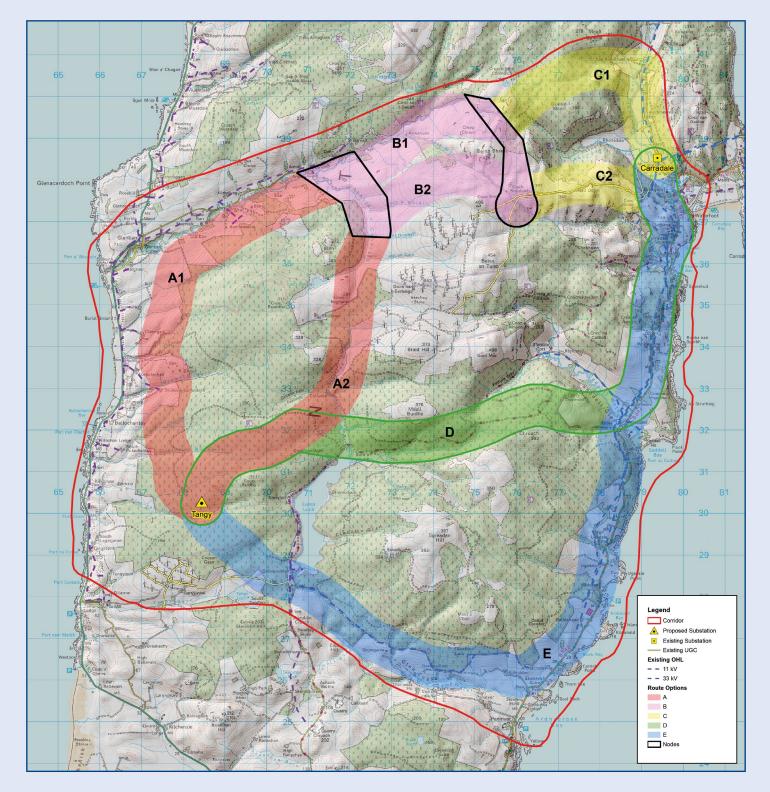
SSEN Transmission is proposing to construct and operate a new single circuit 132kV overhead line to connect Tangy IV Wind Farm to existing infrastructure at, or near Carradale substation.

The connection point will be a new switching station or extension of the Carradale Grid Supply Point (GSP). The developer of Tangy IV Wind Farm gained consent from the Scottish Government under Section 36 of the Electricity Act 1989 for a 100MW wind farm and has a contracted connection date of April 2027.

Under the terms of Schedule 9 of the Electricity Act 1989, SSEN Transmission is therefore obliged to connect the Tangy IV Wind Farm to the transmission network by the contracted connection date.







### **Tangy IV Wind Farm Connection**



### **Route options**

We have identified five potential routes for the new overhead line. The route selection process identifies a wide corridor in which a preferred alignment for the overhead line can be determined.

This aims to progress towards a preferred overhead line alignment in a systematic manner, which is technically feasible, economically viable, and could be anticipated to cause the least disturbance to the environment and to those who live, work and visit the area or use it for recreation. The options are as follows.

### Route 1 - Zone A

#### North of Tangy to Arnicle

**Route option A1** would travel north along the woodland edge on the lower slopes, above the western coastal edge of Kintyre. Near Glenbarr, the route would turn north east, running along the slopes above the Barr Water. Route option A1 would meet the node at the Abhainn a Chnoicain water course at Arnicle. Route option A1 is approximately 11km in length.

**Route option A2** travels north east from Tangy IV Wind Farm Substation around the lower slopes of Cnoc Buidhe (312m AOD), and along a shallow valley. The route then heads north, along the Allt nan Calltuinn water course to the west of the existing Beinn an Tuirc Wind Farm, before joining the node at Arnicle. Route option A2 is approximately 8km in length.

#### Route 2 - Zone B East of Arnicle to Clach Bhealaich

**Route option B1** would continue from Route option A1 to stretch north east from route option A1, traversing through an area of steep terrain north of Beinn Bhreac. The route would extend east to an additional node north of Clach Bhealaich where there is an opportunity for the route to pass around the Beinn Bhreac hilltop (425m AOD) to the south and join route option C2 (described below). Route option B1 is approximately 4km in length.

**Route option B2** would continue from route option A2 to stretch east of Arnicle, through shallow valleys, avoiding areas of steep slopes at Beinn Bhreac within the north. The route would pass north of the existing Beinn au Tuirn Wind Farm and continue east to join the node at Clach Bhealaich. Route option B2 is approximately 4.4km in length.

#### Route 3 - Zone C East of Clach Bhealaich to the B842 between Carradale and Lag Kilmichael

**Route option C1** would continue from route option B1 north of Clach Bhealaich in a north east direction, traversing steeper slopes in the north eastern extent of the corridor at Lag Kilmichael. Route option C1 would then turn south travelling in parallel to existing Crossaig to Carradale 132kV overhead line before connecting into a T-point into one side of the existing Crossaig to Carradale 132kV overhead line or connecting to Carradale substation. Route option C1 is approximately 5.9km in length.

**Route option C2** would continue from route option B2 east from the node at Clach Bhealaich, along the rocky hilltops and steep terrain before crossing the Carradale Water valley to a T-point into one side of the existing Crossaig to Carradale 132kV overhead line or connecting to Carradale Substation. Route option C2 is approximately 3.7km in length.

#### Route 4 - Route D North east of Tangy, east to Saddell and north to Carradale

**Route option D** presents a continuous route from Tangy IV Wind Farm Substation to Carradale Substation. This route option would initially follow the same route as route option A2, north east of the proposed Tangy IV Wind Farm, running through shallow valleys. Instead of heading north at Collusca, the route would continue east, running in the same direction as the Kintyre Way to Creag Thormaic. The route would then extend east to the B842 at Suddell and follow the road infrastructure north along the coast to the connection point at Carradale substation. Route option D is approximately 17.2km in length.

#### Route 5 - Route E South of Tangy, east to the B842 and north to Carradale

**Route option E** would follow a route south east of the proposed Tangy IV Wind Farm, then following along the existing woodland edge and existing 33kV overhead line to meet the B842 on the east coast. The route would follow the existing infrastructure line along the coast in a northern direction and meet the connection point at Carradale Substation in the north. Route option E is located adjacent to the East Kintyre Area of Panoramic Quality (APQ) and is the longest route proposed with a total length of approximately 22.5km.



### What are the potential risks associated with these options?

We have completed a desk based assessment of the routes and have identified that the five options present the following environmental and engineering risks:

#### 3. Environmental

- a) Route option A2 is less than 500m from the Kintyre Goose Roosts Special Protection Area (SPA), Ramsar and Kintyre Goose Lochs Sites of Special Scientific Interest (SSSI) that is designated for Greenland white-fronted geese. However, they are known to forage in areas immediately north of route option A1. Route options D and E both pass through the Kintyre Goose Roosts SSSI, Ramsar, and SPA and the Torrisdale Cliff SSSI, with route option E near the Tangy Loch SSSI and SPA.
- b) Route options A1, B1, C1, C2, D and E cross over several areas of Ancient Woodland.
- c) All route options pass through potential Annex 1 habitats (namely heath and blanket bog) where route B, C, D and E contain continuous sections of blanket bog and wet heath.
- d) Route option A1 has four Scheduled Monuments within it (Corputechan, Cleongart, An Dunan, Blary). Route option D has a single Scheduled Monument within it, Saddell Abbey. Route option E has four Scheduled Monuments within it (Saddell Abbey, Ardnacross, Kilkeddan, Kildonan).

#### 4. Engineering

- a) All routes pose technical challenges due to high elevations with almost all routes having over 50% of the route exceeding elevations of 200m.
- b) Almost all routes pass through areas of peat which presents design challenges at alignment stage.
- c) All routes pass close to wind farms which present design challenges to avoid wake effect produced by the wind turbines.
- d) Route 2a and 2b pass through a 1 in 200-year flood zone towards the end which will need to be accounted for at alignment stage.





### **Tangy IV Wind Farm connection**

### Environment RAG impact rating of all route options

To demonstrate the full extent of analysis undertaken on the five route options identified, we created Red Amber Green (RAG) table's which illustrate the level of associated risk to each consideration. A high risk is shown as red, a medium risk is shown as amber, and a low risk is shown as green. For further information on the route options analysis, please refer to the Consultation Document available from the project webpage or on request.

#### **RAG impact rating - environmental**

		Natu	ıral heri	tage			tural tage	People	Landsc	ape and	l visual	l	9	Planning	
Route	Designations	Protected species	Habitats	Ornithology	Hydrology, geology & hydrogeology	Designations	Cultural heritage assets	Proximity to dwellings	Designations	Landscape character	Visual	Agriculture	Forestry	Recreation	Policy proposals
A1	н	М	Н	М	М	н	М	L	L	М	М	L	М	L	м
A2	М	М	н	М	М	L	L	L	L	L	L	L	Н	L	м
B1	Н	М	Н	М	М	М	L	L	L	М	L	L	L	L	L
B2	н	М	н	М	М	L	L	L	L	М	L	L	L	L	L
C1	н	М	н	М	М	М	L	М	L	н	М	L	М	М	L
C2	н	М	н	М	М	L	М	М	L	н	М	L	М	М	L
D	н	М	н	н	М	М	Н	Н	М	М	н	L	н	н	м
E	н	М	н	н	М	н	Н	Н	М	М	н	L	М	н	м



#### Engineering RAG rating of the five route options

	Infrastı cros		E	nvironme	ntal desig	jn	Gro cond		Construction and maintenance						
Route	Major crossings and metallic pipelines	Road crossings	Elevation	Atmospheric Pollution	Contaminated land	Flooding	Terrain	Peatland	Access	Wind farms	Communication masts	Urban environments	Metallic pipelines		
A1	L	Н	L	L	L	L	L	М	L	Н	М	L	L		
A2	L	Н	Н	L	М	L	L	Н	L	Н	М	L	L		
B1	L	М	Н	L	L	L	М	Н	Н	Н	L	L	L		
B2	L	L	Н	L	L	L	L	Н	Н	Н	L	L	L		
C1	М	Н	Н	L	L	Н	М	М	М	L	Н	L	М		
C2	L	Н	Н	L	L	Н	Н	Н	М	L	Н	L	L		
D	L	Н	Н	L	М	М	М	М	L	Н	Н	L	L		
E	М	Н	L	L	М	М	М	L	L	н	Н	L	М		

#### **RAG impact rating - cost parameters**

			Cap	pital			Opera	tional
Site option	Cost	Diversions	Public road improvements	Felling	Land assembly	Consent mitigations	Inspections	Maintenance
A1	M (139%)	М	L	L	L	Н	L	L
A2	L	L	L	Н	L	L	L	L
B1	L	L	L	Н	L	М	L	L
B2	H (187%)	L	L	L	L	L	М	М
C1	L	М	L	Н	L	L	L	L
C2	M (138%)	Н	L	L	L	М	М	М
D	L	L	L	Н	L	L	L	L
E	M (130%)	Н	L	М	L	М	L	L

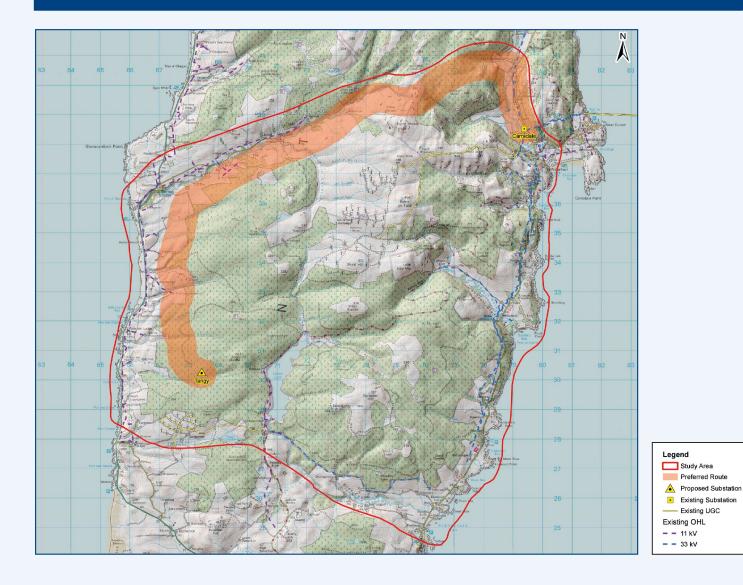


### **Tangy IV Wind Farm Connection**

#### **Preferred route**

The aim of our routing guideline process is to provide a balanced assessment of cost, engineering and environmental factors in order to select the preferred route for the new overhead line. Route option A1, B1 and C1 is considered as the overall preferred route as:

- Route option A1 is further away from the Kintyre Goose Roosts multiple designated site;
- Route options A1 and B1 would be less affected by the proposed Cnoc Buidhe Wind Farm and few other proposed wind farms in this area (including proposed Arnicle Wind Farm);
- Route option A1-B1-C1 consist of the lower woodland level, along with less moorland/peatland habitat;
- Route option C1 is preferred due to terrain and lack of technical constraints associated with the substation orientation and existing network at Carradale Substation.

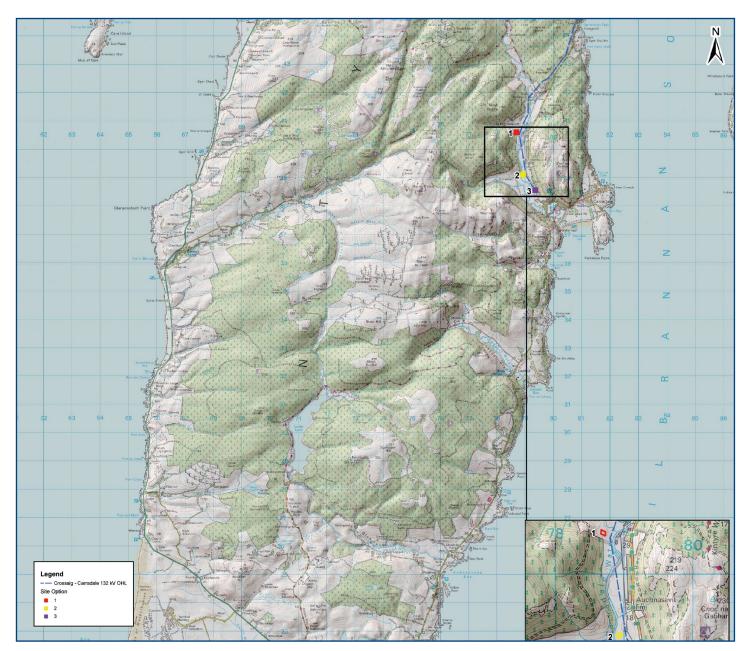




# Tangy Switching Station/Carradale Direct Connection

SSEN Transmission is proposing to construct a new switching station or an extension to the existing Carradale Grid Supply Point (GSP) between the proposed Tangy 132kV overhead line and the existing Crossaig to Carradale 132kV overhead line.

The switching station and GSP will be used to connect the new Tangy IV Wind Farm to the grid whilst ensuring all relevant protection equipment is installed in the event of a fault. The requirement for the switching station is to create a central node on the network where multiple lines of the same voltage can connect. Switches at this location allow each line in and out to be controlled without affecting the other lines. In this instance, the switching station is required to connect the proposed overhead line from Tangy IV substation to the existing Crossaig Carradale 132kV overhead line and subsequently to the UK electricity network.



### Scottish & Southern Electricity Networks

# Tangy Switching Station/Carradale Direct Connection

#### Three potential site options were identified by SSEN Transmission within the area of search.

#### Site option 1

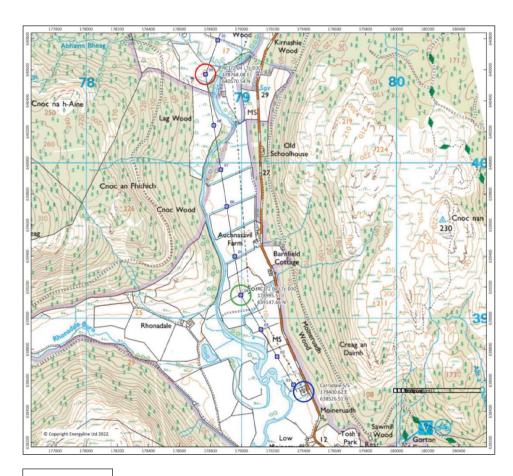
This site option will consist of a switching station and is located west of Tower 9 of the Crossaig to Carradale 132kV overhead line, approximately 2.1km north west of the existing Carradale GSP. Site Option 1 is located on agricultural land and is bound by Carradale Water to the east and open fields with blocks of woodland to the north, west and south.

#### Site option 2

This site option will consist of a switching station which is located west of Tower 4 of the Crossaig to Carradale 132kV overhead line, approximately 700m north west of the existing Carradale GSP. Site Option 2 is located on agricultural land and bound by the Carradale Water to the west and open fields with scattered woodland areas to the north, east and south.

#### Site option 3

This site option will consist of the installation of a new busbar immediately north of the existing Carradale GSP and will form an extension to this substation. Site Option 3 is located on agricultural land and bound by the Carradale Water to the west and the B842 to the east.





# What are the potential risks associated with these options?

We have completed a desk based assessment of the sites and have identified that these three options present the following environmental and engineering risks:

- 5. Environmental
- All three locations are in proximity to a major watercourse, the Carradale Water:
- All sites are close to associated riparian habitat including Native and Ancient Woodland;
- Multiple archaeological investigations have been conducted in the area of site option 3, concluding a concentrated presence of prehistoric activity. Site option 3 also has an increased likelihood of subsurface archaeology given the presence of nearby designations;
- Site option 3 is in proximity to a known bat roost.

#### 6. Engineering

- Lack of future opportunities to expand the switching station or Carradale GSP extension due to the surrounding topography and capacity issues on the Carradale to Crossaig OHL;
- Site options 2 and 3 both fall within a 1 in 200 year flood zone.



### RAG ratings for the site options

To demonstrate the full extent of analysis undertaken on the three route options identified, we created Red Amber Green (RAG) table's which illustrate the level of associated risk to each consideration. A high risk is shown as red, a medium risk is shown as amber, and a low risk is shown as green.

#### **RAG impact rating - environmental parameters**

		Natu	ıral heri	tage		Cultural	heritage	Landso	cape and	l visual	l	_and use	9	Plan	ning
Site option	Designations	Protected species	Habitats	Ornithology	Hydrology, geology & hydrogeology	Designations	Cultural heritage assets	Designations	Landscape character	Visual	Agriculture	Forestry	Recreation	Policy	Proposals
1	L	М	L	L	М	L	L	L	М	М	L	L	М	м	L
2	L	М	L	L	М	L	L	L	М	М	L	L	М	м	L
3	L	Н	L	L	М	М	L	L	L	L	L	L	М	м	М

#### **RAG impact rating - engineering parameters**

	Connectivity				Footprint requirements		Hazards		Ground conditions			Env	ironm	nental	cond	lition	5	Construction access	Operation and maintenance	
Site option	Existing circuits/network	Future development possibilities	Interface with sse distribution and generation	Dno connection	Technology	Adjacent land use	Space availability	Unique hazards	Existing hazards	Topography	Geology	Elevation	Salt pollution	Flooding	Carbon footprint	Sf6	Contaminated land	Noise (proximity to dwellings/ residential properties)	Substation Access road	Access
1	L	н	L	L	L	L	L	L	м	L	L	L	н	м	н	L	L	L	М	L
2	М	н	L	L	L	м	н	н	м	L	М	L	н	н	н	L	L	L	М	L
3	М	м	L	L	L	L	L	L	м	L	М	L	н	н	L	L	L	L	L	L



# Site option selection

### **Tangy Switching Station**

#### **RAG impact rating - cost parameters**

			Сар	bital			Opera	tional
Site option	Construction	Diversions	Public road improvements	Felling	Land assembly	Consent mitigations	Inspections	Maintenance
1	н	L	L	L	н	н	L	L
2	н	L	L	L	н	н	L	L
3	L	L	L	L	L	L	L	L

#### **Preferred site**

From an environmental perspective, site options 1 or 2 are preferred due to less environmental constraints.

However, site option 3 is preferred from a landscape perspective as the landscape character and visual impacts are lower due to the presence of existing infrastructure.

Site option 3 is preferred from an engineering perspective due to the requirement of a large indoor switching station proving to be expensive and also having a larger carbon footprint.

Although site option 3 has some technical difficulties, such as its position in the 1 in 200-year flood zone, it is still considered that this site option has an overall lower risk.



## What else is happening in Argyll?

### **Development projects**

## Creag Dhubh to Inveraray 275kV overhead line

This project involves constructing nearly 9km of new 275kV overhead line (OHL), supported by steel lattice towers, between the proposed new substation at Creag Dhubh and a connection point at tower 18 on the recently constructed Inveraray to Crossaig overhead line. The new line will be operated at 275kV once the associated transmission network in the Argyll and Kintyre region has been upgraded to 275kV capability. This will be done one circuit at a time over the summer of 2026 into spring 2027.

## Creag Dhubh to Dalmally 275kV connection

We continue to engage with the community in Dalmally regarding the alignment which has been taken forward in our Section 37 application for the Creag Dhubh to Dalmally 275kV Connection. anticipate a decision on the application in summer 2023.

If consented, we foresee construction commencing early 2024.

#### Argyll and Kintyre 275kV substations – An Suidhe, Crarae, Craig Murrail and Crossaig North

We sought feedback from the public in our pre-application consultation events for the Argyll and Kintyre Substations in December 2021 - January 2022.

SSEN Transmission intends to submit the planning and Section 37 applications for these four substations in summer 2022 with construction anticipated to commence in summer 2024 if the planning applications are successful.

### Other projects in the area

#### Sloy Power Station Substation rebuild

Transmission assets at Sloy Power Station Substation are reaching the end of their operational capabilities and need to be replaced. This project includes construction of a new substation near the existing site, tower and gantry works for connection to the existing overhead line, 11kV cables to be installed to connect back to the power station from the new substation location and removal of existing equipment at the existing substation. The project team are currently identifying potential locations and further information will be shared at future consultation events.

#### Dunoon overhead line rebuild

The Dunoon overhead line rebuild project is to replace the existing transmission overhead line which connects Dunoon to the wider national grid. The existing overhead line is supported by an old design suite of steel lattice towers (often referred to as pylons) which are coming towards the end of their operational capabilities. The project is currently in development and following consultation on the preferred route alignment in August 2021, SSEN Transmission plan to submit a Section 37 application for this project in late September 2022.

#### **Glen Falloch and Sloy VISTA**

As part of the SSEN Transmission VISTA (Visual Impact of Scottish Transmission Assets) initiative, we have installed a 132kV twin cable section of the existing 132kV double overhead line circuit at Sloy and Glen Falloch. Construction commenced in 2021 and 26 steel towers have been removed.

#### Wind Farm connection projects

The Argyll and Kintyre 275kV Strategy is required to facilitate renewable generation in Argyll. We also have a requirement to connect this renewable generation to our upgraded infrastructure.

#### **Sheirdrim Wind Farm**

This project aims to connect Sheirdrim Wind Farm to the wider electricity network. It also aims to obtain planning permission for the Sheirdrim Wind Farm substation compound.

The substation platform would be the responsibility of Scottish Power (UK) Ltd as the wind farm developer. Consultation on the preferred alignment will be undertaken in late summer 2022.

#### **Blarghour Wind Farm**

This project aims to connect the consented Blarghour Wind Farm to the proposed Creag Dhubh substation via approximately 10km of overhead line by spring 2026.

#### **High Constellation Wind Farm Connection**

This project aims to connect High Constellation Wind Farm to the existing Crossaig substation via approximately 400m of underground cable by spring 2025

### **Construction projects**

#### Inveraray – Crossaig reinforcement

This project involves the rebuild of the existing overhead line between Inveraray and Crossaig and has been in construction since late 2019.

Construction of phase 1 of the project (Inveraray to Port Ann) was completed in March 2022, and construction of phase 2 commenced in autumn 2021.

#### **Carradale Substation**

The aim of this project is to reinforce Carradale Substation in order to enable renewable generation connection requests.

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This involves the replacement of four existing transformers with higher capacity unity to enable this upgraded connection. Work is ongoing and due to be completed by the end of 2022.

Each of our projects are ultimately given their own dedicated project website.

This is where you will find regular, more specific updates regarding the latest news and timelines relating to the individual projects works.

To view the complete list of projects with websites please use the following URL: https://bit.ly/3MShRoN



# How do I have my say?

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

#### Join our face to face and virtual consultation

Our consultation events have been organised to ensure our project teams will be available to answer questions on the following dates and times:

Tuesday 23rd August 2022 Campbelltown Town Hall, PA28 6AB

Wednesday 24th August 2022 Whitehouse Village Hall, Tarbert PA29 6XR

Our live chat sessions will be held at the following times: Thursday 25th August 2022, 5pm – 7pm

During this session you will be able to send us your questions using a text chat function and they will be answered by the project team.

We are planning on holding both face to face and virtual events. The face to face events will be subject to the Covid restrictions at the time and will go ahead if appropriate taking into consideration the safety and wellbeing of the communities we are consulting and the project team.

The feedback forms in this booklet can be detached and sent back, or you can fill them in online using the forms on the project webpages. We do request that any feedback that you wish to be included in the report on consultation is received in written format (feedback received via phone calls will be circulated to the project team but would not be included in reporting).

All feedback received will be collated, reviewed and included in the report on consultation which will be published on the project webpages.

#### **Keep in touch**

In you have any questions of require further information regarding either of these projects, please do not hesitate to contact the Community Liaison Manager:

#### Caitlin Quinn Community Liaison Manager



caitlin.quinn@sse.com



**M**: +44(0)7901 135758

Scottish and Southern Electricity Networks, 1 Waterloo St, Glasgow, G2 6AY



If you are unable to join the face to face and virtual consultation live chat sessions, there are still plenty of ways to engage with our team:

- You can contact us by email, phone or post. Please see details for the Community Liaison Manager.
- We are happy to arrange (virtual) meetings for individuals or small groups to discuss any areas of interest and if this is something you would like us to facilitate, please contact us as soon as possible.
- We are happy to post out copies of this brochure, please contact the Community Liaison Manager to arrange this.

#### Feedback

As part of the consultation exercise, we are seeking comments back from members of the public, statutory consultees and other key stakeholders.

We kindly request that all comments and feedback forms are received by **Friday 23rd September**.

Further information, should you require it, is available on the project webpage or can be made available in printed format by contacting the Community Liaison Manager.



## Your feedback - Earraghail Wind Farm connection project

If you prefer, the same feedback form is available to complete online and can be found on the project webpage: www.ssen-transmission.co.uk/projects/earraghail-wind-farm-connection-project/ Please complete in **BLOCK CAPITALS**.

Q1 Has the need for the project been adequately explained?   Yes No If no, please tell us how we could provide further explanation   Q2 Has the approach taken to select the preferred route been adequately explained?   Yes No If no, please tell us how we could provide further explanation   Q3 Are there any factors, or environmental features, that you consider may have been overlooked during the preferred route selection process?   Q4 Do you feel, on balance, that the preferred route selected is the most appropriate for further consideration at the alignment selection stage? Please provide an explanation of your answer.   Q5 If you don't agree to our preferred route which of the options would you consider the best option for SSEN Transmission to develop? Please provide an explanation of your answer.		
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## Your Feedback – Tangy IV Wind Farm connection project

If you prefer, the same feedback form is available to complete online and can be found on the project webpage: www.ssen-transmission.co.uk/projects/tangy-iv-wind-farm-connection-project Please complete in **BLOCK CAPITALS**.

Q1	Has the need for the project been adequately explained?
	Yes No If no, please tell us how we could provide further explanation
Q2	Has the approach taken to select the preferred route been adequately explained?
	Yes No If no, please tell us how we could provide further explanation
Q3	Are there any factors, or environmental features, that you consider may have been overlooked
Q.J	during the preferred route selection process?
Q4	Do you feel, on balance, that the preferred route selected is the most appropriate for further consideration at the alignment selection stage? Please provide an explanation of your answer.
Q5	If you don't agree to our preferred route which of the options would you consider the best
	option for SSEN Transmission to develop? Please provide an explanation of your answer.

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## Your feedback

Address	
Telephone	
Email	
If you would like to be kept informed of progress on the project please tick this box.	
If you would like your comments to remain anonymous 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: Scottish and Southern Electricity Networks Transmission, 1 Waterloo St, Glasgow, G2 6AY

Email: caitlin.quinn@sse.com

The feedback forms and all information provided in this booklet can also be downloaded from the dedicated website:

www.ssen-transmission.co.uk/projects/earraghail-wind-farm-connection-project

www.ssen-transmission.co.uk/projects/tangy-iv-wind-farm-connection-project

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

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