Scottish & Southern Electricity Networks

TRANSMISSION

Routeing Overhead Lines

SSEN Transmission, as a licensed electricity Transmission Operator, has a legal duty to develop and maintain a technically feasible and economically viable transmission system in our license area in the north of Scotland. We must fulfil this duty by also having regard, and seeking to protect, environmental and community interests when developing and operating our infrastructure.

Our approach to routeing overhead lines is to seek to minimise the impacts of new infrastructure on both the environment (including designated areas, wildlife, habitats, cultural heritage and biodiversity) and on communities who live, work and spend time in these areas. We seek to find the best balance between these whilst also ensuring the proposal is technically feasible to and economically viable. All new overhead lines require consent from Scottish Ministers under the Electricity Act 1989 in order to construct them. Applications for consent are accompanied by an appropriate level of environmental assessment which identifies the potential impacts and details the route selection considerations and decisions to support the chosen alignment. We follow internal guidance, based around the Holford Rules, to enable us to consistently and rigorously select routes and alignments. The Optioneering process has a number of key stages, with each increasing in detail. As well as technical and environmental reviews, consultation is also undertaken with the public, landowners, consenting authorities and statutory and other consultees. Feedback from this consultation helps to inform which option achieves the best balance across environmental (including people), technical and cost considerations. The selected option is then taken forward to the next stage.

Our Optioneering Process

Stage.0: Routeing Strategy

The project team start the process of routeing by defining and agreeing the overall approach to be taken for the individual project, including specific consultation requirements. This allows a tailored approach to be taken based on the scope and scale of the proposed development (for example, smaller/shorter overhead lines may not require to undertake corridor selection and can proceed straight to route selection).

Stage.1: Corridor Selection

This stage aims to identify possible corridors (up to several kilometres wide) capable of providing a continuous corridor between the defined end points. Corridors may vary in width along their length and they may overlap or diverge. Corridor options are identified and appraised by our engineering and environment teams against a consistent set of criteria set out in our guidance (often using external specialist consultants). Consultation with the public, statutory and other consultees is undertaken on the options to help inform a decision on which corridor to be taken forward to Stage 2. The chosen corridor may include a single option or may be a hybrid of one or more options to help avoid environmental and community constraints.

Stage.2: Route Selection

The purpose of this stage is to identify possible route options within the chosen corridor. Route options may vary in width along their length, typically from 500 metres to 1 kilometre, depending on the scale of the project, the nature and extent of constraints, and the character of the area through which they pass. Route options are identified and appraised by our engineering and environment teams in the same way that corridor options are, using set criteria. As with Stage 2, consultation with the public, statutory and other consultees is undertaken on the options to help inform a decision on which route to be taken forward to Stage 3. In addition, we may start to have conversations with landowners along the routes at this stage.

Stage.3: Alignment Selection

This is the final stage in the routeing process and aims to identify an alignment which can be taken forward into the formal consenting process. Alignments can be influenced by more localised constraints, such as topography, location of properties and other infrastructure, farming and other land use activities, ground conditions and local natural and cultural heritage. Access requirements to construct and operate the infrastructure will also be designed and reviewed at this stage, which considers the nature and extent of temporary and permanent access tracks and possible public road improvements. Alignments are identified and appraised by our engineering and environment teams to identify specific constraints that may influence the decision-making process. In addition to public and consultee consultation, discussions with landowners will also progress to discuss alignment options and agree tower positions and access requirements. The chosen alignment will be taken forward to detailed design and be subject to formal environmental assessment prior to an application for consent.

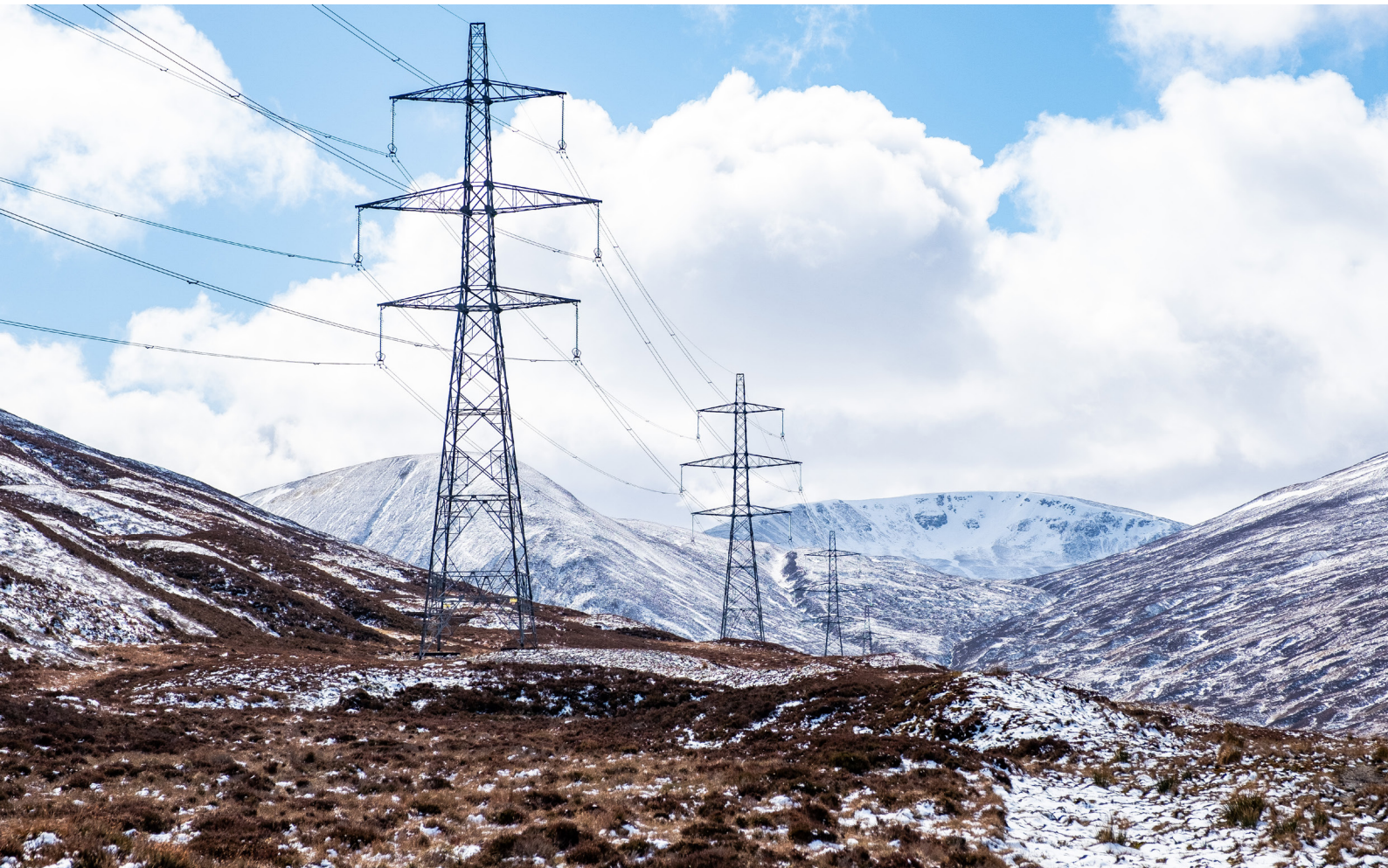
Consent Application

How we assess options

During each Stage, we undertake a comparative appraisal that seeks to distinguish between options, so that a chosen option can be identified. The appraisal considers which option achieves the best balance across environmental (including people), technical and cost considerations. Depending on the project, it may not always be necessary or possible to identify multiple alignment options however it will be clearly stated how the decision has been reached on balance, with reference to the different considerations.

When undertaking comparative appraisals, Environmental (including people), Engineering and Cost considerations are assigned a Red/Amber/Green (RAG) rating. The RAG ratings for each topic are used to examine differences between the options being considered. The appraisal compares the wider implications of each option on those topics (both individually and combined) and reaches a reasoned conclusion, on balance across all topics.

Colour	Comparative Appraisal
Green	Low potential for the option to be constrained
Amber	Intermediate potential for the option to be constrained
Red	High potential for the option to be constrained



Who we consult with

Here is an overview of the external stakeholders we consult with during each stage of our Optioneering process.

Statutory Stakeholders (examples)

- Energy and Consents Unit (ECU)–Scottish Government
- Local Planning Authorities
- Scottish Environnment Protection Agency
- NatureScot
- Historic Environment Scotland
- Scottish Forestry

Other Stakeholders (examples)

- Local communities
- Landowners
- Utility companies
- Transport Scotland
- Network Rail
- General public
- Non-governmental organisations
- Local businesses
- Elected officials