Scottish Hydro Electric Transmission Plc

Report on Consultation

Published by
Scottish Hydro Electric Transmission Plc
10 Henderson Road
Inverness
IV1 1SN

March 2014
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## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment Variation</td>
<td>A possible route alignment identified in response to issues raised during the consultation process</td>
</tr>
<tr>
<td>132 kV</td>
<td>132 kilo-volt capacity of an electricity power line</td>
</tr>
<tr>
<td>Conductor support type</td>
<td>The type of transmission infrastructure, e.g. either lattice steel towers of trident wood poles, that is to be used</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>ES</td>
<td>Environmental Statement</td>
</tr>
<tr>
<td>GWDTE</td>
<td>Groundwater Dependent Terrestrial Ecosystem</td>
</tr>
<tr>
<td>Holford Rules</td>
<td>A set of 7 rules, first developed in 1959 by Sir William Holford, which define the principles of route selection and which continue to inform transmission line routeing in the UK.</td>
</tr>
<tr>
<td>OHL</td>
<td>overhead line</td>
</tr>
<tr>
<td>planning application</td>
<td>an application for planning permission under the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006;</td>
</tr>
<tr>
<td>preferred alignment</td>
<td>the route alignment which was considered to represent the optimum balance between technical, economic and environmental considerations and which was included within the Consultation Document;</td>
</tr>
<tr>
<td>preferred connection option</td>
<td>The preferred alignment and conductor support type combination</td>
</tr>
<tr>
<td>proposed route</td>
<td>the final route alignment which will be brought forward with a section 37 application for consent;</td>
</tr>
<tr>
<td>route option</td>
<td>one of several possible alignments which a new transmission line could follow, within identified route corridors</td>
</tr>
<tr>
<td>routing study</td>
<td>the process of selecting a preferred connection option for a new transmission line;</td>
</tr>
<tr>
<td>Section 37 application</td>
<td>An application for development consent under section 37 of the Electricity Act 1989</td>
</tr>
<tr>
<td>SAM</td>
<td>Scheduled Ancient Monument</td>
</tr>
<tr>
<td>SHE Transmission</td>
<td>Scottish Hydro Electric Transmission Plc</td>
</tr>
<tr>
<td>SSSI</td>
<td>Site of Special Scientific Interest</td>
</tr>
<tr>
<td>study area</td>
<td>the area of land, at its widest extent, which was considered within the routing study, defined here as the broad area between between Thurso to the west, Gills Bay to the east, the coast to the north and Durran and Reaster to the south.</td>
</tr>
</tbody>
</table>
LOD 3-Dimensional Limits of Deviation, which defines the practical limits within which micrositing of the OHL infrastructure can occur within the terms of the s37 consent which is to be sought. The purpose of Limits of Deviation is to allow flexibility for the final micrositing of individual towers to respond to localised ground conditions, topography, engineering and environmental constraints.

SEPA Scottish Environment Protection Agency

SNH Scottish Natural Heritage

Wayleave A Wayleave is the means by which SHE Transmission seeks to agree a right of access to install, operate and maintain the electricity transmission asset with a landowner.
EXECUTIVE SUMMARY

Scottish Hydro Electric Transmission Plc (SHE Transmission) is proposing to construct a new 22 km double circuit 132 kV overhead line (OHL), supported by steel lattice towers, between a consented new substation south of Thurso (Thurso South substation) and a new substation at Gills Bay (Gills Bay substation).

This Report on Consultation documents the consultation process undertaken between July and September 2013. The programme of consultation was designed to engage with statutory and non–statutory organisations and the local communities in Caithness in order to invite feedback on the rationale for and approach to, the selection of the preferred connection option for the proposed 132 kV OHL. Consultees were also invited to provide feedback on any specific issues that may have been overlooked, and on the consideration given to each environmental factor during the Routing Study.

In total, 30 consultation responses were received during the consultation process making a total of 88 separate comments. These included both written correspondence and completion of feed-back forms at consultation events. Responses covered a range of topics, with a number raising specific issues in relation to the preferred connection option. A number of respondents expressed ‘in principle’ support for the preferred connection option (the alignment of which is referred to throughout this document as ‘the preferred alignment’).

Common themes emerging from responses related to the potential visibility of lattice steel towers along the preferred alignment as it passes properties to the south of Hill of Olrig, around Durran and between Wester Olrig and Reaster; and also the preference for an OHL to avoid line of sight with the existing microwave transmitters located on the Hill of Olrig. Questions were also raised relating to the possibility of an underground transmission option; and whether the preferred connection option could affect the value of land and properties or affect existing features of cultural heritage importance. Comments were also received relating to a perceived potential health risk for residents near an OHL; and also relating to the potential for OHL interaction with sensitive bird species and possible mitigation options to minimising bird collision risk.

Following evaluation of the consultation responses, a number of possible variations to the preferred alignment were considered in order to ensure subsequent design development responded to the issues raised, where ever possible. In addition, this report also identifies where issues raised in the consultation responses will be addressed by the scope of the Environmental Impact Assessment (EIA).

The result is a Proposed Route and Proposed Limits of Deviation (LOD) for a 132 kV transmission connection, the majority of which will be supported on lattice steel tower OHL, with the section between Thurso South and Weydale Mains to be laid as an underground cable. The Proposed LOD for the 132 kV OHL will be brought forward within a section 37 application for consent, under the Electricity Act 1989, which will be supported by an Environmental Statement (ES).

Underground cabling will be delivered as Permitted Development under the Town and Country Planning (General Permitted Development) (Scotland) Order 1992. Potential environmental impacts of the underground cable will however also be considered within the ES.
1 INTRODUCTION

1.1 Overview

1.1.1 Scottish Hydro Electric Transmission Plc (SHE Transmission) is proposing to construct a new 22 km double circuit 132 kV transmission connection (the Proposed Development) supported by steel lattice towers, between a consented new substation south of Thurso (Thurso South substation) and a new substation at Gills Bay (Gills Bay substation) (Figure 1.1).

1.1.2 A programme of consultation was carried out with stakeholders and local communities between July and September 2013 in order to gather comments and feedback on the 'preferred connection option' (comprising preferred alignment and preferred conductor support type) presented in Figures 1.2a and 1.2b.

1.1.3 This Report on Consultation documents the consultation process and the key responses received, and goes on to explain how the developing design has responded to issues through the Proposed Limits of Deviation (LOD) for which SHE Transmission now intends to make a section 37 application for consent under the Electricity Act, 1989.

1.1.4 The remainder of this Report on Consultation is structured as follows:

- Section 2 provides a brief summary of the project background and project description;
- Section 3 sets out the consultation process, including dates, public exhibitions and the list of statutory and non-statutory consultees;
- Section 4 provides a brief description of the main comments and feedback obtained during the consultation process; and
- Section 5 sets out the response to consultations by SHE Transmission and the resultant design changes which have occurred.
2 PROPOSED DEVELOPMENT

2.1 Project Background

2.1.1 As the transmission license holder in the north of Scotland, SHE Transmission has a duty to facilitate connection to the electricity transmission system. At present there is no transmission infrastructure in the Gills Bay area to provide connections for the proposed marine generation in the Pentland Firth and Orkney Waters. SHE Transmission has identified the need for a new 132 kV connection between Gills Bay and the recently consented new substation near Geiselittle, known as Thurso South.

2.1.2 The approach to the Routing Study has been to develop and explore a range of potential connection options from the consented Thurso South substation to the proposed Gills Bay substation, seeking to avoid environmental constraints (identified in Figures 1.2a and 1.2b) where possible. The result of the Routing Study was the identification of an environmentally preferred connection option. Indicative draft Limits of Deviation (LOD) were developed, which indicated the practical limits within which a new 132 kV OHL could be constructed. Together the preferred connection option and indicative draft LOD formed the basis of the consultation process.

2.2 Project Description

2.2.1 The preferred connection option (shown on Figures 1.2a and 1.2b) comprised a new 22 km double circuit 132 kV OHL supported on lattice steel towers, between the consented Thurso South substation (National Grid Reference (NGR) ND 12040 64968) and a new proposed substation at Gills Bay (Gills Bay substation) (NGR ND 29443 72020), following an alignment to the south of the Hill of Olrig and the Moss of Greenland.
3 THE CONSULTATION PROCESS

3.1 Overview

3.1.1 In accordance with established methodology for route selection currently employed by SHE Transmission\(^1\) a process of consultation on the preferred connection option was implemented.

**Methods of Consultation**

3.1.2 A variety of methods were used to consult on the preferred connection option.

3.1.3 To inform the Routing Study, quarterly update meetings were held with statutory consultees (Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH) and the Highland Council (THC)) to discuss the connection options. Regular consultation has been held with landowners as part of the wayleave agreement process.

3.1.4 Following the identification of a preferred connection option, a Consultation Document\(^2\) was produced and distributed for comment in July 2013. The Consultation Document describes the need for the Proposed Development. The rationale for the preferred connection option is described in detail with a description of the Routing Study process, including discussion of environmental features and sensitivities considered in the analysis of route options.

3.1.5 The consultation process comprises the following:

- The Consultation Document and covering letter were submitted to key statutory and non-statutory stakeholders inviting comments (July 2013);
- The Consultation Document was placed on deposit at Council Offices in both Thurso and Wick. Copies were also made available at Caithness Horizons in Thurso and at Mey Village Hall from Monday 8th July 2013;
- The Consultation Document was made available on the SSE website at http://www.sse.com/DounreayGillsBay/ProjectInformation/ from 12th July 2013;
- A summary information leaflet was made available during the public exhibitions detailed below (Annex D);
- A public consultation exhibition was held at Mey Village Hall, on the 5th September 2013 (11 am – 2.30 pm and 5 pm – 7.30 pm);
- A second public consultation exhibition was held at Caithness Horizons, Thurso on the 6th September 2013 (3 pm – 7.30 pm);

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\(^1\) SHE Transmission (Formerly SHETL) (2004): Electricity Transmission Development Proposals in Scotland: Guidance to the Routing of High Voltage Steel Lattice Tower Transmission Lines leading to an Application for Consent in Scotland.

\(^2\) SHETL (2013): Caithness Reinforcements - Consultation Document Gills Bay 132 kV, July 2013
3.1.6 The consultation period closed on Monday 9th September 2013.

3.2 Consultees

3.2.1 Table 3.1 lists the statutory and non-statutory organisations invited to consider the Consultation Document.
### Table 3.1: List of Statutory and Non-Statutory Consultees

<table>
<thead>
<tr>
<th>Statutory Consultees</th>
<th>Non-Statutory Consultees</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Highland Council (THC)</td>
<td>Scottish Environment Protection Agency (SEPA)</td>
</tr>
<tr>
<td>Scottish Natural Heritage (SNH)</td>
<td>Historic Scotland (HS)</td>
</tr>
<tr>
<td>Scottish Government (SG)</td>
<td></td>
</tr>
<tr>
<td><strong>Statutory Consultees</strong></td>
<td><strong>Non-Statutory Consultees</strong></td>
</tr>
<tr>
<td>The Highland Council (THC)</td>
<td>Archaeology Scotland (formerly Council for Scottish Archaeology)</td>
</tr>
<tr>
<td>Scottish Natural Heritage (SNH)</td>
<td>Scottish Environment Protection Agency (SEPA)</td>
</tr>
<tr>
<td>Scottish Government (SG)</td>
<td>Historic Scotland (HS)</td>
</tr>
<tr>
<td><strong>Non-Statutory Consultees</strong></td>
<td><strong>Statutory Consultees</strong></td>
</tr>
<tr>
<td>Archaeology Scotland (formerly Council for Scottish Archaeology)</td>
<td>The Highland Council (THC)</td>
</tr>
<tr>
<td>Scottish Environment Protection Agency (SEPA)</td>
<td>Scottish Natural Heritage (SNH)</td>
</tr>
<tr>
<td>Scottish Government (SG)</td>
<td>Scottish Natural Heritage (SNH)</td>
</tr>
<tr>
<td><strong>Community Councils, Politicians and others</strong></td>
<td><strong>Community Councils, Politicians and others</strong></td>
</tr>
<tr>
<td>Bower Community Council</td>
<td>Castletown Community Council</td>
</tr>
<tr>
<td>Dunnet &amp; Canisbay Community Council</td>
<td>Thurso Community Council</td>
</tr>
<tr>
<td>Mr John Thurso MP</td>
<td>Rob Gibson MSP</td>
</tr>
<tr>
<td>Ward 2 - Thurso Councillors</td>
<td>Ward 4 - Landward Caithness Councillors</td>
</tr>
<tr>
<td>Potential landowners (16 in total)</td>
<td><strong>Community Councils, Politicians and others</strong></td>
</tr>
</tbody>
</table>

3.2.2 Feedback from consultees was sought by the following methods:

3.2.3 A series of questions were asked within the Consultation Document seeking comments on the project rationale and whether environmental, economic and
technical issues have been appropriately balanced or if any issues have been overlooked;

- Comments from consultees were received through a variety of means, including emails and written letters.

### 3.3 Public Consultation Exhibitions

#### 3.3.1 The exhibitions were advertised in the John O’Groat Journal on 23 August 2013. A copy of the public notice is provided in Annex C. The notice was also circulated to local Community Councils; and displayed on notice-boards and in shop windows in the local area, where possible. The public exhibitions provided a forum to share information about the Routing Study and the preferred connection option. Attendees were invited to take a summary information leaflet (see Annex D) and to consider information presented on a series of exhibition boards (see Annex E). The exhibition boards detailed:

- the background to the project, the project need and overview of the consultation process;
- a description of the project, the project programme and information about the Routing Study process;
- an indicative description of tower design options and the construction process;
- a description of the key environmental sensitivities considered during the Routing Study process;
- a description of the preferred connection option, questions for consideration and next stages; and
- a description of the proposed Gills Bay substation.

#### 3.3.2 All members of the public were invited to complete a feedback form (see Annex F).

#### 3.3.3 Thirty-five members of the public attended the public consultation exhibition held in Mey Village Hall, and forty members of the public attended the public consultation exhibition held in Caithness Horizons, Thurso. A total of seventeen completed feedback forms were received following the exhibitions.
### 4 CONSULTATION RESPONSES AND KEY ISSUES

#### 4.1 Summary of comments

4.1.1 In total, 30 consultation responses were received during the consultation process, 14 from statutory and non-statutory consultees and 17 from members of the public. A list of the statutory and non-statutory consultees who responded is set out in Table 4.1 (in alphabetical order).

<table>
<thead>
<tr>
<th>Statutory and Non-Statutory Consultee Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Food and Rural Communities Directorate, Scottish Government</td>
</tr>
<tr>
<td>Bower Community Council</td>
</tr>
<tr>
<td>Civil Aviation Authority</td>
</tr>
<tr>
<td>Gills Harbour Ltd</td>
</tr>
<tr>
<td>Historic Scotland</td>
</tr>
<tr>
<td>NATS</td>
</tr>
<tr>
<td>SEPA</td>
</tr>
</tbody>
</table>

4.1.2 All consultation responses received during the consultation period have been collated and summarised into a consultation register. The consultation register summary is included in Annex B of this report.

4.1.3 The comments received and issues raised have been reviewed and classified into comments relating to the 132 kV OHL and comments relating to the Gills Bay substation proposals.

4.1.4 These comments have also been graded as: generally supportive (Pos), neutral (Neu) and issue specific (Issue). In many cases an individual respondent made more than one comment. In total, 88 comments were received from the 30 respondents listed above.

4.1.5 Table 4.2 provides a summary of the consultation responses received.
### Table 4.2: Analysis of Responses to the Consultation Process

<table>
<thead>
<tr>
<th>Source</th>
<th>Category</th>
<th>OHL preferred connection option</th>
<th>Gills Bay substation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correspondent type</td>
<td>General Public</td>
<td>Pos: 15, Neu: 8, Issue: 26</td>
<td>Pos: 1, Neu: 0, Issue: 1</td>
</tr>
<tr>
<td></td>
<td>Statutory Consultees</td>
<td>Pos: 0, Neu: 3, Issue: 9</td>
<td>Pos: 0, Neu: 1, Issue: 0</td>
</tr>
<tr>
<td></td>
<td>Non-Statutory Consultees</td>
<td>Pos: 0, Neu: 10, Issue: 10</td>
<td>Pos: 0, Neu: 3, Issue: 1</td>
</tr>
</tbody>
</table>

4.1.6 Responses were received:
- making general comments;
- relating to the parameters/design of the preferred connection option; and
- relating to environmental concerns with the preferred connection option.

4.1.7 Responses were collated and input into a consultation register (Annex B). Within this register consultees were recorded, along with a summary of their comments and whether or not each comment was positive, neutral or issue specific.

4.1.8 Comments relating to the parameters/design of the preferred connection option are considered further within section 5 of this report. Responses received relating to environmental concerns with the preferred connection option have been summarised in section 6 of this report and will be taken forward for further consideration as part of the EIA. Comments specifically relating to the proposed Gills Bay substation have been referred for consideration as part of the separate, but parallel design development and environmental appraisal which is ongoing relating to those proposals.

### 4.2 Issues emerging from consultation feedback

4.2.1 Responses covered a range of topics with a number raising specific issues in relation to the preferred connection option. A number of respondents expressed ‘in principle’ support for the preferred connection option.

4.2.2 Common themes emerging from the consultation responses received related to:
- the preferred connection option as it passes to the south of the Hill of Olrig. Comments related to both the potential visibility of lattice steel towers as it passes properties to the south of Hill of Olrig, around Durran and between Wester Olrig and Reaster. One comment also expressed a preference for the Proposed Development to avoid line of sight with the existing microwave transmitters located on the Hill of Olrig;
- the preferred alignment as it passes properties to the south of Hill of Olrig, around Durran and between Wester Olrig and Reaster;
- the possibility of an underground transmission option;
- concern whether the preferred connection option could affect the value of land and properties;
- the visibility of the preferred alignment from residential properties. Comments were also received relating to a potential health risk for residents near an OHL;
- the potential for interaction with sensitive bird species and possible mitigation options to minimising bird collision risk;
- the potential for interaction with the Earney Hillock Scheduled Monument.
5 PROJECT RESPONSES TO CONSULTATIONS

5.1 Overview

5.1.1 This section of the report documents how the preferred alignment set out within the Consultation Document has subsequently responded to the issues emerging from the consultation feedback.

5.2 Design Responses

5.2.1 The indicative draft Limits of Deviation of the preferred alignment were developed to minimise effects on environmental receptors whilst affording sufficient flexibility for establishing access, tower micrositing and final routing. In response to issues raised in consultation responses, as identified in section 4.2 above and in Annex B, a number of variations to the preferred alignment (Variations 1, 2, 3, 4 and 5) were developed. These variations are shown on Figure 5.1a and 5.1b.

5.2.2 The alignment variations were proposed in response to the common themes detailed above. The objectives of the variations were:

- reducing potential effects on residential amenity / properties and on the Tulloch of Shalmstry SAM by identifying a variation for consideration to the north and east of the preferred alignment, near the consented Thurso South substation (NGR) ND 14607 64269;
- reducing potential for landscape and visual effects associated with an OHL crossing and potentially breaching the skyline of the southern flank of the Hill of Olrig, by proposing a variation further south on a lower elevation as it crosses the Hill of Olrig;
- reducing potential for an OHL to affect the operations of the existing TV and radio transmitter masts, located on the summit of the Hill of Olrig, by increasing the separation distance and avoiding line-of-site between the two pieces of infrastructure;
- reducing potential effects on residential amenity/properties by proposing a variation south of existing residential properties identified to the south of Hill of Olrig and around Durran (NGR) ND 193 642 642 and Tain (ND 222662);
- reducing potential effects on visual amenity, particularly in views from the A9 by proposing a variation which included a limited section of undergrounding;
- minimise potential to introduce bird collision risk in an identified sensitive bird area between Lochend and Syster and Loch Durran SSSI by proposing a variation to the south of the Loch Durran SSSI, instead of passing through it;
- reducing potential setting effects on the Earney Hillock Chambered Cairn scheduled monument by proposing a variation to the north of the preferred alignment at a minimum distance of 300 m from the SAM;
- reducing potential effects on residential amenity/properties by proposing a variation to the north of Bowermadden (NGR) ND 22793 65192) to increase
flexibility to avoid effects on principal views from residential properties, near Moss of Tain;

**Variation 1**

5.2.3 Variation 1 leaves the preferred alignment, heading north east from a point immediately east of Borgie Mains. Passing to the north of Wester Olrig this variation continues on this alignment across the B876 before turning east close the Moss of Tain and crossing the Moss of Greenland towards Reaster.

5.2.4 It was proposed in response to observations made by Historic Scotland that the preferred alignment may result in significant adverse effects on the setting of Earney Hillock Schedule Monument (SAM). The variation also responds to the possibility of impact on residential properties at Bowermadden and at Tain.

5.2.5 Whilst variation 1 offers potential benefits in terms of increasing the distance from Earney Hillock SAM, its alignment through the Loch of Durran SSSI and areas of known bird activity at Borgie Mains was considered less preferable than the preferred alignment. Variation 1 was therefore discounted.

**Variation 2**

5.2.6 Variation 2 follows a similar alignment to variation 1 as it departs from the preferred alignment at Borgie Mains. It turns east as it crosses the B876 running approximately parallel to Variation 1, before turning north east across the Moss of Greenland towards Reaster.

5.2.7 It was proposed as an alternative means to achieve the objectives of variation 1.

5.2.8 Whilst variation 2 also offers potential benefits in terms of increasing the distance from Earney Hillock SAM, its alignment through the Loch of Durran SSSI and areas of known bird activity at Borgie Mains was considered less preferable than the preferred alignment. Variation 2 was therefore also discounted.

**Variation 3**

5.2.9 Variation 3 departs from the preferred alignment on a south east heading, towards South Weydale before turning east across farmland towards Hilliclay. It passes to the north of a small woodland area at Fryster before crossing an unnamed road at Durran between two residential properties. From there, it turns north eastwards to the west of Hoy to re-join the preferred alignment at Wester Olrig.

5.2.10 It was proposed to address possible landscape and visual effects from crossing and potentially breaching the skyline of the southern flank of the Hill of Olrig.

5.2.11 Variation 3A offers an alternative alignment around Bullimore. Variation 3B offers an alternative alignment to the south of Wester Olrig.

5.2.12 On further environmental analysis, variation 3A leading into 3 leading into 3B was considered preferable to the preferred alignment particularly in terms of visual amenity as it crosses the Hill of Olrig. It was also considered to offer the benefit of increasing the separation distance from existing TV transmitter masts located on the Hill of Olrig. It also offers potential benefits over the preferred
alignment when considering the potential for interaction with known bird and flight feeding activity around Borgie Mains.

**Variation 4**
5.2.13 Variation 4 exits Thurso South substation from the north east corner in an easterly direction, crossing the A9 before turning south east and following a more easterly alignment past Shalmsry when compared to the preferred alignment. Passing approximately 100 m to the west of two individual properties at Weydale, the variation then passes to the south of a small woodland area at Fryster before cross an unnamed road at Durran between two residential properties, and then following a similar alignment to variation 3B until Wester Olrig. From this point it follows a north easterly alignment towards Moss of Tain, orientating eastwards across the Moss of Tain to re-join the preferred alignment at the Moss of Greenland.

5.2.14 Variation 4 was proposed as alternative means of achieving the objectives of variations 1, 2 and 3.

5.2.15 Variation 4 was considered preferable over the preferred alignment as a result of its more southerly alignment across the Hill of Olrig. In addition, variation 4 also offers the potential to reduce potential interaction with known bird and flight feeding activity around Borgie Mains.

5.2.16 Variation 4A follows the same alignment as 4 but allows for the section between Thurso South substation and Weydale Mains to be installed as underground cable, rather than OHL.

5.2.17 When variation 3 and 4 were compared against each other, the opportunity offered by variation 4 to maximise distance from the summit of the Hill of Olrig, was considered sufficient to identify an overall preference for variation 4.

5.2.18 Variation 4A was preferred over variation 4 between Thurso South and Weydale as variation 4A comprises an underground cable through this area and therefore offers opportunity to minimise impacts on visual amenity, particularly in views from the A9.

**Variation 5**

5.2.19 Variation 5 is the same as Variation 4A leading into Variation 4 from Thurso South substation through to a point to the south east of Wester Olrig, at which point variation 5 orientates to the north east towards Tain. Variation 5 then passes approximately 100m to the north of the residential property at ND 227652 before turning onto a south easterly alignment to join Variation 2, at which point it aligns to the north east across the Moss of Tain.

5.2.20 Variation 5 was proposed following consideration of variations 1 to 4, in further response to concerns raised by residents of properties in this area; namely that an OHL would cause significant visual effects on views from the identified properties. Variation 5 sought to follow an alignment which orientates the OHL to the rear of individual residential properties, where at all possible, and was considered to offer a possible marginal improvement over variation 4 through this area in landscape and visual amenity terms.

5.3 **Proposed Route and Limits of Deviation**

5.3.1 The Proposed Route and proposed Limits of Deviation are shown in Figure 5.2a, 5.2b and 5.2c. The Proposed LOD follows the alignment of variation 4a leading into variation 4 leading to variation 5 as described above, re-joining the preferred
alignment at the Moss of Greenland. The Proposed LOD has responded where possible, to comments and concerns raised during the consultation process and is considered to represent a balance between environmental, engineering, cost and other factors.

5.4 Responses Relevant to Subsequent EIA

5.4.1 Consultation responses relating to specific environmental issues were also reviewed to ensure they receive appropriate consideration when defining and delivering the scope of the Environmental Impact Assessment.

5.4.2 Table 5.2 summarises the environmental issues raised, with relevance to the EIA and identifies how SHE Transmission proposes to respond.
### Table 5.2: Comments Received Regarding Specific Issues and SHET Response

<table>
<thead>
<tr>
<th>Topic</th>
<th>Comment received</th>
<th>SHET Response</th>
</tr>
</thead>
</table>
| Cultural Heritage                               | Historic Scotland (HS) identified that the preferred connection option is in close proximity to Earney Hill Chambered Cairn.  
HS advised that consideration should be given to views from the Castle of Mey, especially from its upper levels.  
Consideration should also be given to potential impacts to Earls Cairn Chambered Cairn (Index No. 449) and Thomsonfield (Index No. 588). | The preferred alignment and LOD has subsequently been revised as reflected within the Proposed LOD to increase the separation from Earney Hillock Chambered Cairn.  
Effects on views from the Castle of Mey will be considered through EIA in the Landscape and Visual assessment.  
Effects on the setting of designated cultural heritage features will be considered through the EIA in the Cultural Heritage assessment. |
| Visual amenity, residential amenity and local community | A number of responses were received relating to visual amenity particularly within the Bower Community Council area.  
Other issues raised included;  
- possible effect on property values and possible health risks associated with proximity to OHLs.  
- safety; specifically the possibility of lightning strikes  
- potential to affect recreational fishing within Loch Heilen. | Effects on visual amenity will be considered through EIA in the Landscape and Visual assessment.  
The preferred alignment and indicative draft LOD has subsequently been revised to take account where ever possible of existing residential properties.  
The Proposed LOD also includes Variation 4a which makes provision for undergrounding of the transmission connection between Thurso South and Weydale in response to the potential for impacts on visual amenity resulting from the combination of more than one OHL in the vicinity of the Thurso South substation,  
The potential effects associated with Electro Magnetic Fields (EMF) from the OHL and other safety/recreational issues will be considered during the scoping stage for the EIA. |
### Table 5.2: Comments Received Regarding Specific Issues and SHET Response

<table>
<thead>
<tr>
<th>Topic</th>
<th>Comment received</th>
<th>SHET Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telecommunications</strong></td>
<td>BT Openreach advised that when the final route has been determined, drawings should be provided, to allow BT to assess any required crossings of BT overhead cables. Further technical design information relating to these issues was requested.</td>
<td>SHE Transmission will provide BT with drawings of the Proposed Development at the appropriate stage.</td>
</tr>
<tr>
<td><strong>Ornithology</strong></td>
<td>Responses identified that the preferred connection option crosses the path of migrating birds to Loch Heilen. RSPB Scotland requested copies of ornithological surveys and habitat information to better inform their response.</td>
<td>Comprehensive ornithological surveys were completed over a 12 month period between August 2011 and August 2012. Preliminary analysis of this data was used to inform the Routing Study. This data is consistent with RSPB observations of flightlines around Loch Heilan and also affecting alternative routes. Survey data will be analyses and results set out within the EIA. An appropriate Collision Risk Assessment will be completed as part of the EIA process.</td>
</tr>
<tr>
<td><strong>Other Issues</strong></td>
<td>Other responses made comment on the following issues: • potential for loss of productive agricultural land to accommodate tracks and tower bases; • the possibility of an underground transmission option; • disruption to farmers and local residents during the construction period; • concern for wildlife.</td>
<td>Consideration will be given to these issues through the EIA process.</td>
</tr>
<tr>
<td><strong>Cumulative Impacts</strong></td>
<td>SNH advised that “Cumulative impacts should be assessed with developments that are constructed, approved and at application stage. There are currently two wind farms near Loch Heilan for which</td>
<td>Cumulative effects with these developments will be considered through the EIA process.</td>
</tr>
</tbody>
</table>
Table 5.2: Comments Received Regarding Specific Issues and SHET Response

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<tr>
<td></td>
<td>consideration will have to be given&quot;. These developments are: Earl's Cairn Wind Farm, a 13 turbine Wind Farm, currently at the Scoping stage, located 1.3 km from the Proposed Development at Gills Bay substation; and Lyth Wind Farm, a 10 turbine Wind Farm, currently at the Scoping stage, located 200 m east of Proposed Developments at Moss of Greenland.</td>
<td></td>
</tr>
</tbody>
</table>
6 SUMMARY

6.1.1 This document sets out the project responses to consultations received on Consultation Document (issued July 2013). All responses received have been logged and recorded on a project consultation register, provided in Annex B.

6.1.2 Variations to the preferred connection option and preferred LOD have been developed and analysed in response to the issues raised.

6.1.3 The resultant Proposed Route and Proposed LOD (Figures 5.2a, 5.2b and 5.2c) will form the basis of the section 37 consent application and the EIA.
Annex A: Figures

Figure 1.1: Study Area

Figure 1.2a and 2b: Preferred Connection Option (the preferred alignment) and possible variations

Figure 5.1a and 5.1b: Post Consultation Alignment Variations

Figure 5.2a, 5.2b and 5.2c: Propose Route and Limits of Deviation
Annex B: Consultation Register
Annex C: Consultation Event Poster
Annex D: Exhibition Leaflet
Annex E: Exhibition Boards
Annex F: Exhibition Feedback Form