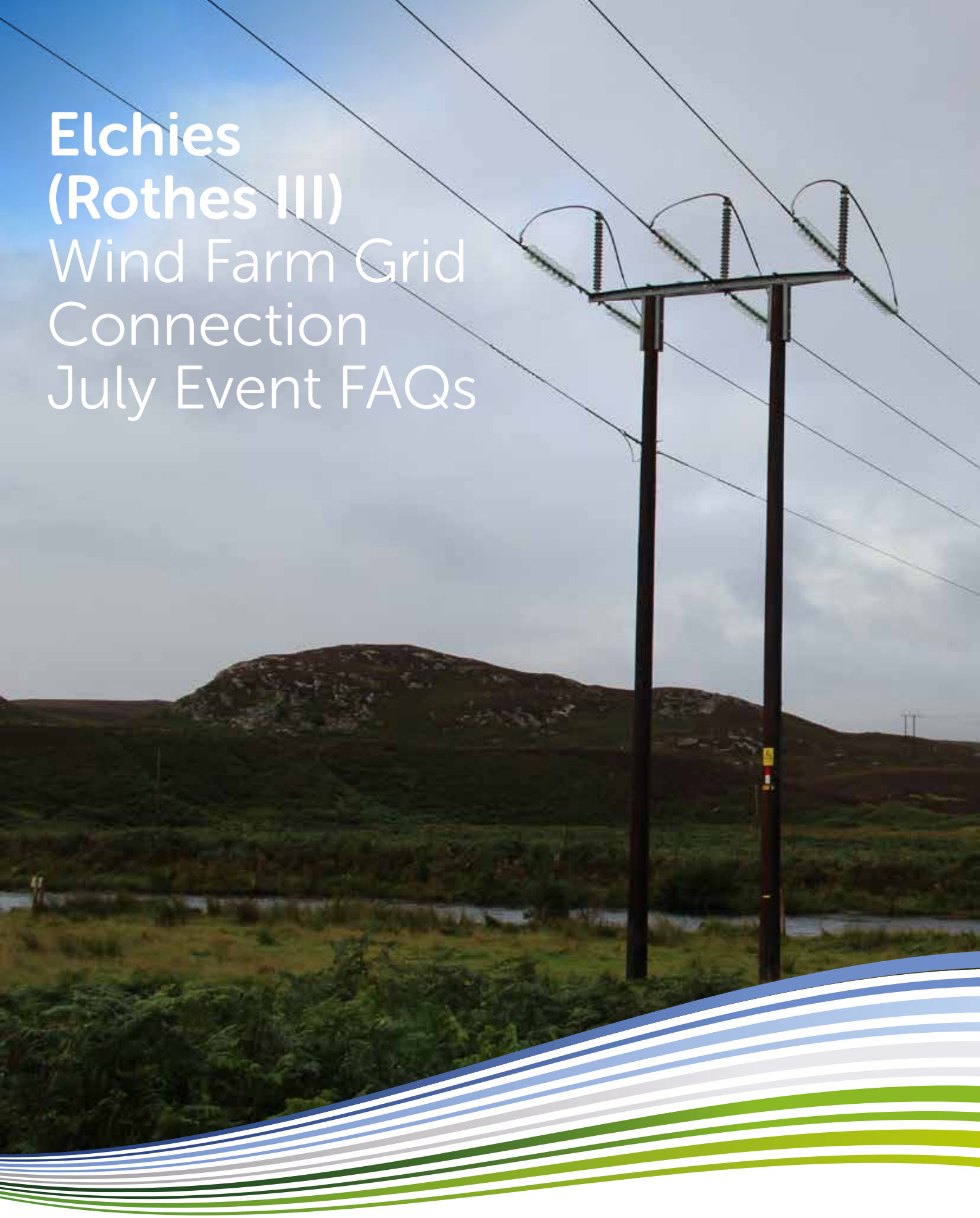

Elchies (Rothes III) Wind Farm Grid Connection July Event FAQs

Scottish & Southern Electricity Networks

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Who are Scottish and Southern Electricity Networks?

Scottish and Southern Electricity Networks is the trading name of Scottish and Southern Energy Power Distribution Limited, Scottish Hydro Electric Transmission plc, Scottish Hydro Electric Power Distribution plc and Southern Electric Power Distribution plc.

What is the transmission network?

It's the highest voltage electricity network in the UK – the 'motorway network' of the energy world. It transmits large quantities of electricity over long distances via wires carried on a system of mainly metal towers (pylons) and large substations. Transmission voltages in Scotland are 132kV, 275kV and 400kV. Larger generation schemes usually connect to the Transmission system.
The lower voltage parts of the system are called distribution networks. In Scotland, these local networks operate below 132kV whereas in England the distribution network includes 132kV.

How and to what extent are electricity consumers' interests considered?

SHE Transmission are regulated by the Office for Gas and Electricity Markets (Ofgem), the regulator responsible for representing consumers' interests. Electricity consumer interests are therefore one of our key drivers and this is enshrined in our statutory duties under the Electricity Act. In particular we have a statutory duty to develop, maintain and operate an efficient, economic and co-ordinated transmission system. Since the costs of these projects will ultimately be paid for by electricity consumers, we have a responsibility to take cost into account with due weighting in a comparison against other important factors.

How are proposals scrutinised?

The Scottish Ministers are responsible for determination of applications submitted under Section 37 of the Electricity Act 1989. Both statutory consultees and members of the public have the right to submit their representations on the application. All representations will be considered by Scottish Ministers in their determination of the application.

The Office for Gas and Electricity Markets (Ofgem), as the regulator, has to approve all investment so project proposals are developed under license conditions. Preferred route corridors chosen will comply with revised 'Holford Rules' which are the recognised industry approach to routeing overhead lines

What are the Holford Rules?

The Holford Rules originated in 1959 as the result of work by Lord Holford, a part-time member of the Central Electricity Generating Board (National Grid's predecessor). The Holford Rules have been augmented by both National Grid and SHE Transmission plc to reflect environmental legislation and best practice in recent years. We have continued to use them as a valuable set of guidelines for reducing the impact of our assets on landscapes.

The guidance recommends appropriate application of the Holford Rules to inform routeing. These rules advocate the application of a hierarchical approach to routeing which first avoids major areas of highest amenity, then smaller areas of high amenity, and finally considers factors such as backdrop, woodland and orientation. The Holford Rules apply the term 'amenity' to refer to environmental designations and classifications such as Natura 2000 sites, Sites of Special Scientific Interest (SSSI), Scheduled Monuments, Listed Buildings, National Parks.

The guidance also recognises that the key effect of overhead lines is visual and it advises that the routeing of overhead lines should consider the types of mitigation (screening) that could offset any visual effects.

In their National Policy Statement EN-5, the Government has stated that the Holford Rules "should be followed by developers when designing their proposals." Their use is therefore Government policy, rather than a voluntary choice of SHE Transmission plc.

Where is the Elchies windfarm?

The proposed development is in the vicinity of the hill of Carn na Calliche, approximately 4 km west of Rothes village in Moray. It is located to the east of the existing Rothes I and II Wind Farms.

Why could you not wait until a real face to face consultation was possible?

We are working to a connection date for the Developer of the Elchies Windfarm and to ensure this connection date is met we have a tight programme which includes holding consultations on our preferred route and subsequently our alignment.

Holding a virtual consultation has allowed stakeholders to view proposals and have their say despite the wider constraints associated with COVID-19.

Can any of this line go underground?

Undergrounding the entire circuit has been discounted for a number of reasons. The main reason is for the maintenance of the line in the future. In the event of a fault on the line, the fault can be detected and rectified in a matter of days. However, if the fault occurs in an underground cable the time needed to locate and rectifying the fault increases and could potentially take months to fix.

Another reason cabling the entire circuit has been discounted is due to the footprint which would be required to install the cables. A trench, approximately 6m wide and 1.5m deep would need to be dug along the route. This would increase the potential to damage to local environment during construction.

It is acknowledged that further detailed environmental and engineering survey work will be required to find an acceptable alignment and design solution through this sensitive landscape and environment, which could result in a review of the preferred route option and or use of appropriate localised mitigation methods, such as underground cable.

What is the difference in cost between overhead cables and underground cables?

It is estimated that at transmission voltages underground cables are significantly more expensive to construct than overhead lines. The actual cost ratio will vary depending on the length of the cable section and number of terminations. The unit cost of short lengths will tend to be more expensive due to the high cost of terminating equipment. The following example is a rough guide based on a kilometer of transmission overhead line but with metal prices varying widely the actual difference will depend on the metal prices when the orders are placed, for a 132kV circuit typical cost difference would be between 4 and 8 times more expensive for a cable.

Will residents be compensated if overhead power lines/underground cabling cross over their property?

The project land manager would discuss the wayleaves process with any affected land owners should the selected alignment cross over their land. We are still in the very early stages of development at this stage however, our land manager would contact anyone the alignment affected to discuss in more detail.

Why can't the overhead line be routed through forestry and disguised as much as possible and not march through open countryside close to house and distilleries?

The option chosen is a balance of all factors be that engineering, environmental and people and we will look to minimise impacts on all of these. Any trees that are removed have to be replaced (as per Scottish Forestry policy) therefore avoiding tree removal is an important consideration. Where this cannot be avoided we will look to ensure sufficient mitigation is in place. This is likely to take the form of compensatory planting within the local area, in line with national policy requirements and SSEN's biodiversity net gain commitments.

How much more capacity will Blackhillock substation have after Rothes and Moray windfarms are connected and thus how many more lines will be coming into it?

The connected and contracted generation that connects into Blackhillock are:

At Blackhillock 400kV:

- Beatrice Offshore Wind Farm (Connected)
- Moray West Offshore Wind Farm (Connects in April 2024)

At Blackhillock 132kV:

- Dorenell Onshore Wind Farm (Connected)
- Clashindarroch Extension (Connects October 2023) connects on to one of the existing two lines into Blackhillock 132kV from Dorenell Wind Farm. So whilst it is a new connection, it will not result in new overhead lines entering Blackhillock substation, it will utilise the existing overhead lines into the substation.
- Elchies Onshore Wind Farm (Connects June 2024), requires a new 132kV single circuit overhead line (basis of consultation).

The wider system upgrades that interface with Blackhillock Substation include East Coast 400kV and North East 400kV Upgrade, neither project includes new overhead lines entering Blackhillock. (Full details of these project are available at **https://www.ssen-transmission.co.uk/riio-t2-plan/engineering-justification-papers/**)

The future of the Blackhillock site is dependent on both local and wider system need, this is predominantly the connection of renewable generation in the north of Scotland and the requirement for increased of north to south power flow capability. SHE Transmission continue to assess these requirements annually through the ESOs Network Options Assessment and through customer connection applications.

How will SSEN minimise the environmental impact this OHL will have?

The environmental sensitivities are noted and understood and further studies will be undertaken at the alignment stage to find an acceptable alignment that minimises potential environmental effects, including but not limited to ecology and landscape and visual amenity.

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