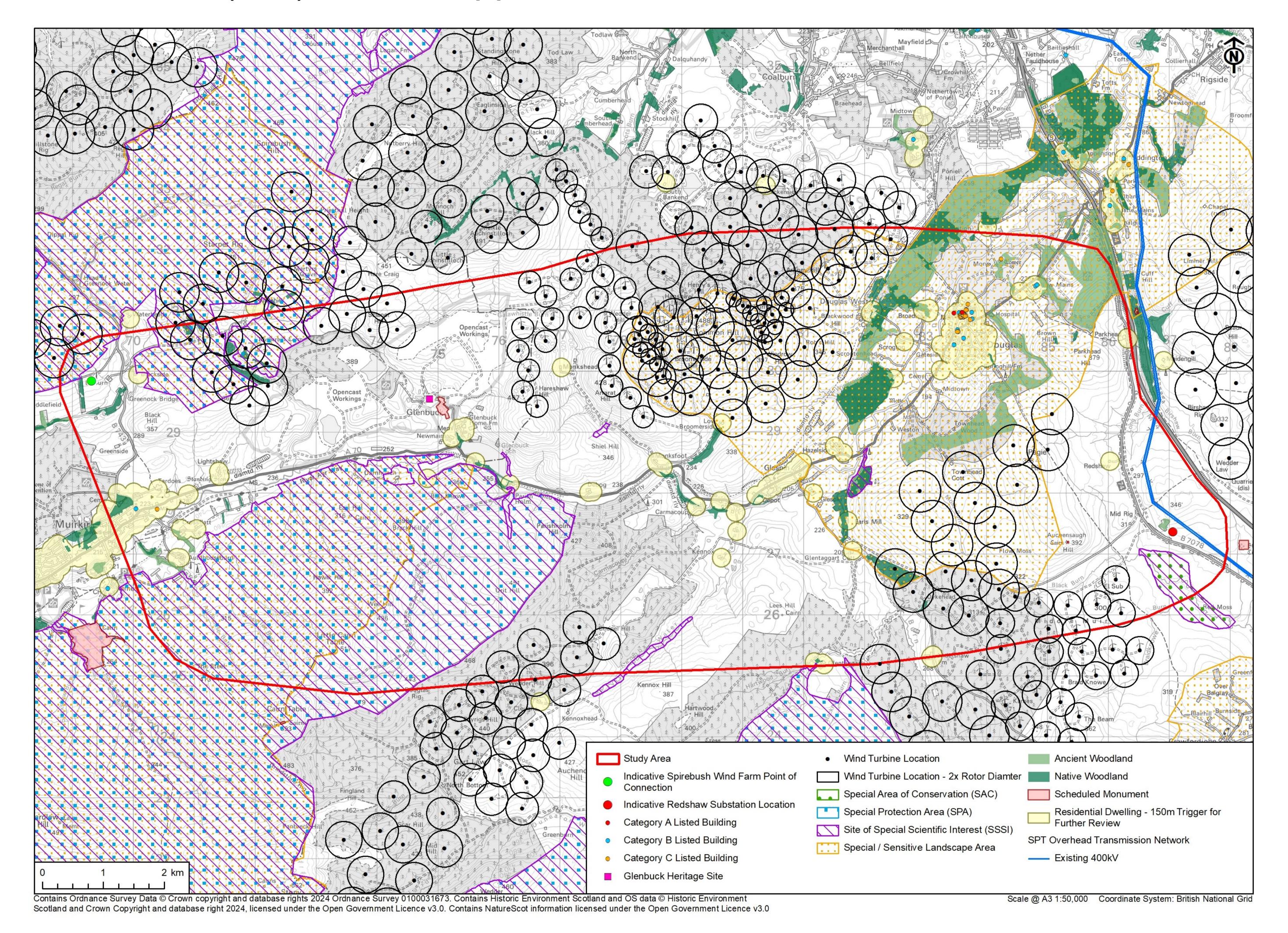
### Welcome and Introduction

#### Welcome to our consultation event

We are pleased to welcome you to this consultation event and introduce our proposals to construct a double circuit 132 kilovolt (kV) overhead line carried on wood poles from the Spirebush Renewable Energy Project. The purpose of this event is to provide you with an opportunity to learn about the project, ask questions and provide us with feedback on the preferred route corridor. Following this consultation, the proposed route will be finalised and will be carried forward to subsequent stages, including the Environmental Impact

#### Assessment (EIA) and the application for consent.



#### The Proposed Development

We are preparing proposals to construct an overhead line to connect the consented Spirebush Renewable Energy Project to the transmission network following a request from the developer of the project to provide a grid connection. The grid connection will comprise a double circuit 132 kV overhead line carried on wood poles from the Spirebush Renewable Energy Project to the proposed Redshaw Substation, which will provide the connection to the transmission network.

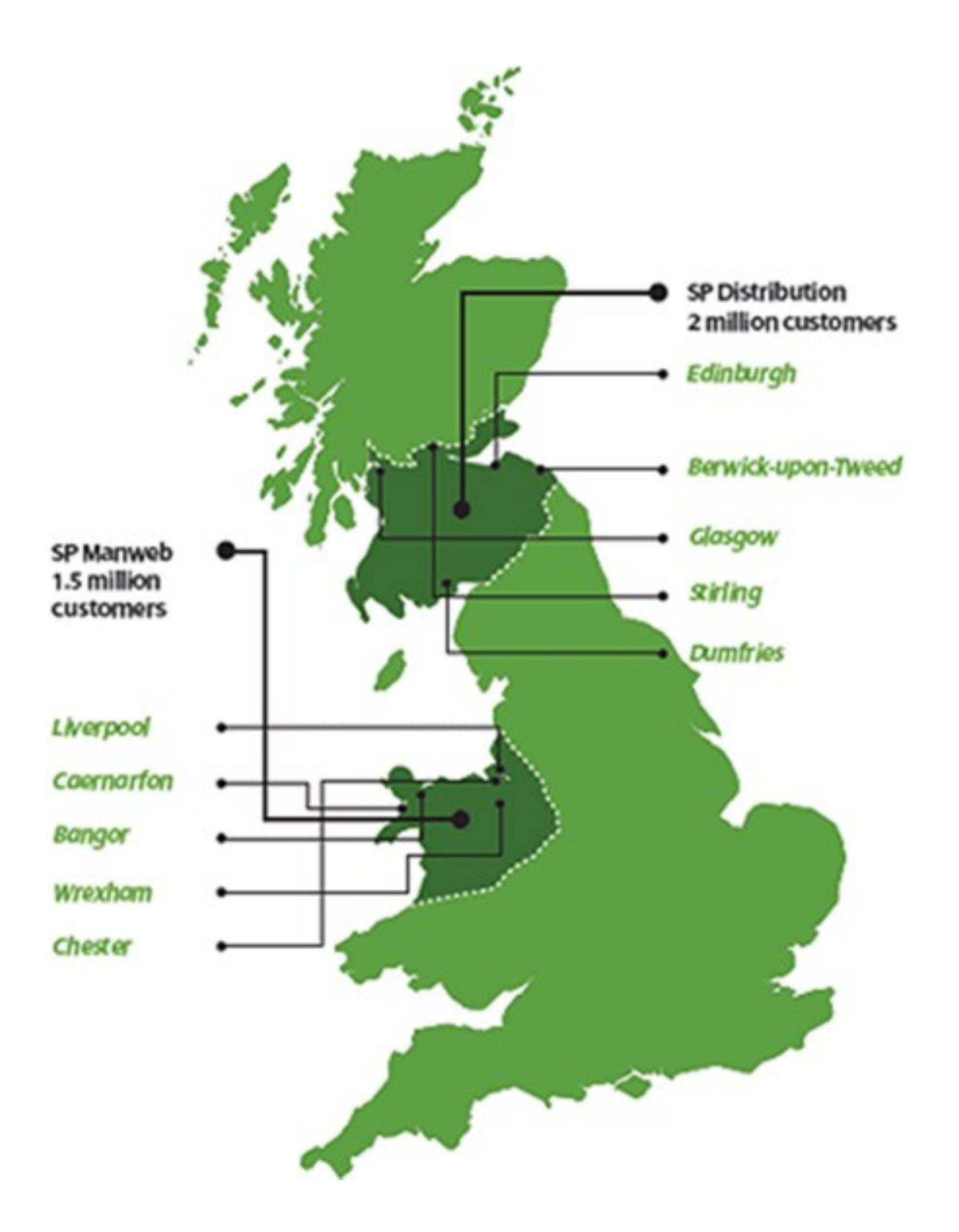


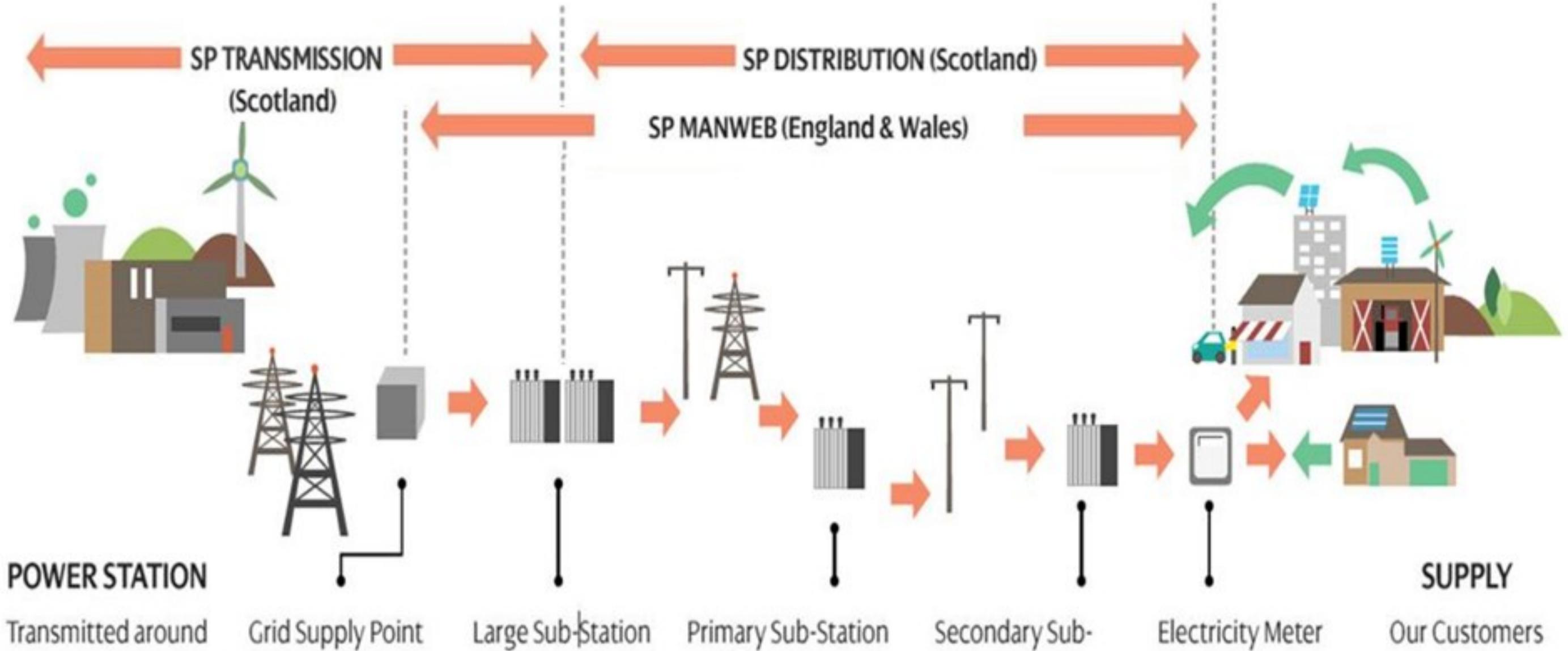
### About SP Energy Networks

SP Energy Networks is part of the Scottish Power group of companies. It owns three regulated electricity network businesses in the UK, including SP Transmission (SPT), SP Distribution and SP Manweb.

These businesses are 'asset-owner' companies holding the regulated assets and Electricity Transmission and Distribution licenses of Scottish Power. As part of this, SP Energy Networks operates, maintains and develops the network of cables, overhead lines and substations which transport electricity to connected homes and businesses in Southern and Central Scotland.

Under Section 9 of the Electricity At 1989, SP Energy Networks has a legal duty to safeguard electricity supplies by keeping its network up to date and to enable new connections for the generation and supply of electricity.





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### About the Project

#### Need for the Project

SP Energy Networks received a request to provide a grid connection for the Spirebush Renewable Energy Project. The connection is required to allow the Spirebush Renewable Energy Project to input to the electricity network. To comply with its statutory duties and license obligations, SP Energy Networks must provide the Spirebush Renewable Energy Project with a connection to the transmission system.

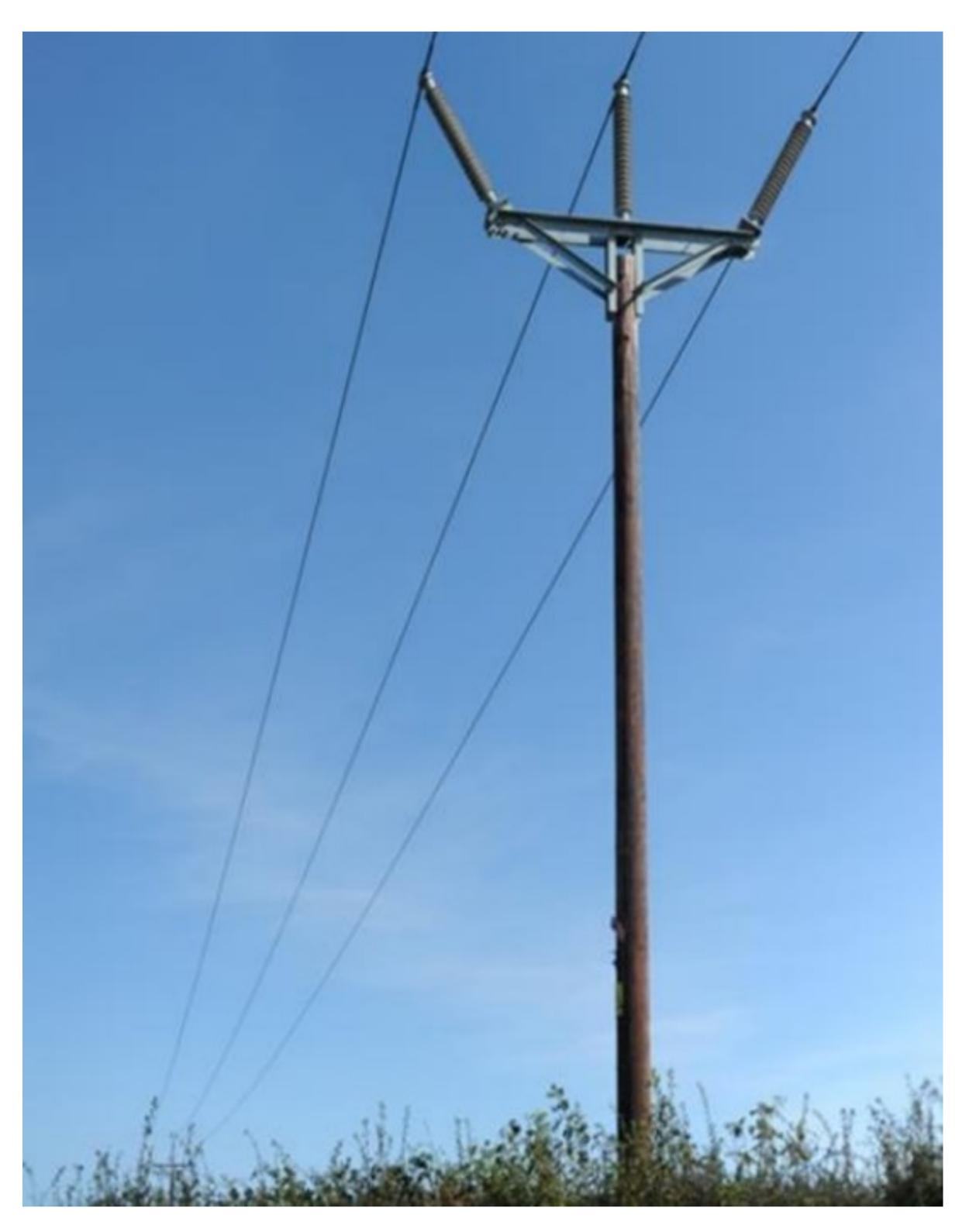
### Our Proposals

The proposal involves an overhead line supported on wood poles located between the Spirebush Renewable Energy Project and the proposed Redshaw Substation, situated across the unitary authority boundaries of East Ayrshire and South Lanarkshire. The grid connection would be approximately 22 km in length, subject to final routeing.

#### Wood Pole Structure

The wood poles overhead line is proposed to be supported with galvanised steelwork cross arms supporting aluminium conductors on insulators. These are suitable for supporting single circuit lines operating at 132 kV.

Whilst wood poles have a standard height above ground of 15 m, these can be extended or reduced in height, as required. Pole heights may require to be increased where circumstances dictate, e.g. over elevated land, structures or features.



The distance between wood poles will average between 80 m to 120 m, but can be increased if there is a requirement to span a larger distance due to the presence of a feature in the landscape, such as a river or loch.

The precise pole configuration, height and span will be determined after a detailed line design. This overhead line design has been determined following a detailed review of the engineering and technical requirements for the connection.



The photographs show a trident 'H' pole and typical trident wood pole structure.



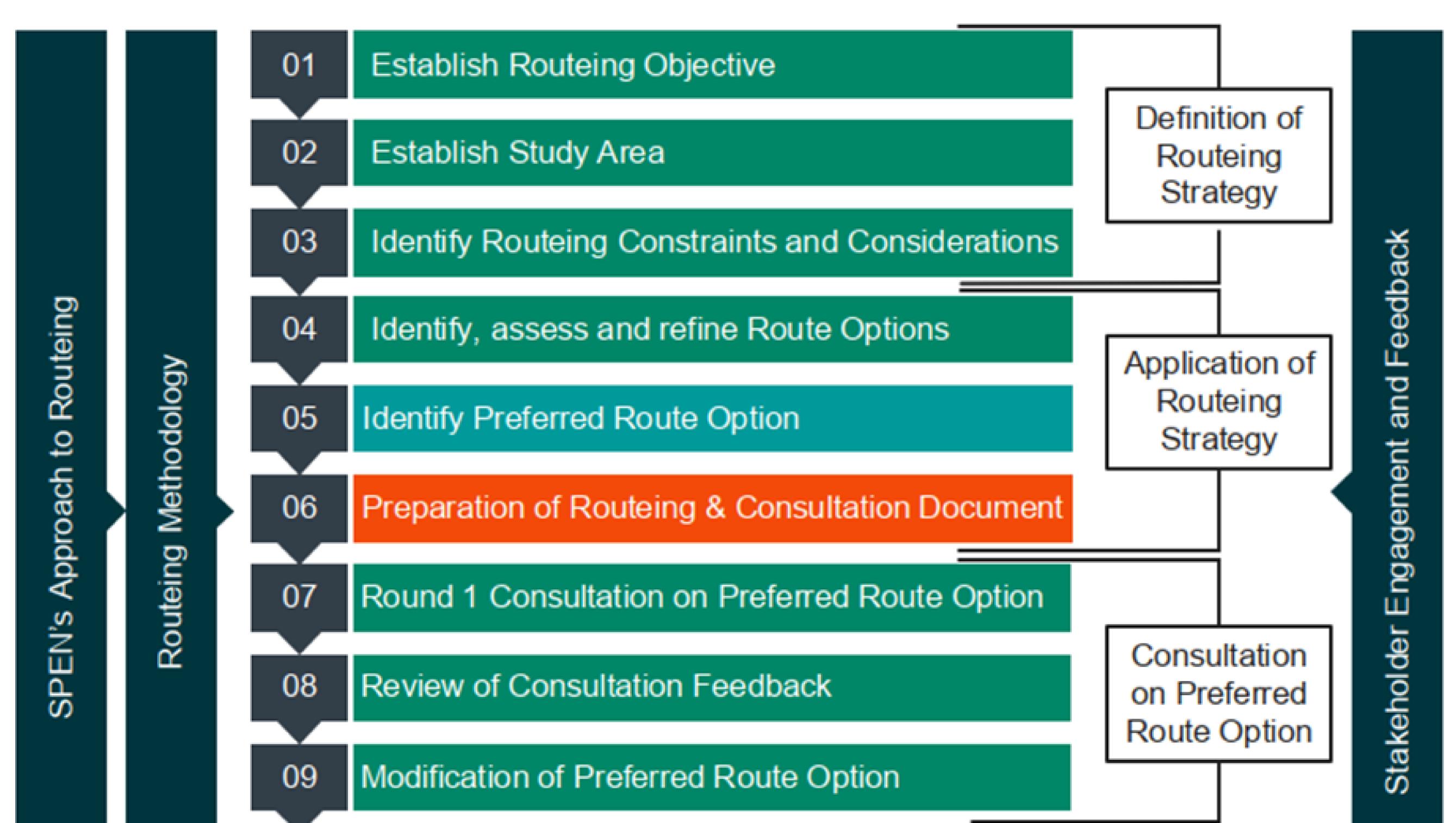
## Routeing Methodology

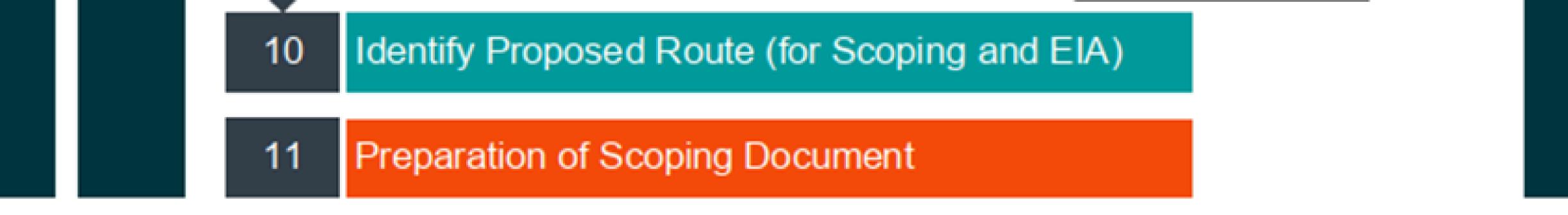
SP Energy Networks has been working to identify potential route options for the overhead line connection. The project has gone through an iterative routeing process to identify a technically feasible and economically viable double circuit 132 kV overhead line grid connection between the Spirebush Renewable Energy Project and the proposed Redshaw Substation which causes, on balance, least disturbance to the environment of the Study Area and the people who live, work and enjoy recreation within it.

The first step was the identification of a Study Area and within this the identification of routeing considerations. These take into account areas of the highest or high environmental value or interest, local considerations and likely effects on the environment, including visual amenity and landscape character. The information gathered formed a picture of the different constraints and opportunities within the Study Area.

Secondly, a routeing strategy was developed to take into account the technical and environmental routeing considerations identified within the Study Area.

This was followed by the identification, assessment and refinement of route options based on routeing considerations. For example, those which avoid and/or make best use of routeing constraints and opportunities, such as avoiding designated sites or settlements, or making use of landform or landscape features to prevent sky lining (i.e. where the overhead line would be seen above the landform). Through this iterative process route options may be refined or rejected with the aim of identifying a preferred route option which best meets the project objective.







## Routeing Considerations

To identify and assess the route options, SPT's statutory duties under the Electricity Act 1989 require a balance between the following considerations: Environment,

- . Technical, and
- Economic.

#### Landscape and Visual Amenity



SPT is subject to duties under Schedule 9 of the Act: "(a) to have regard to

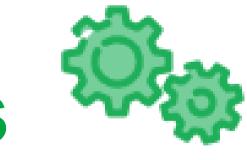
the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and (b) to do what it reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings, or objects."

SP Energy Network's approach considers that an overhead line may have effects on the following:

- Landscape and visual amenity,
- . Ecology and ornithology and biodiversity,
- . Forestry and woodland,
- Archaeology,
- . Hydrology and water resources,
- . Geology and soil,
- Land use including agriculture, and
- Recreation and tourism.

This approach has ensured that areas of high value amenity have been entirely avoided and routed to ensure that the designations are not significantly affected. Particular regard was taken to the Muirkirk Uplands SSSI and the Muirkirk and North Lowther Uplands SPA, which cover a large proportion of the Study Area in the South-West. Additional ecological sites that were regarded were the Red Moss SAC and SSSI, Shiel Burn SSSI, Ree Burn and Glenbuck Loch SSSI, Miller's Wood SSSI, North Lowther Uplands SSSI and Kennox's Water SSSI, which are typically more discrete in their extent and/or located on the boundary of the Study Area. Three scheduled monuments: Glenbuck Ironworks, Auchensaugh Hill Cairn and St Brides Church, as well as various settlements within the area, were also considered.

### **Technical considerations**



Technical considerations are a matter of SP Energy Network's ability to build, operate and maintain an overhead line within the route options identified. For example, taking into account existing electricity transmission or distribution infrastructure, topography, side slope gradients, altitude, ground conditions and accessibility.

#### **Economic considerations**



Duties imposed by Schedule 9 of the Electricity Act 1989 requires that the proposed connection is economically viable. SP Energy Network's proven choice for an economic grid connection takes the form of an overhead line, involves ensuring the directness of route options, and avoids areas where technical difficulty or compensatory schemes would render the connection uneconomical.



### **Preferred Route Option**

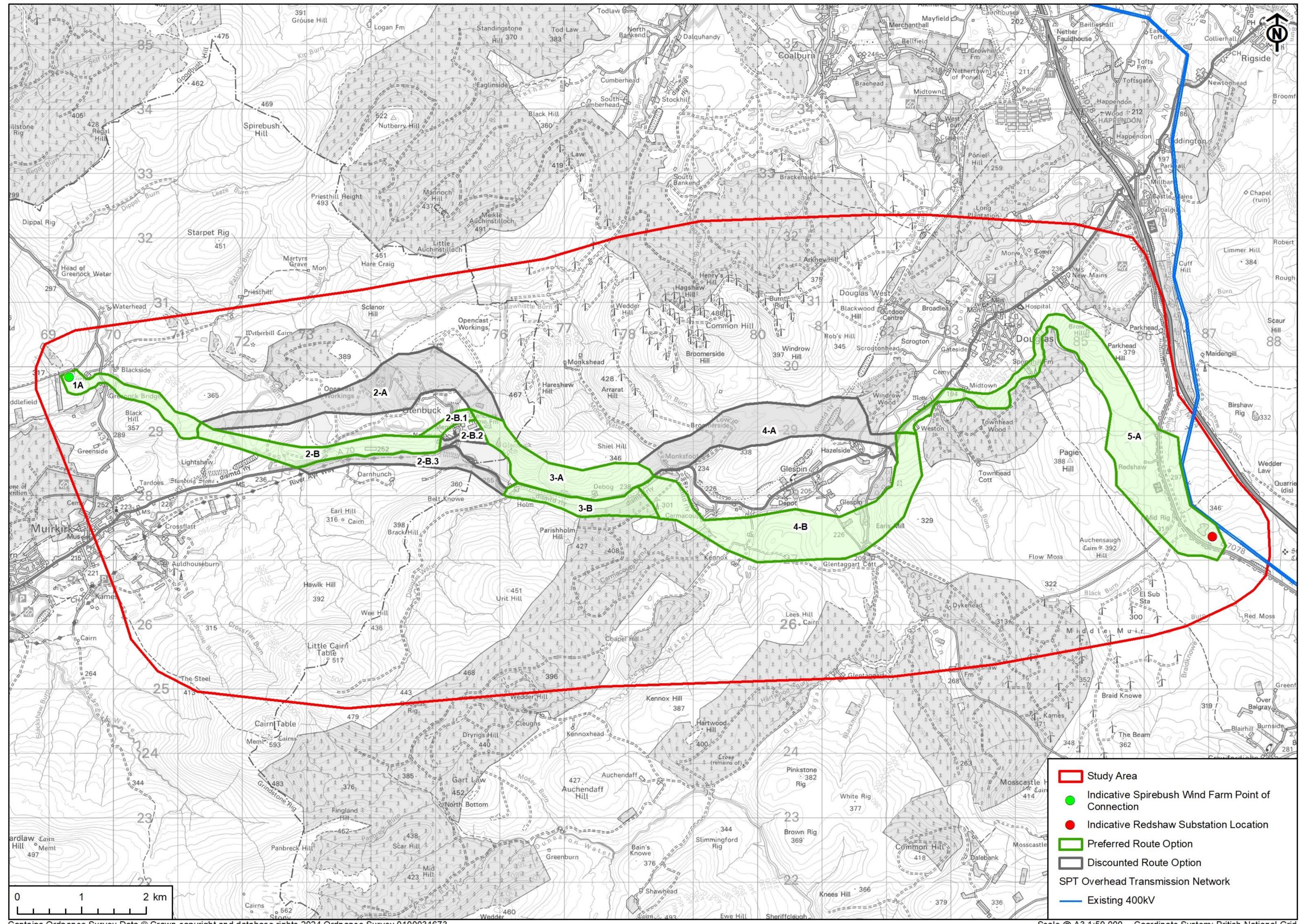
The preferred route option is identified as the route which is technically feasible and economically viable, whilst causing the least disturbance to the environment and to people.

The preferred route starts from the Spirebush Wind Farm point of connection, takes a south eastern alignment around Black Hill, and routes along the northern boundary of the A70.

The route continues to extend to the east, crossing the A70. It runs parallel to this road before taking a more southern alignment to avoid routeing through the village of Glespin.

The route then follows the A70 north east towards Douglas where there is an opportunity to integrate an OHL into the landscape by blending into the treeline of Townhead Wood, thereby minimising visual impacts of the OHL from properties in Douglas. The route then follows the B7078 corridor to the point of connection at Redshaw Substation.

The preferred route option is technically feasible and economically viable and, relative to other route options, avoids or reduces impacts on the environment and people who live, work and undertake recreational activities



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Scale @ A3 1:50,000 Coordinate System: British National Grid



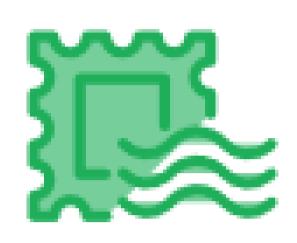
# Providing Your Feedback & Next Steps

Thank you for taking the time to visit this public exhibition. This consultation event is an opportunity for you to provide feedback, which is important to help us finalise the proposed route option that best balances technical, economic and environmental issues.

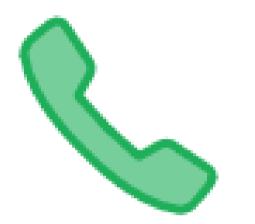
The final overhead line route will be submitted to Scottish Ministers as part of an application for Section 37 consent under the Electricity Act 1989. You can provide your feedback by the following channels:



Email via spirebushprojectmanager@spenergynetworks.co.uk



Write to the postal address at: Spirebush Renewable Energy Project, Land and Planning Team, SP Energy Networks, 55 Fullarton **Drive, Glasgow, G32 8FA** 



Telephone 07516 461129



Fill the feedback form on the virtual consultation room web page at: https://spirebush.consultation.ai/

This consultation will be live for four weeks between Tuesday 4th June and Wednesday 3rd July, however, the information will remain accessible online at the website. Please submit any comments by Wednesday 3rd July.

Please note that comments made in response to this consultation are not representations to the Scottish Government's Energy Consents Unit. When the Section 37 application is submitted there will be an opportunity to make representations to the Scottish Government's Energy Consents Unit as part of the planning process.



We look forward to any comments you may have, and thank you very much for your time, and for attending this event.

