Agenda Item	**5.1**
Report No	**PLS/033/20**

HIGHLAND COUNCIL

Committee: South Planning Applications Committee

Date: 16 June 2020

Report Title: **Scottish Hydro Electric Transmission PLC – Skye Reinforcement**

Report By: Area Planning Manager South

1. Purpose/Executive Summary

1.1 Description: Skye Reinforcement – Erection of replacement high voltage (132kv) transmission line between Ardmore, Skye and Fort Augustus

1.2 Ward: In the South Planning Applications Committee area:

- 11 – Caol and Mallaig
- 12 – Aird and Loch Ness

2. Recommendations

2.1 Members are asked to note the submission and highlight any material issues they wish to be brought to the attention of the applicant before the submission of the application for consent under Section 37 of the Electricity Act.

3. BACKGROUND

3.1 This report seeks to inform the South Planning Applications Committee of the pre-application consultations being undertaken by Scottish Hydro Electric Transmission (SHET) on a forthcoming Section 37 application under the Electricity Act 1989. Such applications are not formally required to submit a Pre Application Notice to the Planning Authority, but the consultation is nevertheless welcome. A public consultation was launched in March 2020, however the local events could not be take forward as a result of the ongoing restrictions related to the Covid-19 pandemic. The consultation has been based online and public events will be rescheduled for when it is safe to do so.

3.2 A similar report to this has also been made to the North Planning Applications Committee given it passes through the area within their remit as well. The Council were consulted as a key stakeholder in March 2020 on the emerging proposals and are invited to comment on the consultation document which sets out the following:

- Existing transmission infrastructure;
- Need for the project;
- Proposed development solution;
- Access during construction; and
- Considerations of route options.

3.3 The consultation document and the route option plans are attached to this paper with background reports available online at https://www.ssen-transmission.co.uk/projects/skye-reinforcement/. In the consultation document the following questions have been asked by the developer:

1. Have we adequately explained the changes in respect of the need for this Project?
2. Have we adequately explained the reasons why the capacity of the line has to increase which will result in changes to the existing infrastructure along its route?
3. Have we adequately explained the methodology used to re-appraise the preferred route for the new OHL design?
4. Are there any factors, or environmental features, that you consider may have been overlooked during the route appraisal process?
5. Do you have any other comments in relation to the drivers for the project, related to the transmission infrastructure requirements, or preferred route?

Members are asked for their view on these questions to inform a response which will be made to this early consultation.

4. DESCRIPTION OF PROPOSED DEVELOPMENT

4.1 The proposal comprises the reinforcement of the high voltage electricity network, from Ardmore on the Isle of Skye, to Fort Augustus. The purpose if this is to replace the existing 132kV overhead transmission line from Fort Augustus to Ardmore, built in the 1970's, which is the sole connection from the mainland electricity transmission system to Skye and the Western Isles. There are three primary reasons for the replacement:

- Security of electricity supply;
- Condition of existing infrastructure; and
- Requirement for increased capacity to accommodate renewable energy developments.

4.2 The proposal can be broken down into the following main elements:

- Fort Augustus substation to Broadford substation - it is proposed to construct a new double circuit 132kV overhead line (OHL) comprising steel structures. The existing Fort Augustus to Skye Tee 132kV trident wood pole OHL, and the existing 132kV steel lattice OHL between Skye Tee and Broadford would be dismantled and removed once the new OHL is operational;
- Broadford substation and Edinbane substation - the existing single circuit wood pole trident 132kV OHL would be replaced with a new double circuit 132kV OHL comprising steel structures. The existing OHL would be dismantled and removed once the new OHL is operational; and
- Edinbane substation and Ardmore substation - the existing single circuit wood pole trident 132kV OHL would be replaced with a new higher capacity132kV trident wood pole OHL. During construction, the existing OHL and its replacement would run in tandem but on energisation of the new OHL, the existing OHL would be dismantled and removed.

5. SITE DESCRIPTION

5.1 The development covers an extensive area across the Council, passing through four electoral wards. A preferred route corridor has been defined as shown in greater detail on the attached plans.

5.2 End to end via the public road network the line covers over 100 miles, and whilst construction access will in part use the trunk road network, this project will require construction access from a number of Council roads. This road network varies considerably in standard, but there is potential for the development to require the use of numerous single track roads.

5.3 Across the length of all corridors route options are a significant number of potential impacts on the following features:

- Settlements/ Communities (e.g. Broadford, Glenelg, Fort Augustus;
- National Scenic Areas (e.g. the Cuillin Hills, Knoydart and Kintail);
- Listed Buildings (e.g. Dunvegan Castle, Eilean Donan Castle, Caledonian
- Canal);
- Historic Sites / Monuments (e.g. Bernera Barracks, Glenshiel Battlefield);
- Sites of Special Scientific Interest (SSSI) (e.g. Sligachan Peatlands, Strath);
- Special Protection Areas (SPA's) (e.g.Kinloch and Kyleakin Hills);
- Special Areas of Conservation (SAC's) (e.g. Loch Duich, Long and Alsh Reefs)

- Special Landscape Areas 9e.g. Trotternish and Tianavaig; Loch Ness and
- Duntelchaig);
- Areas of Wild Land (e.g. Cuillins; Central Highlands; Kinlochhourn – Knoydart –
- Morar);
- Priority Peatland;
- Conservation Areas;
- Ancient Woodland.

For the avoidance of doubt this list is not exhaustive and other features will also be impacted both in the categories listed above but other more local categories such as recreational paths and physical constraints.

6. DEVELOPMENT PLAN POLICY

The following policies are relevant to the assessment of the application

6.1 Highland Wide Local Development Plan 2012

28 - Sustainable Design
29 - Design Quality & Place-making
30 - Physical Constraints
31 - Developer Contributions
51 - Trees and Development
52 - Principle of Development in Woodland
55 – Peats and Soils
56 - Travel
57 - Natural, Built & Cultural Heritage
58 - Protected Species
59 - Other Protected Species
60 - Other Important Habitats
61 – Landscape
63 – Water Environment
64 - Flood Risk
66 - Surface Water Drainage
69 – Electricity Infrastructure
72 – Pollution
77 – Public Access

6.2 Inner Moray Firth Local Development Plan (2015)

No site specific policies apply.

West Highland and Islands Local Development Plan (2019)

No site specific policies apply.

6.3 Highland Council Supplementary Planning Policy Guidance

Construction Environmental Management Process for Large Scale Projects (August 2010)
Highland Historic Environment Strategy (Jan 2013)
Highland's Statutorily Protected Species (March 2013)
Highland Renewable Energy Strategy & Planning Guidelines (May 2006)
Standards for Archaeological Work (March 2012)
Sustainable Design Guidance
Trees, Woodlands and Development (Jan 2013)

6.4 **Scottish Government Planning Policy and Guidance**

Scottish Planning Policy (June 2014)
National Planning Framework 3 (June 2014)
Onshore Wind Policy Statement (December 2017)
Scottish Energy Strategy (December 2017)
PAN 1 / 2011 – Planning and Noise;
Circular 1/2017 – Environmental Impact Assessment;
PAN 60 – Planning for Natural Heritage;
2020 Routemap for Renewable Energy;
Onshore Wind Turbines; and
Wind Farm developments on Peat Lands

7. POTENTIAL MATERIAL PLANNING CONSIDERATIONS

7.1
- Development Plan;
- National Policy;
- Planning History;
- Roads and Transport;
- Water Environment (including private water supplies);
- Flood Risk and Drainage;
- Peat;
- Natural Heritage (including protected species, ornithology and designated sites);
- Trees and Forestry;
- Built and Cultural Heritage;
- Design, Landscape and Visual Impact (including Cumulative impacts and Impact on Wild Land Areas);
- Access and Recreation;
- Economic Impact and Tourism;
- Noise and Shadow Flicker;
- Telecommunications;
- Aviation;
- Construction.

8. CONCLUSION

8.1 The report sets out the information submitted to date in a manner consistent with a Proposal of Application Notice under the Town and Country Planning Act. There are no such requirements for applications under the Electricity Act. Summarised are the policy considerations against which any future application will be considered as well as the potential material planning considerations and key issues

based on the information available to date. The list is not exhaustive and further matters may arise as and when a planning application is received and in the light of public representations and consultation responses.

9. IMPLICATIONS

9.1 Resource: Not applicable

9.2 Legal: Not applicable

9.3 Community (Equality, Poverty and Rural): Not applicable

9.4 Climate Change/Carbon Clever: Not applicable

9.5 Risk: Not applicable

9.6 Gaelic: Not applicable

10. RECOMMENDATION

Members are asked to note the submission and highlight any material issues they wish to be brought to the attention of the applicant before the submission of the application for consent under Section 37 of the Electricity Act.

Signature:

Designation: Acting Head of Development Management – Highland

Author: Simon Hindson

Background Papers: Documents referred to in report and in case file.

Relevant Plans: Plan 1 – Skye Reinforcement Consultation Document: Route Options March 2020

Plan 2 - Route Corridor and Alignment Options

Skye Reinforcement

Consultation Document: Route Options

March 2020

Scottish & Southern Electricity Networks


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GLOSSARY

Term	Definition
Alignment	A centre line of an overhead line, along with location of key angle structures.
Amenity	The natural environment, cultural heritage, landscape and visual quality. Also includes the impact of SHE Transmission's works on communities, such as the effects of noise and disturbance from construction activities.
Conductor	A metallic wire strung from structure to structure, to carry electric current.
Consultation	The dynamic process of dialogue between individuals or groups, based on a genuine exchange of views, normally, with the objective of influencing decisions, policies or programmes of action.
Corridor	A linear area which allows a continuous connection between defined connection points. The corridor may vary in width along its length; in unconstrained areas it may be many kilometres wide.
Design Solution	The design of the transmission infrastructure (location, structure type) between Fort Augustus and Ardmore
Environmental Impact Assessment (EIA)	A formal process set down in The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 used to systematically identify, predict and assess the likely significant environmental impacts of a proposed project or development.
Fort Augustus to Skye Project	SHE Transmission plc has previously promoted the Fort Augustus to Skye Project, which was based upon a design that proposed a new 132 kV wood pole OHL between Fort Augustus and Broadford with the existing steel lattice OHL remaining in place, and a replacement 132 kV wood pole OHL between Broadford and Dunvegan. This is now replaced by this Skye Reinforcement Project, in respect of which further consultation is being carried out.
Gardens and Designed Landscapes (GDLs)	The Inventory of Gardens and Designed Landscapes lists those gardens or designed landscapes which are considered by a panel of experts to be of national importance.
GWDTE	Ground Water Dependent Terrestrial Ecosystem
Habitat	Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities.
Kilovolt (kV)	One thousand volts.
Landscape Character Type	A defined area of consistent landscape character identified in either the Skye and Lochalsh Landscape Assessment (Stanton, 1996); Lochaber Landscape Character Assessment (ERM, 1998); and/or Inverness District landscape character assessment (Richards, 1999).[1]
Listed Building	Building included on the list of buildings of special architectural or historic interest and afforded statutory protection under the 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997' and other planning legislation. Classified categories A – C(s).
Limit of Deviation (LOD)	The area either side of the proposed alignment within which micrositing of structures may take place in accordance with the conditions of the Section 37 consent.
Micrositing	The process of positioning individual structures to avoid localised environmental or technical constraints.

[1] Whilst it is recognised that a suite of updated National Landscape Character Types has been published by Scottish Natural Heritage in 2019, the previously published areas have been used in this case for continuity with previous routing exercises undertaken in 2016. It is envisaged that the revised areas would be used in preference for carrying out Landscape and Visual Impact Assessment (LVIA) as the project moves forward.

Term	Definition
Mitigation	Term used to indicate avoidance, remediation or reduction of adverse impacts.
National Scenic Area (NSA)	A national level designation applied to those landscapes considered to be of exceptional scenic value.
Overhead line (OHL)	An electric line installed above ground, usually supported by lattice steel towers or poles.
Plantation Woodland	Woodland of any age that obviously originated from planting.
RAG Rating	Each topic within the environmental, technical and cost categories should be considered in terms of the potential for the development to be constrained and a Red/Amber/Green (RAG) rating applied as appropriate.
Riparian Woodland	Natural woodland home for plants and animals occurring in a thin strip of land bordering a stream or river.
Route	A linear area of approximately 1 km width (although this may be narrower/wider in specific locations in response to identified pinch points / constraints), which provides a continuous connection between defined connection points.
Route (preferred)	A route for the overhead line taken forward to stakeholder consultation following a comparative appraisal of route options.
Route (proposed)	A route taken forward following stakeholder consultation to the alignment selection stage of the overhead line routeing process.
Routeing	The work undertaken which leads to the selection of a proposed alignment, capable of being taken forward into the consenting process under Section 37 of the Electricity Act 1989.
Scheduled Monument	A monument which has been scheduled by the Scottish Ministers as being of national importance under the terms of the 'Ancient Monuments and Archaeological Areas Act 1979'.
Section	Due to the length of the project, it has been necessary to split the broad corridor into 'sections' to more easily describe, identify and assess route options. There are seven sections from Section 0 to Section 6.
Semi-natural Woodland	Woodland that does not obviously originate from planting. The distribution of species will generally reflect the variations in the site and the soil. Planted trees must account for less than 30% of the canopy composition.
Sites of Special Scientific Interest (SSSI)	Areas of national importance. The aim of the SSSI network is to maintain an adequate representation of all natural and semi-natural habitats and native species across Britain.
Skye Reinforcement Project	The current project being consulted upon.
Span	The section of overhead line between two supporting structures.
Special Area of Conservation (SAC)	An area designated under the EC Habitats Directive to ensure that rare, endangered or vulnerable habitats or species of community interest are either maintained at or restored to a favourable conservation status.
Special Landscape Area (SLA)	Landscapes designated by The Highland Council which are considered to be of regional/local importance for their scenic qualities.
Special Protection Area (SPA)	An area designated under the Wild Birds Directive (Directive74/409/EEC) to protect important bird habitats.
Stakeholders	Organisations and individuals who can affect or are affected by SHE Transmission works.
Study Area	The area within which the corridor, route and alignment study takes place.

Term	Definition
System Planning Pathway	A system planning pathway looks at medium to long term network needs to determine electrical transmission infrastructure requirements (Development Pathway).
The National Grid	The electricity transmission network in Great Britain.
Volts	The international unit of electric potential and electromotive force.
Wayleave	A voluntary agreement entered into between SHE Transmission and a landowner upon whose land an overhead line is to be constructed for the installation and retention of the transmission equipment.
Wild Land Area (WLA)	A series of 42 mapped areas which have been identified by Scottish Natural Heritage as comprising the most extensive areas of high wildness within Scotland, following a process of interpretive mapping and site survey. WLA is not a statutory designation but these areas are considered to be nationally important.

PREFACE

This Consultation Document has been prepared by Scottish Hydro Electric Transmission plc (SHE Transmission) with input by ASH Design and Assessment Ltd. to seek comments from all interested parties on the proposed approach to meeting the electricity transmission infrastructure requirements and the preferred route for the proposed Skye Reinforcement Project between Fort Augustus Substation and Ardmore Substation on the Isle of Skye.

The Consultation Document is available online at https://www.ssen-transmission.co.uk/projects/skye-reinforcement/

Copies will be placed for public viewing during normal working hours at the following locations:

Fort Augustus Service Point	Memorial Hall, Fort Augustus, PH32 4DJ
Invergarry Post Office	Invergarry, PH35 4HG
Glenelg Post Office	Glenelg, Kyle, IV40 8JR
Broadford Library	Library/Service Point, Old Quarry Industrial Estate, Broadford, IV49 9AB
Portree Highland Council Service Point	Tigh na Sgire, Portree, Highland, IV51 9GP
Dunvegan Post Office	Dunvegan, Isle of Skye IV55 8GU

Public consultation events detailing the proposals described in this document will be held at the following times and locations:

Dunvegan Community Hall	Monday 16 March 2020	3pm – 7pm
Aros Centre, Portree	Tuesday 17 March 2020	3pm – 7pm
Broadford Village Hall, Broadford	Wednesday 18 March 2020	3pm – 7pm
Kyleakin Community Hall, Kyleakin	Thursday 19 March 2020	3pm – 7pm
Glengarry Community Hall, Glengarry	Tuesday 24 March 2020	3pm – 7pm
Glenelg Community Hall	Wednesday 25 March 2020	3pm – 7pm
Fort Augustus Village Hall, Fort Augustus	Thursday 26 March 2020	3pm – 7pm

Comments on this document should be sent to:

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All comments are requested by 24th April 2020.

EXECUTIVE SUMMARY

This Consultation Document invites comments from all interested parties on the proposals by Scottish Hydro Electric Transmission Plc (SHE Transmission) to construct a new 132 kV overhead transmission line (OHL) between Fort Augustus Substation and Ardmore Substation on the Isle of Skye. The project being promoted is known as the Skye Reinforcement Project.

The existing 132 kV OHL from Fort Augustus to Ardmore on the Isle of Skye ("the existing OHL") is the sole connection from the mainland electricity transmission system to Skye and the Western Isles. Recent studies into the condition of the existing OHL have confirmed that the section between Quoich Substation and Ardmore Substation requires to be rebuilt and, upon completion of construction of the new OHL, the existing OHL would be removed. Furthermore, as a result of an increase in the renewable energy projects for which access to the electricity transmission network is being formally requested, there is a requirement to increase the capacity of the existing OHL for the entirety of its length between Ardmore and Fort Augustus. This includes replacing the recently constructed Skye Tee line between Fort Augustus and Quoich, which will be decommissioned and dismantled on completion of the new higher capacity OHL.

To facilitate this asset replacement and also meet increased capacity requirements, a new steel structure 132 kV transmission connection is required between Fort Augustus Substation and Edinbane Substation, comprising a double circuit between Fort Augustus Substation and Broadford Substation and a single or double circuit between Broadford Substation and Edinbane Substation. A new 132 kV double trident H wood pole (H pole) OHL is also required between Edinbane Substation and Ardmore Substation. The existing OHL between Fort Augustus Substation and Broadford Substation[2] would be removed, as well as the existing 132 kV wood pole OHL between Broadford Substation and Ardmore Substation. Both sections of new OHL are collectively referred to in this Consultation Document as "the new OHL".

SHE Transmission plc has previously promoted the Fort Augustus to Skye Project, which was based upon a design that proposed a new 132 kV H pole OHL between Fort Augustus and Broadford with the existing steel lattice OHL remaining in place, and a replacement 132 kV H pole OHL between Broadford and Dunvegan. Stakeholder engagement has been undertaken in relation to the Fort Augustus to Skye Project over the period September 2016 and March 2018. The more recent asset condition studies and increased capacity requirements have triggered changes in the electricity infrastructure requirements that involves the upgrade and replacement of the existing OHL. Consequently, the Fort Augustus to Skye Project which had previously been the subject of consultation is now replaced by this Skye Reinforcement Project, in respect of which further consultation is being carried out.

The preferred route has been selected on the basis that it is considered to provide an optimum balance of environmental, technical and economic factors. It is recognised that the preferred route is through a sensitive environment with challenging terrain in places. Moving forward, confirmation of the proposed route (generally 1 km wide) and design solutions will be informed by this consultation exercise and through detailed surveys, which may identify any additional and/or currently unknown engineering, environmental or land use constraints.

Further public consultation on a preferred design solution and alignment for the new OHL (within a Limit of Deviation (LOD) approximately 200m width, depending on constraints) will take place later in 2020. It is anticipated that an application for consent under section 37 of the Electricity Act 1989 to construct and operate the new OHL on a proposed alignment will be submitted in 2021. The aim is to complete construction of the project by 2025.

When providing comments and feedback on this Consultation Document, SHE Transmission plc would be grateful for your consideration of the questions below:

1. Have we adequately explained the changes in respect of the need for this Project?

[2] Comprising the 132 kV trident wood pole between Fort Augustus and Skye Tee, and the 132 kV steel lattice OHL between Skye Tee and Broadford Substation, via Quoich.

2. Have we adequately explained the reasons why the capacity of the line has to increase which will result in changes to the existing infrastructure along its route?
3. Have we adequately explained the methodology used to re-appraise the preferred route for the new OHL design?
4. Are there any factors, or environmental features, that you consider may have been overlooked during the route appraisal process?
5. Do you have any other comments in relation to the drivers for the project, related to the transmission infrastructure requirements, or preferred route?

1. INTRODUCTION

1.1 Purpose of Document

This Consultation Document invites comments from all interested parties on the electricity transmission project being brought forward by Scottish Hydro Electric Transmission Plc (SHE Transmission) to construct a new steel structure 132 kV overhead transmission line (OHL) between Fort Augustus Substation and Edinbane Substation, comprising a double circuit between Fort Augustus Substation and Broadford Substation and a single or double circuit between Broadford Substation and Edinbane Substation. Anew double trident H wood pole (H pole) 132 kV OHL, between Edinbane Substation and Ardmore Substation. Both sections of new OHL are referred to collectively in this Consultation Document as "the new OHL".

The existing 132 kV electricity transmission OHL from Fort Augustus to Ardmore on the Isle of Skye ("the existing OHL") is the sole connection from the mainland electricity transmission system to Skye and the Western Isles. Recent studies into the condition of the existing OHL have confirmed that the section of the existing OHL between Quoich Substation and Ardmore Substation requires to be rebuilt and, upon completion of the construction of the new OHL, the existing OHL would be removed. Furthermore, as a result of the increase in renewable energy projects for which access to the electricity transmission network is being formally requested, there is a requirement to increase capacity of the existing OHL for the entirety of its length.

To facilitate this asset replacement and also meet increased capacity requirements, the new OHL represents a long-term approach in relation to planning for future transmission infrastructure requirements to Skye, particularly having regard to targets fixed by the Scottish and UK Governments to achieve net zero by 2045 and 2050 respectively. The policy objection of "net zero" is the reduction of carbon emissions by 100% from 1990 levels by 2050 in order to avoid the worst impacts of climate change and seeks to limit global warming to 1.5 degrees centigrade. This target applies to all sectors of the economy, including energy.

SHE Transmission has previously promoted the Fort Augustus to Skye Project which was based upon a design that proposed the construction of an additional double trident H pole 132 kV OHL between Fort Augustus and Broadford with the existing steel lattice OHL remaining in place, and, a replacement double trident H pole 132 kV OHL between Broadford and Dunvegan. Stakeholder engagement has been undertaken in relation to the Fort Augustus to Skye Project over the period September 2016 to March 2018. The more recent asset condition studies and increased capacity requirements have triggered changes in the system planning pathway that involves both upgrade and replacement of the existing OHL. Given the changes in both project need and scope, the previously named Fort Augustus to Skye Project is now renamed and replaced by the Skye Reinforcement Project, in respect of which further consultation is being carried out.

This Consultation Document describes the Skye Reinforcement Project, outlines the work that has been undertaken previously for the Fort Augustus to Skye Project and the changes that have occurred since work on the Fort Augustus to Skye Project was suspended. A review and appraisal of the previously assessed route options, as well as consideration of new route options identified having regard to design changes resulting from the new system planning requirements, have been undertaken to select a preferred route for the Skye Reinforcement Project. This consultation exercise provides stakeholders and members of the public with the opportunity to provide feedback on the proposed electricity transmission infrastructure requirements and preferred route option put forward.

All comments received will inform further consideration and assessment of the preferred route, and subsequent work on the proposed alignment[3], and OHL design considerations.

1.2 Document Structure

This Consultation Document is structured as follows:

Part 1: Introduction - setting out the purpose of the Consultation Document;

[3] A centre line of an overhead line, along with the location of key angle structures.

Part 2: Project Need and Overview – describes the need for the new OHL, the alternatives considered, the system planning pathway, and the principle construction considerations;

Part 3: Consideration of Route Options – describes the work that has been done to review and appraise route options;

Parts 4 to 10: provide a description of each 'section' of the OHL between the infrastructure connection points, the route options within each section and the environmental and technical considerations appraised before selecting a preferred route for each section of the new OHL; and

Part 11: Consultation on the Proposals and Next Steps – invites comments on system planning pathway, the electricity transmission infrastructure requirements, OHL route assessment process and identification of the preferred OHL route.

The main body of this document is supported by a series of figures and appendices.

1.3 Next Steps

As part of this consultation exercise, comments are sought from members of the public, statutory consultees and other key stakeholders on the project need, the proposed system planning pathway and the preferred OHL route option put forward in this report.

A Report on Consultation will be produced which will document the consultation responses received, and the decisions made having regard to these responses.

Following the identification of a proposed OHL route, further technical and environmental surveys will be undertaken to identify a preferred OHL alignment within the proposed route, and the preferred design solution to support the new OHL, which is proposed for the sections of the new OHL from Edinbane to Fort Augustus.

2. PROJECT NEED AND OVERVIEW

An overview of the existing infrastructure, the need for the project and the work undertaken by SHE Transmission to assess the electricity transmission infrastructure requirements (system planning pathway) is set out below. More detailed information on these aspects are contained within the '*Skye Overhead Line Reinforcement Strategy*', included in Appendix 1.

2.1 Existing Transmission Infrastructure

SHE Transmission owns and maintains the electricity transmission network across the north of Scotland and holds a licence under the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity transmission that will facilitate competition between current and new generators.

The existing single circuit 132 kV OHL from Fort Augustus to Ardmore on the Isle of Skye extends over 160 km in length and is the sole connection from the mainland national grid to Skye and onwards, via subsea cable to the Western Isles. The security of supply on Skye and the Western Isles is dependent on this circuit. The existing OHL to Skye is made up of distinct sections, which were constructed at different times over the last 65 years in response to changing needs. This comprises the following (see also Plate 2.1):

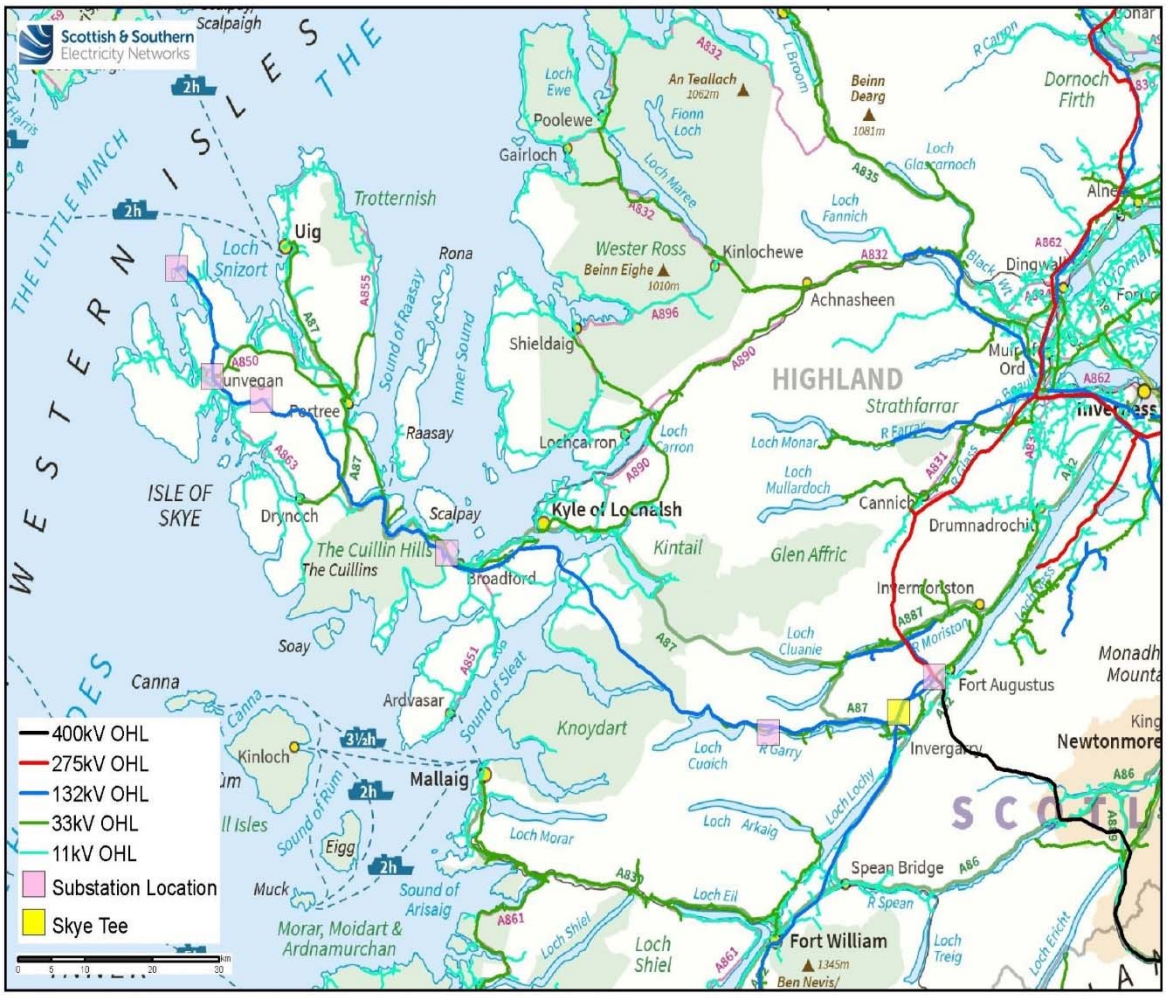
1. Fort Augustus Substation to Skye Tee (near Invergarry) – a 9 km section of OHL from Fort Augustus to the Skye Tee point, of trident wood pole construction and completed in June 2017;
2. Aberchalder to Quoich – Recently constructed OHL of trident wood pole construction;
3. Skye Tee (near Invergarry) to Quoich – single circuit steel lattice towers, strung with a single circuit 132 kV OHL constructed in the mid 1950's to connect the Quoich hydroelectric power station to the grid;
4. Quoich to Broadford – double circuit of steel lattice towers, strung with a single circuit 132 kV OHL constructed between 1979 and 1980; and
5. Broadford to Ardmore – single circuit of trident wood pole, strung with a single circuit 132 kV OHL constructed in 1989.

2.2 The Need for the Project

Over the past couple of years, several assessments have been carried out to determine the condition of the existing OHL and associated electricity infrastructure, including existing substation equipment. In addition, more applications for generation and demand connections on Skye have been received over that period. This has caused SHE Transmission to review the needs case for the project and the approach for upgrading the Skye transmission network to ensure that the best sustainable long-term solutions are identified. The need for the Skye Reinforcement Project can be summarised as follows:

- The existing OHL is reaching the end of its operational life and requires replacement in order to maintain security of supply for homes and businesses on Skye, and on the Western Isles that are currently supplied via a subsea cable from the north of Skye;
- There is a requirement to connect new renewable electricity generators on Skye which results in a requirement for an increase in capacity of the existing OHL; and
- Following commitment from both the UK and Scottish Governments to achieve net zero emissions by 2050 and 2045 respectively, SHE Transmission plans to 'future proof' the new OHL to facilitate this objective. This will allow incremental increases in capacity to support the connection of additional renewables generation when such need has been clearly demonstrated.

Plate 2.1: Existing Transmission Infrastructure



Meeting the Need – System Planning Pathway

In response to the changes in the needs case for the project, further development work and studies were undertaken to identify viable options to provide the required capacity to meet current and future requirements on this part of the transmission network. A reinforcement strategy[4], included in Appendix 1, has been developed which includes consideration of potential future generation growth scenarios that cover a credible range of possible outcomes, and which takes into account the need to achieve net zero objectives. Section 5 of the reinforcement strategy explains the approach taken to assessing the options for meeting the project need and an overview is provided below.

The key factors considered in the development of the strategy are:

- the asset condition of the existing OHL;
- known and potential future generation capacity requirements and scenarios;
- security of supply on Skye and the Western Isles;
- the possibility of the proposed Western Isles HVDC link;
- economic and environmental aspects of different system planning pathways; and
- stakeholder feedback received on relevant development work undertaken to-date.

[4] SSEN 2019, Skye Overhead Line Reinforcement Strategy (Document Reference T2BP-STR-0006)

SHE Transmission considered a range of options, including those that would not require the upgrade of the existing transmission infrastructure such as alternative connection points for the transmission infrastructure. Due to various technical considerations, the reinforcement of the Skye transmission infrastructure was selected as the most viable option. During the next stage of project development an iterative approach was taken, which allowed SHE Transmission to compare incremental development of the Skye transmission infrastructure to balance the investment and operational costs; the risk of building infrastructure which might not be needed if anticipated demand did not materialise; the economic and environmental impacts of having to upgrade the infrastructure again in the short to medium term future; and the impacts on end consumers.

Capacity requirements were identified for each of the renewables generation scenarios to develop a set of system planning pathways. These are detailed within the reinforcement strategy[4], included in Appendix 1. The options were reviewed for each of the different generation scenarios to determine what would be required to take an incremental approach to the upgrading of the transmission system on Skye to meet future capacity needs. These incremental steps and the standalone options formed a set of potential system planning pathways.

Cost estimates and programmes were created for each of those options. SHE Transmission placed greater weight on the options which satisfied the following set of criteria:

- The necessary infrastructure development must be delivered by 2045, in line with the Scottish Government's Net Zero ambitions; and
- The system planning pathway should not involve or require the replacement of infrastructure constructed between 2021 and 2045 where there would be significant environmental and economic implications in doing so.

In developing potential solutions to meet the identified need, SHE Transmission considered technical and geographic constraints relevant to the design and safe operation of the transmission infrastructure. In addition, it was recognised that there are technical/engineering design decisions that may be influenced by the views of the stakeholders, such as the design of the steel structures for the new OHL or construction methods.

Different technologies were considered in the development of the system planning pathways. These included wood pole and steel structures to support the new OHL. During consultation on the Fort Augustus to Skye Project the potential to utilise underground cables and subsea cables were considered in some sections of the proposed route. The costs of these technologies, their environmental impacts and operational performance of these were previously considered and have been reconsidered when considering the most appropriate design for the reinforcement works.

The system planning pathways to deliver the required reinforcement and upgrade of transmission infrastructure serving Skye and the Western Isles can be grouped into three main categories as follows:

- Minimal Intervention;

  This allows the asset condition to be addressed but does not provide the required future capacity and would entail rebuilding the entire OHL with a trident H wood pole.

- Incremental Approach;

  This would entail adopting the minimal intervention approach set out above, followed by the construction of an additional new parallel OHL in the short term to address capacity requirements up to around early to mid-2030s. Future capacity requirements would mean decommissioning the new parallel OHL before the end of its asset life to make way for another replacement OHL capable of carrying higher capacities.

- Balanced strategic long-term approach;

  This system planning pathway aims to ensure that there is sufficient flexibility to provide more capacity when it is required but without significant rebuild of the transmission infrastructure before the end of its

life. The significant benefit of this approach is that it minimises impacts on the environment while providing the flexibility to meet future requirements in an economic and efficient manner.

In the balanced strategic long-term approach, the new OHL section between Fort Augustus and Broadford would be built as a double 132 kV circuit supported by steel structures. In addition to providing the structures needed to carry higher capacity conductors, compared to wood pole structures, this design approach provides better reliability for customers on Skye and the Western Isles. This approach also allows the majority of the major construction activities to be undertaken at the same time, minimising the need for future major projects and the consequent disruption.

While there are a number of variants to delivering the optimum solution, SHE Transmission has had to consider a change to the proposed technical option between Broadford and Edinbane to that proposed as part of the previous Fort Augustus to Skye Project. The two main options on this section are utilisation of either OHL's constructed using H wood pole trident or steel structures. Whilst the wood pole option is easier to construct and of a smaller height than the steel tower structures, the capacity of a wood pole line is limited as it cannot support conductors capable of carrying a greater capacity of electricity, meaning that significant upgrade to that section with a replacement OHL may be required before 2030. The wood pole option neither provides the flexibility to increase capacity nor to provide demand security beyond Broadford in the future. To address this issue, consideration is being given to the use of a steel structure to support either a single circuit or double circuit, with the initial requirement being the installation of a single circuit based on capacity requirements at this time. Steel structures, whilst higher would mean that less structures would require to be constructed compared to a wood pole option.

It is proposed to build the section of the new OHL between Edinbane and Ardmore using an H-wood pole trident. This decision has been informed by the prospective capacity requirements on this section based on the generation scenarios considered.

2.3 Proposed Development Solution

To facilitate the known connection requirements, the main elements of the proposed development solution are summarised below:

- From Fort Augustus Substation to Broadford Substation, it is proposed to construct a new double circuit 132 kV OHL supported by steel structures. The existing Fort Augustus to Skye Tee 132 kV trident wood pole OHL, and the existing 132 kV steel lattice tower OHL between Skye Tee and Broadford would be dismantled and removed once the new OHL is operational;
- Between Broadford Substation and Edinbane Substation, the existing single circuit wood pole trident 132 kV OHL would be replaced with a new single or double circuit 132 kV OHL supported by steel structures. The existing OHL would be dismantled and removed once the new OHL is operational; and
- Between Edinbane Substation and Ardmore Substation, the existing single circuit wood pole trident 132 kV OHL would be replaced with a new higher capacity 132 kV trident H wood pole OHL. During construction, the existing OHL and its replacement would run in tandem but on energisation of the new OHL, the existing OHL would be dismantled and removed.

Due to the installation requirements, electrical characteristics and economics of underground cable and subsea cable options, technologies and associated substation equipment, it would not be economically viable to consider such options for the entire OHL route. The OHL solution is also preferred as it provides reliable security of supply, with a lower return to service time than underground or subsea cable options in a fault scenario. Instead, the next stage of the project development process will involve the commencement of the alignment stage and environmental impact assessment process, the purpose of which is to identify the main likely significant effects of the new OHL on the alignment within the proposed route. In that context consideration will have to be given to appropriate mitigation of predicted likely significant effects and it may be that undergrounding or the use of subsea cables will require to be considered for short sections where such mitigation could address specific local issues, subject to engineering and environmental considerations.

The use of subsea cables give rise to separate environmental considerations that would result from localised disruption to the seabed that can be expected during the lifespan of the asset, particularly during construction. The ground works associated with the installation of underground cables are potentially significant compared to the construction of an OHL. The feasibility of any underground and subsea cable routes will therefore also be subject to consideration of potential likely significant effects on environmental receptors such as ecological and/or hydrological.

Modification of the existing 33 kV distribution network in some areas is likely to be required to accommodate the new OHL, and there will be works required at the existing substations along the route; Quoich, Broadford, Edinbane and Ardmore.

It is anticipated that the supporting steel structures would be approximately 28 m in height. The span lengths between towers would vary depending on topography and altitude but would be approximately 250 m apart. Exact heights of and distances between towers would be determined after a detailed line survey and confirmed following micrositing prior to construction.

The proposed new H wood pole OHL between Edinbane and Ardmore would have a nominal height of approximately 13 m (including insulators and support), depending on ground conditions. The spacing between poles would be approximately 80 m, subject to topography, altitude and further survey and confirmed following micrositing prior to construction.

Example OHL structures are shown in Plate 2.2 for illustrative purposes.

Plate 2.2: Example OHL Structures

2.4 Access during Construction

The construction of a new OHL of approximately 160 km in length is a major engineering project with potential significant construction challenges not just in terms of scale but also having regard to remoteness of the route, terrain and seasonal weather conditions.

It is anticipated that the construction of the OHL in remote areas would be best suited to deliveries of component parts from ‘holding areas’ to site via helicopter, unless significant access accommodation works were carried out prior to construction.

In certain remote areas, for example between Glenelg and Kinlochhourn, it may also be beneficial to establish temporary camps for those employed on the construction of the OHL at the holding area sites.

Machinery used for stringing conductors onto the line, e.g. puller –tensioners and associated reel winders, if of suitable size and weight would be capable of being flown in by helicopter. However, there are likely to be locations where the dropping of equipment by helicopter may not be possible and therefore there may be a need for additional plant and/or access works.

In general, where soft ground conditions are present, stone access roads would be required to access each 'pulling position' (i.e. a location from which machinery is used to pull conductors along the line) and / or material drop sites for helicopter based deliveries, with along-line temporary access needed for excavator and foundation material using suitable all terrain vehicles (ATV). Suitable trackway panels and bog mats could be flown into strategic positions to alleviate the establishment of temporary stone access roads.

To install the majority of the towers, existing tracks would be used where possible. Preference will be given to lower impact access solutions including the use of low pressure tracked personnel vehicles and Trackway in boggy / soft ground areas to reduce any damage to, and compaction of, the ground. The use of these accesses would be kept to a minimum to minimise disruption to habitats along the route. However, temporary stone tracks may be necessary in some areas depending on existing access conditions, terrain and altitude.

Access to tower locations is likely to require either temporary stone tracks or upgrades to existing tracks. All temporary tracks would be restored as closely as possible to their pre-existing condition using natural regeneration techniques on completion of the works. It is likely that borrow pits would be required to provide materials for the creation of stone tracks, but at this stage the precise requirements or locations are not known.

Permanent access tracks would only be required in more remote areas where access during construction requires a higher specification track, and where long-term maintenance needs require permanent access. It is intended to keep requirements for permanent access tracks to a minimum.

In summary, there are four types of construction access likely to be required for this project, which are dependent on terrain and ground conditions along sections of the line. These comprise:

1. Conventional construction techniques i.e. stone tracks, with access from the nearest hardstanding in order to minimise access and egress points;
2. Temporary trackway construction techniques;
3. Temporary access tracks suitable for construction traffic for the installation of tower foundations, erection of steel supports and stringing activities; and
4. Permanent access tracks suitable for construction traffic for the installation of support foundations, erection of steel supports, stringing activities and future access for operational maintenance.

Where suitable, helicopters and landing vessels may be used to reduce the number and/or specification, of the access tracks.

SHE Transmission are currently in the process of engaging a contractor to undertake access and constructability assessments to inform location specific access requirements.

3. CONSIDERATION OF ROUTE OPTIONS

3.1 Introduction

The previous Fort Augustus to Skye Project proposed a new H pole OHL between Fort Augustus and Broadford (with the existing steel lattice line remaining in place) and a replacement H pole OHL between Broadford and Dunvegan. In September 2016, SHE Transmission published the Fort Augustus to Skye Project Consultation Document[5]. A series of public exhibitions and stakeholder engagement followed to seek views on the preferred route put forward by SHE Transmission[6]. Subsequently, alignment studies were undertaken, and further consultation on the specific alignment for the new H pole OHL was carried out in 2018.

Whilst the project scope and infrastructure requirements have changed, much of the work undertaken for the previous project at the routeing stage in 2016 remains relevant and has been valuable in understanding the key constraints and opportunities associated with the Skye Reinforcement Project. The subsequent alignment studies which were the subject of consultation in 2018 were specific to the previous wood pole OHL requirements and are not relevant here.

Building on the previous work, the following tasks have been undertaken ahead of the preparation of this Consultation Document:

- Review of the previous route options to determine their suitability for the revised design of the Skye Reinforcement Project. This has included site visits by the project landscape architects and engineering team as well as a review of the Red Amber Green (RAG) ratings by the project team against the OHL routeing guidelines (see Appendix 2);
- Generation and analysis of 3D modelling software to gain a greater understanding of the terrain throughout the route. This will also be used to inform the detailed design of the new OHL;
- Internal environmental and engineering workshops; and
- Engagement meeting with statutory consultees to advise of the changes in project need, scope, and design and to seek views on the proposed approach.

It should be noted that the Stage 1: Corridor[7] assessment as set out in the SSEN's guidance[7] was not required as part of the review of the previous work and its relevance to this project. This stage of the project development was carried out as part of the system planning optioneering, summarised in Section 5 of the Skye Reinforcement Strategy, provided in Appendix 1.

3.2 Baseline Conditions

The important environmental features that form part of the existing baseline conditions were identified and discussed in the context of the need to take them into account when considering route options.

In addition to the previously identified baseline conditions, data collected from bird surveys and habitat surveys as part of the Fort Augustus to Skye Project was drawn upon where relevant to inform the route option appraisal.

The following parts of this report focus on the re-appraisal of the baseline conditions and the route options for each of the 'sections' that make up the OHL between the transmission network connection points of Fort Augustus and Ardmore. The approach to route selection was informed by SSEN's guidance[8] which provides a framework to ensure environmental, technical and economic considerations are identified and appraised at each stage of the routeing process. Further details are provided in Appendix 2.

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[5] At the time the proposed connection was to Edinbane Substation. The termination point subsequently changed to Dunvegan and further engagement with stakeholders undertaken to seek views on route options between Edinbane and Dunvegan.

[6] Public exhibitions for previous route consultation held between 20.9.16 and 28.9.16, and for the previous wood pole alignment between 7.11.17 and 15.11.17. Route Consultation Document published September 2016, Report on Consultation published June 2017. Previous Alignment Consultation Document published February 2018.

[7] A linear area which allows a continuous connection between the defined connection points within which the identification and assessment of route options can be completed. The corridor may vary in width along its length; in unconstrained areas it may be many kilometres wide.

[8] SSEN (March 2018), Procedures for Routeing Overhead Lines of 132kV and above

Due to the length of the new OHL, it has been necessary to split the broad corridor (see Figure 1) into sections to describe more easily, and identify and assess, route options. Section breaks are shown on Figures 2.0 to 2.6, and other figures as appropriate. Section lines should be considered as 'soft' rather than definitive lines, following topography and / or natural features. As such, some of the routes from one section may cross into another section to join other routes.

Seven sections have been identified as follows:

- Section 0 – Ardmore to Edinbane;
- Section 1 – Edinbane to Sligachan;
- Section 2 – Sligachan to Broadford;
- Section 3 – Broadford to Kyle Rhea;
- Section 4 – Kyle Rhea to Loch Quoich / Loch Cluanie;
- Section 5 – Loch Quoich / Loch Cluanie to Invergarry / Glen Moriston; and
- Section 6 – Invergarry / Glen Moriston to Fort Augustus.

This sectional approach is consistent with the sections identified in the previous Fort Augustus to Skye Project of the project, albeit Section 0 has now been extended to reflect that the termination point for the Skye Reinforcement Project is Ardmore.

4. SECTION 0 – ARDMORE TO EDINBANE

Introduction

Between Ardmore and Dunvegan, this section comprises routes running along the Waternish peninsula. Settlement on the peninsula is typically found to the west within the vicinity of the B886, and access is generally limited to the central and eastern parts of the peninsula. Routes then follow the A850 and a minor road to reach Dunvegan Substation. The area between Dunvegan and Edinbane is sparsely populated and is typically characterised by large areas of open moorland across gently sloping and undulating terrain. Access is limited to minor single track roads branching off the A863, with the main areas of settlement located at Upper Feorlig and Balmeanach.

Within this section, the existing 132 kV wood pole OHL would be replaced with a new trident H pole, as illustrated in Plate 2.2.

Route Options

Route options within this section comprise (see also Figure 2.0):

Ardmore to Dunvegan

- Route 0A (Existing Route) - Broadly following the route of the existing trident wood pole OHL, from Ardmore Substation to Dunvegan Substation. The route crosses to the north / eastern side of the B886 road and passes to the rear of crofts and properties on the Waternish peninsula. The route then follows the A850 and a minor road to reach Dunvegan Substation;
- Route 0B (Garradh Mòr) - Initially following the route of the existing wood pole OHL, from Ardmore crossing to the north east side of the B886 road and passing to the rear of crofts and properties at Upper Halstra. The route then crosses the peninsula towards Gillen and follows an elevated route within and along the edge of forestry, to the west of the small hills which form the spine of the Waternish peninsula. The route then crosses the A850 and open moorland to reach Dunvegan Substation; and
- Route 0C (Greshornish) – Following a similar route to Route OB to Gillen. It then follows a route around the north-western coastal edge of the Waternish peninsula to Greshornish, following the minor Greshornish road back to the A850. The route then crosses the A850 and open moorland to reach Dunvegan Substation.

Dunvegan to Edinbane

- Route 0D (Existing Route) – Following the route of the existing wood pole OHL from Edinbane Substation in a south easterly direction over open moorland toward St John's Chapel before heading east across moorland and through woodland towards Edinbane Substation; and
- Route 0E (Ben Aketil) – Following an easterly / south easterly route from Dunvegan Substation across open moorland, crossing Gleann Eoghainn before passing to the south of Ben Aketil and through woodland towards Edinbane Substation.

Route Options 0A to 0C (between Ardmore and Dunvegan) are new route options, which have not been subject of previous consultation.

Between Dunvegan and Edinbane, the route options remain as previously consulted, albeit the route references (i.e. 0A, 0B etc.) have changed given the extension of this section to Ardmore.

Photographs illustrating this section are provided in Plate 4.1.

Plate 4.1: Section 0 Photographs

Photo 0-1: Ardmore Substation

Photo 0-2: Dun Hallin Broch

Photo 0-3: Looking north-west from above Stein

Photo 0-4: Upper Feorlig

Environmental Considerations

The key environmental considerations in this section include (see also Appendix 4 and Figures 3.0 to 7.0):

- Potential impacts on the North West Skye SLA, landscape character and visual receptors such as properties, routes and tourist developments within the Waternish peninsula;
- Minimise potential impacts on sensitive habitats (including groundwater dependent terrestrial ecosystems), the water environment and avoidance of areas of deep peat where practicable;
- Minimising potential impacts on European Protected Species such as otter and bats, other protected species such as reptiles, and protected bird species such as hen harrier, corncrake and white tailed eagle;
- Minimising potential impacts on cultural heritage features and designated sites, particularly Trumpan Church, Dun Hallin Broch and Annait Scheduled Monuments;
- Avoidance of properties throughout the Waternish peninsula and at Upper Feorlig and Balmeanach;.
- Surface water drinking protection zone at Trumpan and Stein, and private water supply infrastructure;
- Effects on commercial forestry plantations; and

- Minimising impacts on the An Cleireach Site of Special Scientific Interest (SSSI), a geological SSSI featuring Tertiary igneous intrusions.

Technical Considerations

Between Dunvegan and Ardmore, constructability is generally good on the western extent of the Waternish peninsula, but less so along its central and eastern extents where terrain is more challenging, and slopes are steeper in places. Route Options 0A and 0E will require the least amount of temporary access tracks as these routes closely follow the existing public roads.

Construction access would need to be designed having proper regard to watercourses throughout this section, and, areas of deeper peat and rock would require identification. There is the potential for areas of wet and saturated ground in places.

Summary of Previous Consultation Responses

As outlined above, the section between Ardmore and Dunvegan has not previously been the subject of consultation as the termination point for the Skye Reinforcement Project extends to Ardmore Substation. In relation to the Fort Augustus to Skye Project, there were no specific responses from stakeholders following feedback sought on this section between Dunvegan and Edinbane, other than broad acknowledgement from some consultees that the preferred route / alignment from Dunvegan (Route 0D as it is now referred to) is unlikely to give rise to any significantly greater impacts than the existing OHL.

Route Option Appraisal

Three route options were considered between Ardmore and Dunvegan, comprising Route Options 0A to 0C which are routed from west to east. Route Options 0A to 0C pass through the North West Skye SLA over varying lengths, whilst Route Option 0C also passes through the Greshornish SLA. They also share the same 1 km (approximately) route from Ardmore Substation. Here, there are potential constraints associated with Trumpan Church, a Scheduled Monument, and proximity to properties within this area. There are numerous recorded cultural heritage assets within the area that would require consideration during future stages of the project to minimise potential impacts, regardless of the route option. There are no nature conservation designations crossed by any of the routes. Route Option 0C has the greatest potential to be constrained of the three routes from a landscape and visual perspective as it crosses through both the North West Skye and Greshornish SLA's, and areas that are considered sensitive to development of the type proposed, particularly given lack of access.

Between Dunvegan and Edinbane, neither of the routes (Route Options 0D and 0E) pass through sites designated for landscape interests and both routes would go through areas of landscape character broadly accommodating of this type of development. Neither route passes through any nature conservation sites designated as being of international importance. Both routes would pass through, or within the vicinity of, the An Cleireach SSSI. Although this is a nationally important designation, it is a geological SSSI featuring Tertiary igneous intrusions and it is anticipated that impacts can be managed. The most notable difference between the two routes is the proximity to settlement and existing infrastructure, with Route Option 0A being the closer of the two routes to such features.

From an engineering and economic perspective, the proximity of Route Options 0A (Ardmore to Dunvegan) and 0D (Dunvegan to Edinbane) to the existing OHL and road network offers better access opportunities during construction and maintenance of the OHL and is more economical as a result.

Preferred Route

The preferred route option put forward for this section is Route Option 0A and 0D combined as they provide better access and are least constrained from an environmental perspective. These routes would follow the same route as the existing 132 kV wood pole OHL, which would be removed following construction of the new OHL.

The preferred route between Dunvegan and Edinbane remains the same as the previous Fort Augustus to Skye Project, and the RAG ratings remain broadly consistent with those previously consulted upon.

5. SECTION 1 – EDINBANE TO SLIGACHAN

Introduction

This section comprises areas of open moorland and commercial forestry with coastal views to the west over Loch Harport. Settlement is found at Glenmore, Mugeary, Bracadale and Glen Drynoch. Access through this section comprises the A863 to the west, the A87 to the east, the B885 and minor single track roads.

Within this section, the existing 132 kV wood pole OHL would be replaced with a new single or double circuit 132 kV steel structure OHL.

Route Options

This section comprises three route options:

- Route 1A (Existing) – Following the route of the existing wood pole OHL through Glenmore with options to the west and east of Glen Varragill Forest;
- Route 1B (A863 Bracadale) – Following the A863, but moving inland around Bracadale to avoid the populated areas and coastal views at this point before returning to run parallel to the coast road; and
- Route 1C (Tungadal) – Crosses Glen Bracadale and passes to the west of Glen Tungadal Forest. It crosses higher ground than Route 1B, skirts the south face of Roineval and then heads east towards the A87. The route then re-joins Route 1A.

Route Options 1A and 1B remain broadly consistent with the route options in this section previously consulted upon. Route Option 1C is a new route option that has not been consulted upon previously.

Photographs illustrating this section are provided in Plate 5.1.

Environmental Considerations

The key environmental considerations in this section include (see also Appendix 4 and Figures 3.1 to 7.1):

- The Cuillins SPA / SSSI and minimising potential impacts on golden eagle (a qualifying feature of the SPA);
- The Sligachan Peatlands SAC / SSSI, qualifying features of which comprise blanket bog, dystrophic and oligotrophic lochs, vascular plants, transition mires and quaking bogs;
- The Cullin Hills NSA and Cuillins WLA on approach to Sligachan;
- Minimising potential impacts on European Protected Species such as otter and bats, other protected species such as reptiles, and protected bird species such as hen harrier, red throated diver, greenshank and white tailed eagle;
- Minimise potential impacts on sensitive habitats (including blanket bog and groundwater dependent terrestrial ecosystems), the water environment and avoidance of areas of deep peat where practicable;
- Minimising potential impacts on properties and other visual receptors;
- Minimising potential impacts on cultural heritage features and designated sites, particularly around Bracadale; and
- Minimising effects on commercial forestry.

Plate 5.1: Section 1 Photographs

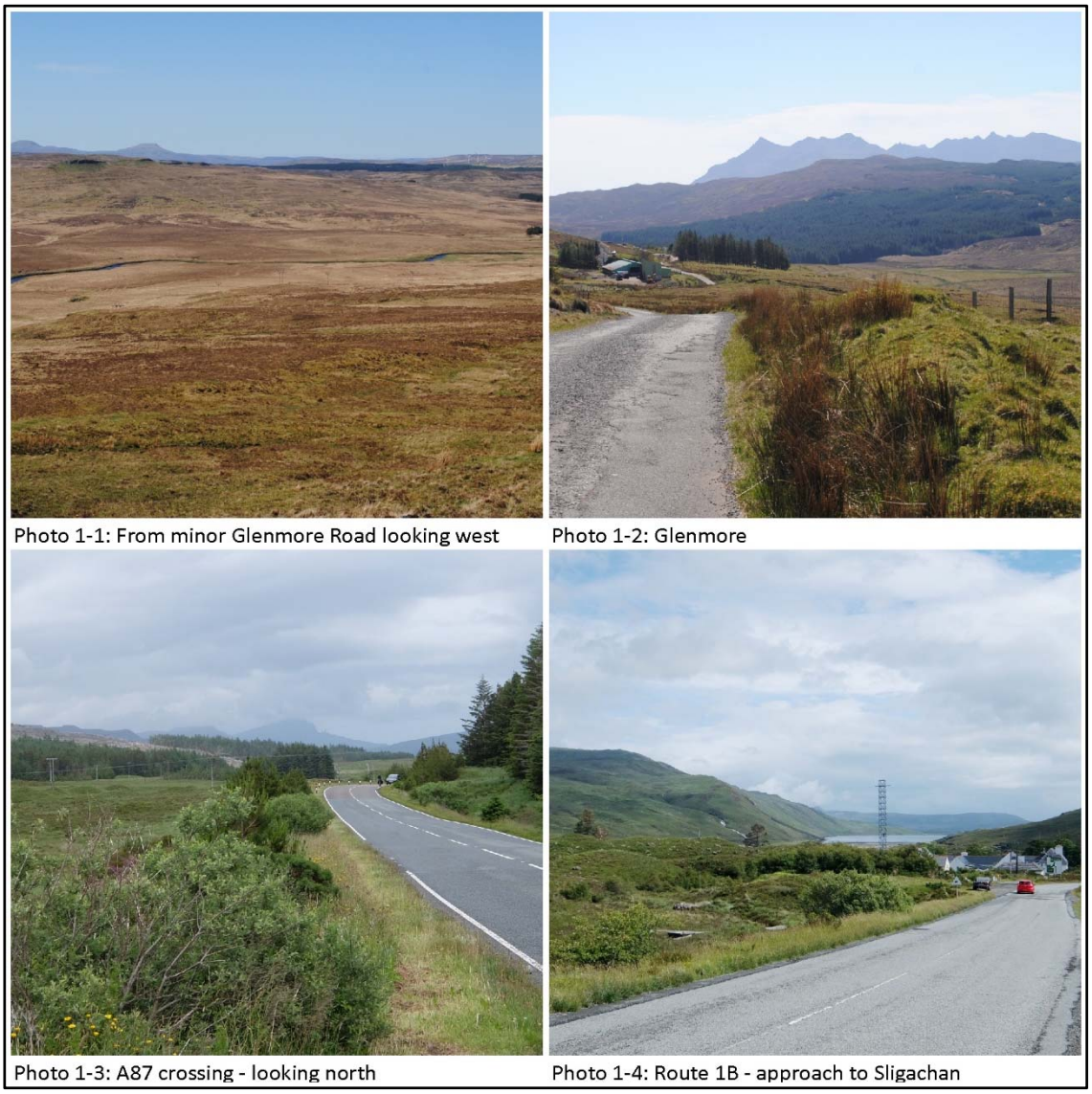

Photo 1-1: From minor Glenmore Road looking west

Photo 1-2: Glenmore

Photo 1-3: A87 crossing - looking north

Photo 1-4: Route 1B - approach to Sligachan

Technical Considerations

Route Option 1B offers better access opportunities during construction given the proximity to the A863, thereby reducing the technical challenges and increased cost of accessing the more remote areas of Route Options 1A and 1C and also, reducing potential environmental constraints. In that regard, there is likely to be greater potential for areas of deeper peat for Route Options 1A and 1C. For all options, the presence of other lower voltage distribution electrical infrastructure and telecoms infrastructure may require temporary or permanent diversions.

Construction access would need to take account of potential impacts on watercourses throughout this section, and areas of deeper peat and rock would require identification. There is also potential for impacts on for areas of wet and saturated ground in places, for example at Glenmore and at the head of Loch Sligichan.

Summary of Previous Consultation Responses

In relation to the Fort Augustus to Skye Project, Scottish Natural Heritage (SNH) and Historic Environment Scotland (HES) noted support for Route Option 1A over Route Option 1B in their previous consultation feedback. Scottish Forestry noted that potential effects on forestry should be minimised. There were no other specific comments from stakeholders directly relevant to this section, with general support for the preferred route put forward.

Route Options Appraisal

Whilst Route Option 1B offered better access opportunities during construction given the proximity to the A863, thereby reducing the technical challenges and increased cost of accessing the more remote areas of Route Options 1A and 1C, the route options appraisal noted a number of environmental constraints along this route.

Route Option 1B could result in potential impacts on the North West Skye Special Landscape Area (SLA), and may be visible from areas such as Bracadale and Drynoch. Furthermore, Route Option 1B would introduce a new feature through approximately 8 km of the Cuillins SPA, whilst also passing through the Sligachan Peatlands SAC / SSSI with the potential for damage to designated habitats including blanket bog. Route Option 1B also had the potential for effects on the setting of a cluster of Scheduled Monuments (SM) and Listed Buildings (LB) around Bracadale Bay, in particular the iconic broch of Dun Beag.

It is considered that Route Option 1A would have fewer potential impacts on the Cuillins SPA / SSSI by passing through a shorter section of the designated site, whilst also following the route of the existing OHL, thereby presenting a lower risk to golden eagles. Similarly, direct and indirect impacts on the Sligachan Peatlands SAC / SSSI should be avoided. Route Option 1A could however cross areas of deeper peat and sensitive habitats, whilst the potential for visual effects from properties at Glenmore and Mugeary exists, subject to further review at alignment stage.

Route Option 1C would introduce a new feature through the Cullins SPA / SSSI in an area of higher altitude that is known to be used by golden eagle and other protected bird species. This higher ground could result in the OHL being skylined with potential for landscape and visual impacts from the west.

Preferred Route

The preferred route option for this section is Route Option 1A. Whilst Route Option 1B offered better access opportunities during construction given the proximity to the A863, the environmental sensitivities relating to Routes 1A and 1C are considered to outweigh these issues for this section as the technical challenges for Route Option 1A (access) could be overcome by the implementation of appropriate and sensitively designed access solutions.

The preferred route between Edinbane and Sligachan remains the same as the previous Fort Augustus to Skye Project. The RAG ratings of the preferred route remain broadly consistent, albeit the requirement for a new single or double circuit 132 kV steel structure OHL increases the potential for visual impacts from properties at Glenmore and Mugeary, and the approach to Sligachan. Further consideration of the design solution would be required at the alignment stage to minimise potential impacts as far as practicable.

6. SECTION 2 – SLIGACHAN TO BROADFORD

Introduction

This section transitions from the open moorland and relatively gently sloping nature of the landscape found generally in Sections 0 and 1, into the mountainous and steep hillsides of the Cuillin Hills, before flattening out again upon reaching Broadford. The A87 skirts the Cuillin Hills and settlement is scattered along this route, except where concentrated at Sconser, Luib, Dunan, Strollamus and Broadford. On the northern side of Loch Sligachan, settlement is concentrated at Peinachorrain and along the B883 which provides access from the north. This is a sensitive section in both landscape and natural heritage terms, as recognised through national and international designations of environmental importance. It is also technically challenging with topographical constraints and technical restrictions given the presence of existing overhead lines.

Within this section, the existing 132 kV wood pole OHL would be replaced with a new 132 kV single or double circuit OHL supported by steel structures.

Route Options

This section comprises two route options:

- Route 2A (Existing) – following the route of the existing 132 kV wood pole OHL, skirting the edge of the Cuillins; and
- Route 2B (The Braes) - initially crossing moorland to the north of Ben Lee before heading south to Peinachorrain and involving an overhead line crossing of Loch Sligachan before re-joining Route 2A.

Route Option 2A remains broadly consistent with this route option previously consulted upon. The route has widened at Gleann Torra-mhichaig to enable consideration of a route the east of Gleann Torra-mhichaig prior to reaching Loch Ainort.

Route Option 2B to the north of Loch Sligachan also remains broadly consistent with the route option previously consulted upon. However, instead of a subsea crossing of Loch Sligachan as was previously consulted upon, the proposed solution for this option would include an OHL span of this crossing within the vicinity of Sconser and Peinachorrain, thus providing a more cost effective option that is more easily maintained. The route has been broadened in this area to facilitate the consideration of potential options. Following this crossing, the route had previously taken a south easterly direction towards Loch Ainort whereby a subsea crossing of the loch was considered. This is no longer being considered at this stage given the change in system planning requirements and the route therefore re-joins Route 2A at Sconser.

Photographs illustrating this section are provided in Plate 6.1.

Environmental Considerations

The key environmental considerations in this section include (see also Appendix 4 and Figures 3.2 to 7.2):

- Minimising potential landscape and visual impacts, particularly in relation to the Cuillin Hills NSA, the Cuillins WLA and other sensitive receptors e.g. at Sligachan, Peinachorrain, Sconser and along the A87;
- The Cuillins SPA / SSSI and minimising potential impacts on golden eagle (a qualifying feature of the SPA);
- Minimise potential impacts on sensitive habitats (including groundwater dependent terrestrial ecosystems), the water environment and avoidance of areas of deep peat where practicable;
- Minimising potential impacts on European Protected Species such as otter and bats, protected species such as badger, pine marten, red squirrel and reptiles, and protected bird species such as greenshank, merlin, white tailed eagle, waders, waterfowl and gulls;
- Minimising potential impacts on properties, visual receptors and recreational interests; and
- Minimising impacts on commercial woodland at Broadford.

Plate 6.1: Section 2 Photographs

Photo 2-1: Looking down Loch Sligachan from Loch Sigachan Caravan Site

Photo 2-2: Mouth of Loch Sligachan between Peinachorrain and Sconser

Photo 2-3: A87, south of Loch Sligachan

Photo 2-4: At the head of Loch Ainort

Technical Considerations

Route Option 2A has good access opportunities given the proximity of the A87. There are some areas with steep gradients and slopes, and the proximity to the existing 132 kV wood pole OHL and other low voltage distribution infrastructure could present technical challenges during construction in constrained sections. For Route Option 2B, there are limited opportunities to use existing access tracks to the west of The Braes, which has areas of steep slope and potential for areas of deep peat.

Summary of Previous Consultation Responses

During the previous consultations in relation to the Fort Augustus to Skye Project, there was general recognition from stakeholders that this section passes through land which carries significant environmental designations and planning policy provisions which require decisions in respect of the finalised route and alignment to be carefully considered and attention given to the management of potential constraints. Specifically, concerns were raised by SNH with regard to Route Option 2A around the base of the Cuillin Hills and the potential effects on the special qualities of the NSA. For that reason, a preference for Route Option 2B was stated by SNH, subject to further environmental and engineering analysis. Mountaineering Scotland stated no strong preference for Section 2 providing temporary tracks are used for construction purposes. The Highland Council noted that elected members were generally supportive of the routes that were consistent with existing infrastructure, although no specific mention of this section was made in its consultation response.

Route Options Appraisal

The majority of Route Option 2A follows the A87 and skirts the edge of the Cuillin Hills NSA and Cuillins WLA. This is a sensitive and dramatic landscape, although views of the existing wood pole 132 kV OHL and lower voltage distribution infrastructure are common when travelling through this landscape along the A87. However, the larger replacement steel structures would make the new OHL a more prominent feature which could reduce the perceived wild land values of the WLA and could adversely affect the special qualities of the NSA. The route would also pass through the Cuillins SPA for approximately 18.5 km, for which golden eagle is a qualifying feature. However, it is considered that a new OHL within this route and replacing the existing OHL would present a low potential risk to golden eagles as they will already be less likely to utilise this area, due to their avoidance of areas of human disturbance and preference for ridge lines and higher altitudinal levels of terrain features.

Route Option 2B would also result in the potential for adverse landscape and visual impacts, particularly at the new OHL crossing of Loch Sligachan at Peinachorrain and Sconser, because of the potential to cause intrusion and a barrier to the coastal views toward Raasay, and within other valued coastal and mountain views. In isolation, the route would avoid the Cuillins SPA, but as it would re-join Route Option 2A at Sconser, impacts on the SPA would be as per Route Option 2A, albeit for a shorter length. The route over higher ground to the north of Loch Sligachan, and the crossing of the loch, could present a potential constraint for a number of protected bird species including red-throated diver, white-tailed eagle and other water birds. Route Option 2B would result in the removal of the existing 132 kV OHL between Sligachan and Sconser.

There is the potential for deep peat to the west of The Braes, the depth of which would need to be identified during further survey work.

On environmental grounds, both options present and share a number of similar constraints, particularly from a landscape and visual perspective. However, from a technical and economic perspective the appraisal firmly suggested a preference for Route Option 2A.

Preferred Route

Route Option 2A (Existing) is put forward as the preferred option for this section at this stage. However, 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.

The preferred route between Sligachan and Broadford remains the same as the previous Fort Augustus to Skye Project. RAG ratings for both routes have increased with respect to landscape and visual considerations due to the requirement for a new single or double circuit 132 kV steel structure OHL.

7. SECTION 3 – BROADFORD TO KYLE RHEA

Introduction

This section initially traverses a relatively flat area of open moorland and commercial forestry plantation to the south of the populated A87 corridor, comprising the towns of Broadford, Harrapool, Skulamus and Breakish. Where the section enters Glen Arroch and the Kinloch and Kyleakin Hills SAC / SSSI the terrain turns mountainous with areas of steep gradient before reaching the existing OHL steel lattice towers supporting the OHL crossing at Kylerhea.

Within this section, the existing 132 kV single circuit steel lattice OHL would be replaced with a new double circuit 132 kV OHL supported by steel structures.

Route Options

This section comprises five route options:

- Route Option 3A - follows the route of the existing steel lattice overhead line, traversing the headland at Loch Alsh to the east of Kyleakin and through the Kinloch and Kyleakin Hills SAC;
- Route Option 3B - initially follows the existing steel lattice overhead line before then following the minor road through Glen Arroch to Kyle Rhea;
- Route Option 3C - a variation to Route Option 3A which largely follows the A87 from Breakish to Kyleakin before re-joining Route Option 3A to the south of Kyleakin;
- Route Option 3D - This option would comprise an alternative route to the eastern extent of Route Option 3A which bisects the Kinloch and Kyleakin Hills SAC and SSSI, from a point close to the existing steel lattice OHL at Kyleakin to the crossing point at Kylerhea, passing through Bealach nam Mulachag; and
- Route Option 3E - This option would comprise an alternative route to the eastern extent of Route Option 3B which would avoid the settled area around Kyle Rhea by rising over the shoulder of Beinn Bhuidhe via Coire na Coinnich and descending via Coire Buidhe to the existing crossing point at Kyle Rhea.

Route Options 3A to 3D remain broadly as previously consulted upon, with minor amendments to Route Options 3A and 3C. Route Option 3E is a new route option that has not been consulted upon previously.

Photographs illustrating this section are provided in Plate 7.1.

Environmental Considerations

The key environmental considerations in this section include (see also Appendix 4 and Figures 3.3 to 7.3):

- Minimising potential impacts on the Kinloch and Kyleakin Hills SAC / SSSI. Qualifying features of the SAC include alpine and sub alpine heaths, blanket bog, dry and wet heaths, mixed woodland on base rich soils associated with rocky slopes, western acidic oak woodland and otter. Kinloch and Kyleakin Hills SSSI is further designated for its bryophyte assemblage and lichen assemblage qualifying features;
- Minimising potential impacts on the qualifying features of the Mointeach nan Lochain Dubha SAC / SSSI, including blanket bog, and indirect impacts on the Lochs Duich, Long and Alsh reefs SAC, a marine protected area for Burrowed mud and Flame shell beds;
- Minimise potential impacts on other sensitive habitats (including groundwater dependent terrestrial ecosystems), the water environment and avoidance of areas of deep peat where practicable;
- Minimising potential impacts on otter, a qualifying feature of the Kinloch and Kyleakin Hills SAC, other European Protected Species including bats, other protected species such as badger, pine marten, red squirrel, water vole and reptiles, and protected bird species such as golden eagle and white tailed eagle;

- Minimising potential landscape and visual impacts;
- Minimising impacts on the Loch Ashaig SSSI (geological) / GCR, Bealach Udal SSSI and Kylerhea Glen GCR;
- Minimising impacts on residents and tourists within the vicinity of Broadford, Harrapool, Skulamus, Breakish, Glen Arroch and Kylerhea; and
- Minimising impacts on commercial forestry and woodland.

Plate 7.1: Section 3 Photographs

Photo 3-1: From A851 looking towards Broadford

Photo 3-2: Looking down Kylerhea Glen

Photo 3-3: Route 3A, east of Kyleakin

Photo 3-4: Looking west across Kyle Rhea from Glenelg

Technical Considerations

From Broadford Substation to the minor road to Glen Arroch, route options run within the vicinity of the existing steel lattice 132 kV OHL across generally clear, open and undulating terrain. For Route Options 3A (eastern extent), 3D and 3E through the SAC, all will include challenging construction terrain, typically faced with severe side slope and inline gradients. Better access opportunities exist for Route Option 3B through Glen Arroch.

Summary of Previous Consultation Responses

There were a number of comments received from stakeholders during consultation on the Fort Augustus to Skye Project specifically relating to this section, with contrasting views on the options put forward. Concerns were raised with regard to the potential impact of both Route Options 3A and 3B (but in particular Route Option 3A), on the qualifying features of the Kinloch and Kyleakin Hills SAC / SSSI, whilst other concerns were raised

regarding the potential landscape, visual and recreational impacts of Route Option 3B on Glen Arroch and Kylerhea Glen including views from the Bealach Udal and Glenelg. Concerns were also raised in relation to potential collision risk to golden and white-tailed eagles, tawny, barn and long-eared owls resulting from Route Option 3B, (Route Option 3A being cited as a preference as birds may have already habituated to it).

In light of consultation responses, further environmental work was focussed within this section during 2017 and 2018, including detailed consideration of landscape and visual sensitivities, and targeted bird surveys. Furthermore, an additional route was identified and appraised, Route Option 3D which bisected the Kinloch and Kyleakin Hills SAC / SSSI.

Further engineering studies in relation to the Fort Augustus to Skye Project were also undertaken to review the technical challenges of route options within this section, including a helicopter fly-through which identified a possible alignment higher up the hill side within Route Option 3A.

The preferred route option initially put forward for this section was Route Option 3B. However, following the identification of an alignment further up the hill side within Route Option 3A this provided an opportunity to minimise potential impacts on the woodland qualifying features of the SAC. Subject to further habitat surveys and engineering analysis, it was felt there may be an opportunity to route the OHL within Route Option 3A thus minimising the potential constraints raised by stakeholders in relation to Route Option 3B. This was put forward in the Consultation Document - Alignment (2018). However, subsequent habitat surveys and consultation with SNH enabled a clear steer to be provided from SNH which underlined concerns on site integrity if Route Option 3A were progressed.

Route Option Appraisal

Route Options 3A, 3B, 3D and 3E require to cross the Kinloch and Kyleakin Hills SAC / SSSI to varying degrees. Route Option 3A would potentially pass through both woodland and open ground habitats and impact upon qualifying features of the SAC / SSSI, particularly given existing access limitations. Route Option 3A could also result in impacts on landscape character. Route Option 3B would avoid the woodland qualifying habitat of the SAC but would still cross other qualifying habitats and could also result in potential landscape and visual impacts to and from Glen Arroch. Route Option 3C provides an alternative to the western extent of Route Option 3A only.

Route Options 3D and 3E would bisect the SAC / SSSI through an area without any infrastructure or access at present. These options could result in impacts on habitats (including qualifying features of the SAC / SSSI) and landscape character, as well as breeding golden eagles.

From a technical perspective, Route Options 3A (eastern extent), 3D and 3E present technical challenges due to the lack of existing access opportunities and areas of steep slope and ravines. In contrast, the presence of the minor road through Glen Arroch provides good access opportunities for Route Option 3B.

Preferred Route

On balance, due to a combination of the technical and environmental challenges associated with Route Option 3A (eastern extent), 3D and 3E and lack of any added benefits resulting from Route Option 3C as it would still require routeing through the SAC, Route Option 3A (western extent) and 3B are put forward as the preferred option in this section. 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.

The RAG ratings within this section remain broadly consistent with the Fort Augustus to Skye Project, reflecting the sensitive nature of this section.

8. SECTION 4 – KYLE RHEA TO LOCH QUOICH / LOCH CLUANIE

Introduction

Due to the mountainous topography and coastal location, this section comprises two almost distinct routes between Skye and the mainland. The first originates at a crossing of Kylerhea and heads in a north west to south easterly direction to Loch Quoich dam through mountainous terrain. The existing 132 kV steel lattice OHL runs through this section and access is restricted to a small number of existing single-track minor roads at Glenelg and Kinlochhourn, with the area between Balvraid and Kinlochhourn having no public road access. The second route within this section follows the A87 to the north of Loch Alsh and through Glen Shiel toward Loch Cluanie. This is more accessible, but the mountainous terrain is noticeable throughout, and Loch Alsh is present to the south. A link between the two routes is possible only at Glen More and via Mam Rattagan to Shiel Bridge.

Within this section, the existing 132 kV single circuit steel lattice OHL would be replaced with a new double circuit 132 kV OHL supported by steel structures.

Route Options

This section comprises three route options:

- Route 4A – following the route of the existing steel lattice OHL from Kyle Rhea to Quoich Dam;
- Route 4B – following a route through Glen More towards Shiel Bridge and the A87 through Glen Shiel; and
- Route 4C – crossing the Skye Bridge and following the north coast of Loch Alsh.

All three route options remain consistent with those previously consulted upon.

Photographs illustrating this section are provided in Plate 8.1.

Environmental Considerations

The key environmental considerations in this section include (see also Appendix 4 and Figures 3.4 to 7.4):

- Minimising potential landscape and visual impacts, particularly in relation to Knoydart NSA, Kinlochhourn, Knoydart and Morar WLA, Central Highlands WLA and Moidart, Morar and Glen Shiel SLA;
- Potential impacts on cultural heritage sites of national importance, including Scheduled Monuments and the Glen Shiel Battlefield site;
- Minimising potential impacts on European Protected Species such as otter and bats, other protected species such as badger, pine marten, water vole, red squirrel and reptiles, and protected bird species such as golden eagle, red-throated diver, black-throated diver and common scoter;
- Minimise potential impacts on sensitive habitats (including groundwater dependent terrestrial ecosystems), the water environment and avoidance of areas of deep peat where practicable;
- Minimising potential impacts on Druim loasal SSSI (geological) and GCR, the Ard Hill and Avernish SSSI / GCR, Kinloch Hourn GCR and Quoich spillway SSSI (geological);
- Potential impacts on woodland and commercial forestry; and
- Recreational interests, including core paths and long-distance walking routes.

Plate 8.1: Section 4 Photographs

Photo 4-1: Glen More

Photo 4-2: Route 4A - Gleann Aoidhdailean

Photo 4-3: Route 4A - looking north-west to Gleann Dubh Lochain

Photo 4-4: Kinloch Hourn

Photo 4-5: Looking west alongside Loch Cuaich

Photo 4-6: Glen Shiel

Technical Considerations

Route Option 4A is routed through a remote and rugged landscape. A thorough review of potential access solutions would be required for the section between Kinlochourn and Gleann Beag. Route Options 4B and 4C have generally better access opportunities given proximity to the A87, subject to an appropriate Traffic Management Plan. However, the steepness of slope to cross over Mam Ratagan (if connecting to Kylerhea crossing) and also the steeper sections of Glen Shiel would present a technical challenge and potential for extensive forestry removal.

Summary of Previous Consultation Responses

Contrasting views from stakeholders emerged regarding route options within this section in relation to the Fort Augustus to Skye Project. Concerns were expressed in relation to potential impacts of Route Option 4A on landscape and wildness and in particular the Kinlochourn – Knoydart – Morar WLA and Knoydart NSA. As a result, Mountaineering Scotland suggested an additional route along the north coast of Loch Alsh (now Route Option 4C)[9]. In contrast, elected members of The Highland Council were supportive of routes consistent with existing infrastructure and stated the need to avoid a route through Glen More – Glen Shiel – Loch Cluanie. Concerns were expressed by HES in relation to the potential direct and indirect impacts of Route Option 4B on the Glen Shiel Battlefield.

Route Option Appraisal

Route Option 4A passes through a very remote, rugged landscape with steep complex topography and high scenic qualities. This is reflected in large parts of this area being designated for landscape, namely Knoydart NSA, Kinlochhourn, Knoydart and Morar WLA, and Moidart, Morar and Glen Shiel SLA.

Route Option 4B would be routed through Glen More and Glen Shiel. The area of greatest constraint would be Glen Shiel, which contains the A87 and is the main tourist route to Skye with high visitor numbers each year. Glen Shiel is recognised as an important landscape through landscape designations such as Kintail NSA and Moidart, Morar and Glen Shiel SLA, as well as running between two Wild Land Areas; Central Highlands WLA and Kinlochhourn – Knoydart – Morar WLA. There is also potential for direct and indirect impacts on the Glen Shiel battlefield site and SM. The historic importance of the battlefield site is also noted to contribute to the special qualities of the NSA.

Route Option 4C could result in adverse landscape and visual impacts, given sensitive landscape and proximity to properties, settlements and the A87. Potential constraints associated with cultural heritage and recreational interests are also evident. Steep slopes and terrain would also present technical challenges meaning the only viable route would be close to the loch shore and A87. Landscape and cultural heritage issues in relation to Route Option 4B through Glen Shiel would remain if this route were taken forward given absence of any other viable alternative.

Preferred Route

Section 4 comprises a particularly challenging section from both an engineering and environmental perspective. It was determined that the presence of the A87 tourist route, the landscape and visual sensitivities of the highly valued and travelled Glen Shiel, in addition to the cultural heritage issues in relation to the Glen Shiel battleground for Route Option 4B provided greatest constraint overall. Therefore, on balance Route Option 4A is put forward as the preferred route in this section.

The preferred route in this section remains the same as the previous Fort Augustus to Skye Project. The RAG ratings within this section remain broadly consistent, reflecting its sensitive nature.

[9] Included in the Fort Augustus to Skye Alignment Consultation Document (February 2018)

9. SECTION 5 – LOCH CUAICH / LOCH CLUANIE TO INVERGARRY / GLEN MORISTON

Introduction

This section includes routes through Loch Cluanie and Glen Moriston, with options bordering Loch Loyne, as well as through Glen Garry. Settlement is sporadic for the most part, typically found along the A87 west of Invergarry, the A887 through Glen Moriston and the minor road to Kinlochhourn. The 132 kV steel lattice OHL, other electricity distribution and telecom infrastructure are often seen when travelling along the minor road to Kinlochhourn, and at points crossing over the A87. Large areas of forestry plantation are common throughout this section.

Within this section, the existing 132 kV OHL supported on steel lattice towers and trident H poles would be replaced with a new double circuit 132 kV OHL supported on steel structures.

Route Options

This section comprises six route options:

- Route 5A - follows the route of the existing steel lattice OHL from Quoich Dam to Invergarry;
- Route 5B - largely routed through forestry plantation in Glen Garry, to the south of Loch Garry;
- Route 5C - follows a route along Loch Cluanie and Glen Moriston;
- Route 5D - provides a connection between Glen Shiel and Glen Garry route options;
- Route 5E - provides a connection between the Glen Moriston and Glen Garry route options, following the shore of Loch Loyne; and
- Route 5F - crosses the A87 below Mullach Coire Ardachaidh and hugs the northern edges of the forestry plantations which border Glen Garry, before re-joining the existing OHL route.

All routes remain consistent with those previously consulted upon.

Photographs illustrating this section are provided in Plate 9.1.

Environmental Considerations

The key environmental considerations in this section include (see also Appendix 4 and Figures 3.5 to 7.5):

- Minimise potential impacts on black throated diver and common scoter, qualifying features of the West Inverness-shire Lochs SPA / SSSI;
- Minimising potential impacts on the Quoich Spillway SSSI (Geological) and Garry Falls SSSI, notified features of which include upland mixed ash woodland and bryophyte assemblage;
- Minimise potential landscape and visual impacts on sensitive receptors;
- Minimise potential impacts on sensitive habitats (including groundwater dependent terrestrial ecosystems), the water environment and avoidance of areas of deep peat where practicable;
- Minimise potential indirect impacts on qualifying features of the River Moriston SAC including Atlantic salmon and freshwater pearl mussel;
- Minimising potential impacts on European Protected Species such as otter and bats, other protected species such as badger, pine marten, red squirrel, water vole and reptiles, and protected bird species such as black-throated diver, common scoter, black grouse, greenshank and osprey; and
- Minimising potential impacts on woodland and commercial forestry.

Plate 9.1: Section 5 Photographs

Photo 5-1: Route 5A - near Poulary

Photo 5-2: Looking south-east across Loch Poulary

Photo 5-3: Route 5C - Alongside Loch Cluanie

Photo 5-4: Loch Loyne from A87 viewpoint

Photo 5-5: A87 above Loch Garry - looking east

Photo 5-6: Glen Moriston

Technical Considerations

From a technical perspective, Route Options 5A, 5B and 5C have good existing access opportunities, with varying degrees of upgrade requirements to the local road network or existing forest tracks. Route Options 5D

and 5E would need to make greater use of temporary access solutions. Route Option 5B would result in the greatest extent of forestry removal. All routes would require a robust traffic management plan.

Summary of Previous Consultation Responses

In relation to the Fort Augustus to Skye Project, concerns were raised about the potential impacts of all options to qualifying bird interests of the West Inverness-shire Lochs SPA. No major concerns were raised by statutory or non-statutory consultees with any route on landscape grounds, although some concerns were raised from members of the public relating to potential landscape and visual impacts in Glen Garry. Scottish Forestry highlighted a concern over potentially significant forestry removal and suggested the consideration of an alternative route (Route 5F). This was previously appraised[10], but did not change the preferred route at that time.

Route Options Appraisal

All routes through this section are within the vicinity of the West Inverness-shire Lochs SPA / SSSI and surveys have been carried out to inform the assessment of potential impacts on the qualifying species of this SPA. In this respect, it is considered that following the existing steel lattice overhead line would avoid any 'novel' impacts on SPA species, in contrast to routes in areas where there is currently no electricity infrastructure. From a landscape and visual perspective, Route Option 5A is preferred as it follows a transition in landscape character between broad forested strath and rocky moorland, which is broadly accommodating of this type of development, and follows an existing wayleave which is generally well-placed.

From a technical perspective, Route Options 5A, 5B and 5C have good existing access opportunities, with varying degrees of upgrade requirements to the local road network or to existing forest tracks. Route Options 5D and 5E would need to make greater use of temporary access solutions. Route Option 5B would result in the greatest extent of forestry removal. All routes would require a robust traffic management plan.

Preferred Route

The preferred option for Section 5 is Route Option 5A (Existing).

The preferred route in this section remains the same as the previous Fort Augustus to Skye Project. The RAG ratings also remain broadly consistent.

[10] Included in the Fort Augustus to Skye Alignment Consultation Document (February 2018)

10. SECTION 6 – INVERGARRY / GLEN MORISTON TO FORT AUGUSTUS

Introduction

This section includes route options across moorland and through commercial forestry between Invergarry and Auchterawe, whilst also including an option to the south of Glen Moriston which would approach Auchterawe through commercial forestry and an existing wayleave to the north west. Existing electricity infrastructure through this area includes the 132 kV steel lattice OHL between Fort William and Fort Augustus Substation, and the Skye Tee 132 kV wood pole OHL between the Skye Tee (Invergarry) and Fort Augustus Substation. The Beauly to Denny 400 kV OHL also connects into Fort Augustus Substation.

Within this section, the existing 132 kV wood pole OHL (Skye Tee) would be replaced with a new double circuit 132 kV OHL supported by steel structures.

Route Options

This section comprises four route options:

- Route 6A - follows the route of the existing steel lattice OHL from Invergarry to Fort Augustus Substation, through Auchterawe;
- Route 6B - from Glen Moriston, this route follows the Beauly – Denny wayleave corridor to Fort Augustus Substation;
- Route 6C - follows the route of the Fort Augustus – Skye Tee wood pole OHL which forms an alternative to Route Option 6A from the western extent of Inchnacardoch Forest to Fort Augustus Substation; and
- Route Option 6D - forms an alternative to Route Option 6A from the western extent of Inchnacardoch Forest to Fort Augustus Substation, crossing the Caledonian Canal to avoid the Auchterawe area.

All routes remain consistent with those previously consulted upon.

Photographs illustrating this section are provided in Plate 10.1.

Environmental Considerations

The key environmental considerations in this section include (see also Appendix 4 and Figures 3.6 to 7.6):

- Minimise potential impacts on black throated diver and common scoter, qualifying features of the West Inverness-shire Lochs SPA;
- Minimise potential landscape and visual impacts on sensitive receptors, e.g. residents in Auchterawe, where possible;
- Minimise potential impacts on sensitive habitats (including groundwater dependent terrestrial ecosystems), the water environment and avoidance of areas of deep peat where practicable;
- Minimise potential impacts on European Protected Species such as otter and bats, other protected species such as water vole, red squirrel, badger, pine marten and reptiles, and protected bird species such as black-throated diver and black grouse;
- Potential impacts on commercial woodland and the use of existing forestry tracks; and
- Minimising potential impacts on the Caledonian Canal and Torr Dhuinn Fort Scheduled Monuments.

Plate 10.1: Section 6 Photographs

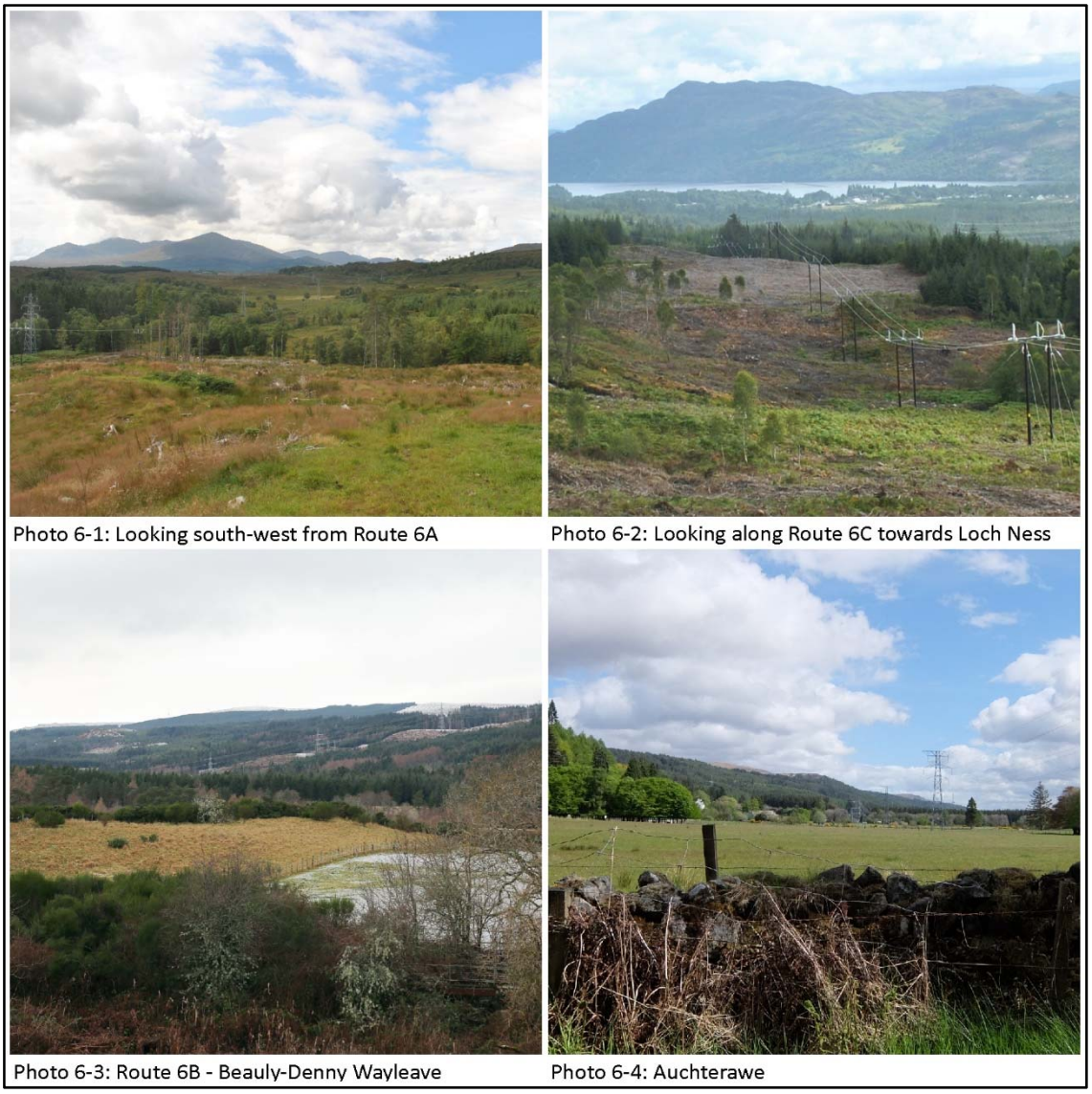

Photo 6-1: Looking south-west from Route 6A

Photo 6-2: Looking along Route 6C towards Loch Ness

Photo 6-3: Route 6B - Beauly-Denny Wayleave

Photo 6-4: Auchterawe

Technical Considerations

Constructability within this section appears good with no moderate or severe side slopes identified. For all options, the presence of other lower voltage distribution electrical infrastructure and telecoms infrastructure may require temporary or permanent diversions.

Summary of Previous Stakeholder Responses

In relation to the Fort Augustus to Skye Project, the preferred route put forward was Route Option 6A and 6C. Some comments were received from stakeholders specifically related to this section. These included comments from HES, who stated a preference for the preferred route (Route Option 6A / 6C) and expressed concerns if Route Option 6D were progressed with regards to impacts on the Caledonian Canal. Comments were also received from residents at Auchterawe who expressed preference for the preferred route through this section. Discussions with Scottish Forestry had been on-going to establish a route and alignment that minimises potential impacts on felling and forestry operations.

Route Options Appraisal

Route Option 6A has the potential for constraint with respect to visual amenity and landscape character principally in the Auchterawe area. However, when the western section of Route Option 6A was combined with Route Option 6C, which avoids Auchterawe (referred to as Route 6A / 6C) these effects would be reduced, although the potential for cumulative effects would require further consideration. Route Option 6A does border

the SPA. Previous survey work has not identified potential for risk to qualifying species of the West Inverness-shire Lochs SPA / SSSI in terms of flight activity to the east of Loch Lundie, although disturbance during construction would need to be considered. Route Options 6C and 6D would both require the southern extent of Route Option 6A. Route Option 6D, crosses the Caledonian Canal and would potentially result in impacts to this Scheduled Monument, and views and recreational enjoyment of this area. An alternative would be to use the Beauly – Denny wayleave corridor from Glen Moriston (Route Option 4B), but there is potential for cumulative impacts in widening this wayleave corridor further, and an increase in wirescape effects at Glen Moriston and Auchterawe.

From a technical perspective, most options present good access opportunities, whilst all would require some removal of forestry to accommodate a new or widened wayleave.

Preferred Route

On balance, it was considered that the western section of Route Option 6A combined with Route Option 6C was preferred though this section.

The preferred route in this section remains the same as the previous Fort Augustus to Skye Project. The RAG ratings also remain broadly consistent.

11. SUMMARY AND NEXT STEPS

The existing 132 kV OHL from Fort Augustus to Ardmore on the Isle of Skye is the sole connection from the mainland electricity transmission system to Skye and the Western Isles. Recent studies into the condition of the existing OHL have confirmed that the section between Quoich Substation and Ardmore Substation requires to be rebuilt and, upon completion of construction of the new OHL, the existing transmission OHL's would be removed. Furthermore, as a result of an increase in the renewable energy projects for which access to the electricity transmission network is being formally requested, there is a requirement to increase the capacity of the existing OHL for the entirety of its length.

As a result of the change in the project need, a network reinforcement strategy has been produced which sets out the way in which SHE Transmission has assessed the requirements for this part of the electricity transmission network. A series of studies and assessments have been undertaken to establish the most appropriate balanced strategic long-term approach, allowing the majority of the major infrastructure activities to be undertaken at the same time, minimising the need for future major project construction activity and disruption.

In addition, much of the previous work and consultations on the route for a replacement OHL remain relevant and have been valuable in understanding the key constraints and opportunities associated with this project. Building on this previous work, the OHL routes have been re-appraised in light of the change to the project need, the results of which are set out within this document.

The preferred route has been selected on the basis that it is considered to provide an optimum balance of environmental, technical and economic factors. It is recognised that the proposed replacement OHL is routed through a sensitive environment with challenging terrain in places. Moving forward, confirmation of the proposed route (generally 1 km wide) and design solutions will be informed by this and further consultation exercises, and through detailed surveys, which may identify any additional and/or currently unknown engineering, environmental or land use constraints.

Through a programme of coordinated, proactive, targeted and timely engagement with all key stakeholder groups, SHE Transmission seek to understand respective positions and ensure, as far as is reasonably practical, that stakeholders views are represented in the final design of the project solution.

To this end, further public consultation on a preferred design solution and alignment for the new OHL (approximately 200 m width depending on constraints) will take place later in 2020. It is anticipated that an application for consent under section 37 of the Electricity Act 1989 to construct and operate the new OHL on a proposed alignment will be submitted in 2021. The aim is to complete construction of the project by 2025.

When providing comments and feedback on this Consultation Document, SHE Transmission plc would be grateful for your consideration of the questions below:

1. Have we adequately explained the changes in respect of the need for this Project?
2. Have we adequately explained the reasons why the capacity of the line has to increase which will result in changes to the existing infrastructure along its route?
3. Have we adequately explained the methodology used to re-appraise the preferred route for the new OHL design?
4. Are there any factors, or environmental features, that you consider may have been overlooked during the route appraisal process?
5. Do you have any other comments in relation to the drivers for the project, related to the transmission infrastructure requirements, or preferred route?

All comments are requested by 24th April 2020. A Report on Consultation will be produced which will document the consultations received, and the decisions made in light of these responses.

Scottish & Southern Electricity Networks

Section 0

Section 1

Section 2

Section 3

Section 4

Section 5

Section 6

N

0 2.75 5.5 11 16.5 22 Kilometers

Scale - 1:400,000

Key

Corridor

Section Divider

Route Options

Section 0 - Ardmore to Edinbane

- 0A - Existing
- 0B - Carradh Mor
- 0C - Greshornish

Section 0 - Dunvegan to Edinbane

- 0D - Existing
- 0E - Ben Aketil

Section 1 - Edinbane to Sligachan

- 1A - Existing
- 1B - A863 - Bracadale
- 1C - Tungadal - Sligachan

Section 2 - Sligachan to Broadford

- 2A - Existing
- 2B - The Braes

Section 3 - Broadford to Kyle Rhea

- 3A - Existing
- 3B - Glen Arroch
- 3C - A87
- 3D - Beinn na Caillich
- 3E - Coire na Coinnich

Section 4 - Kyle Rhea to Loch Cuaich/Loch Cluanie

- 4A - Existing
- 4B - Glen More-Glen Shiel
- 4C - North of Loch Alsh and Loch Duich

Section 5 - Loch Cuaich/Loch Cluanie to Invergarry/Glen Moriston

- 5A - Existing
- 5B - South Glen Garry
- 5C - Loch Cluanie-Glen Moriston
- 5D - Loch Cluanie-Loch Loyne
- 5E - Glen Moriston-Loch Loyne
- 5F - Forestry Commission

Section 6 - Invergarry/Glen Moriston to Fort Augustus

- 6A - Existing
- 6B - Beauly-Denny Wayleave
- 6C - Skye T
- 6D - Caledonian Canal

Project No: LT91

Project: Skye Reinforcement

Title: Figure 1 - Corridor and Route Options

Drawn by: LT Date: 05/03/2020

Drawing: 119026-D-RO1.0-1.0.0