

# Skye Reinforcement Project

EIA Report:  
Volume 1 - Main Report

September 2022



**Scottish & Southern**  
Electricity Networks

TRANSMISSION



# VOLUME 1: MAIN REPORT

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## GLOSSARY AND ABBREVIATIONS

132 kV	132 kilovolt (132,000 volt) operating voltage electrical circuit
ADSS	All Dielectric Self Supporting, an optical fibre cable used as a communications medium along overhead transmission lines which often share the same support structures as the electrical conductors
AEOI	Adverse Effect on Integrity is a term used in the context of the Habitat Regulations to determine whether or not there would be an adverse effect on the integrity of a European designated site by a plan or project
Alternative Alignment	An alternative overhead line alignment option within Section 3 of the project between Broadford and Kyle Rhea, via Glen Arroch, for which consent under section 37 of the Electricity Act 1989 is also sought
AN	Audible Noise
AOD	Above Ordnance Datum
Applicant	Scottish Hydro Electric Transmission plc who, operating and known as Scottish and Southern Electricity Networks Transmission, own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands.
ASNW	Ancient Semi-Natural Woodland
ATC	Automatic Traffic Counter
ATP	Area Tourism Partnership
ATV	All-Terrain Vehicle
AWI	Ancient Woodland Inventory
BAP	Biodiversity Action Plan
BEIS	Business, Energy and Industrial Strategy
BGL	Below Ground Level
BGS	British Geological Survey
BNG	Biodiversity Net Gain is a process which leaves nature in a better state than it started
BoCC	Birds of Conservation Concern
BPP	Bird Protection Plan
BT	British Telecom
CAPEX	Capital Expenditure
CAR	Controlled Activities Regulations, also known as The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (and amendments), apply regulatory control over activities which may affect Scotland's water environment.
CBA	Cost Benefit Analysis
CCC	Committee on Climate Change
CEMP	Construction Environmental Management Plan

CGL	Card Geotechnics Limited
CIEEM	Chartered Institute of Ecology and Environmental Management
CIfA	Chartered Institute for Archaeologists
CIRIA	Construction Industry Research and Information Association
CMS	Construction Method Statement
Conductor	A metallic wire strung from structure to structure, to carry electric current.
CoWRP	Control of Woodland Removal Policy
CSE	Cable Sealing End compounds are required to facilitate transition from underground cable to overhead line (and vice versa).
CTMP	Construction Traffic Management Plan
dB	Decibel, a measure of sound level
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DLR	Dynamic Line Rating
DMG	Deer Management Group
DMRB	Design Manual for Roads and Bridges
DTM	Digital Terrain Model
DWPA	Drinking Water Protected Area
EC	European Commission
EclA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
ECU	Energy Consents Unit
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.
EMF	Electromagnetic Field
EMI	Electromagnetic Interference
EPZ	Equi-Potential Zone
ESO	Electricity Systems Operator
ESQCR	Electricity Safety, Quality and Continuity Regulations
EU	European Union
FLS	Forestry and Land Scotland
FM	Frequency Modulated
FTE	Full Time Equivalent
FWPM	Freshwater Pearl Mussel
GB	Great Britain

GCR	Geological Conservation Review
GDL	Garden and Designed Landscape, as listed on the Inventory of Gardens and Designed Landscapes held by Historic Environment Scotland
GEMPs	General Environmental Management Plans
GET	Golden Eagle Topographical is a model that analyses Golden eagle range use based on topography
GI	Ground Investigation
GIS	Geographic Information System
GPP	Guidance for Pollution Prevention
GVA	Gross Value Added
GVLIA3	Guidelines for Landscape and Visual Impact Assessment 3rd Edition
GW	Gigawatt, a measure of power. 1 GW = 1,000,000,000 W
GDTE	Groundwater Dependent Terrestrial Ecosystem
GWP	Global Warming Potential
Ha	Hectare. An area measuring 10,000 square metres
HDD	Horizontal Directional Drill
HEL	Heritage Environmental Limited
HER	Historic Environment Record
HES	Historic Environment Scotland
HET	Historic Environment Team
HGV	Heavy Goods Vehicle
HIA	Herbivore Impact Assessment
HMP	Habitat Management Plan
HRA	Habitat Regulations Appraisal must be carried out by the 'competent authority' if a plan or project (either alone or in combination with other plans or projects) could affect a European designated site. The Applicant is required to submit scientific evidence to enable the competent authority to complete the HRA and this evidence is typically submitted in the form of a 'Shadow HRA'.
HRES	Highland Renewable Energy Strategy
HRSG	Highland Raptor Study Group
HVDC	High Voltage Direct Current
HwLDP	Highland Wide Local Development Plan
ICNIRP	International Commission on Non-Ionising Radiation Protection
IEF	Important Ecological Feature
IEMA	Institute of Environmental Management and Assessment
IMFLDP	Inner Moray Firth Local Development Plan
INNS	Invasive Non-Native Species

IROPI	Imperative Reasons of Overriding Public Interest is a term used in the context of a HRA. Should a plan or project adversely affect a European designated site, and having established there are no feasible alternative solutions, the 'competent authority' must be able to identify 'imperative reasons of overriding public interest' that justify the plan or project despite the environmental damage it will cause
IUCN	International Union for the conservation of Nature
JNCC	Joint Nature Conservation Committee
LB	Listed Building
LBAP	Local Biodiversity Action Plan
LCoW	Landscape Clerk of Works
LCT	Landscape Character Type
LCZ	Local Character Zone
LEPO	Long-established Woodlands of Plantation Origin
LGV	Light Goods Vehicle
LoD	Limit of Deviation. The area either side of the proposed alignment and ancillary works within which micro-siting may take place in accordance with the conditions of the Section 37 consent.
LOTI	Large Onshore Transmission Investment
LTFP	Long-Term Forestry Plan
LTMP	Long-Term Management Plan
LVIA	Landscape and Visual Impact Assessment
MAGIC	Multi-Agency Geographic Information for the Countryside
Mitigation	Term used to identify measures that are identified to prevent, reduce or remedy any potentially significant adverse environmental effects, beyond that already taken into account as normal good practice.
MoD	Ministry of Defence
MPA	Marine Protected Area
MSS	Marine Science Scotland
MVA	Mega Volt Amps
MW	Megawatt, a measure of power. 1 MW = 1,000,000 W
NBN	National Biodiversity Network
NCI	Nature Conservation Importance
NDSFB	Ness District Salmon Fisheries Board
NeSTS	New Suite of Transmission Structures. A project to create and implement a new design of overhead transmission line structures
NGR	National Grid Reference
NHZ	Natural Heritage Zone

NPF3	National Planning Framework 3, a long-term development strategy for Scotland
NPF4	National Planning Framework 4, the successor to NPF3 and currently under consultative draft
NRTF	National Road Traffic Forecast
NS	NatureScot is a public body responsible for Scotland's natural heritage and advisor to the Scottish Government
NSA	National Scenic Area. A national level designation applied to those landscapes considered to be of exceptional scenic value
NVC	National Vegetation Classification
OAMP	Outdoor Access Management Plan
OC	Operational Corridor
OHL	Overhead Line. An electric line installed above ground, usually supported by lattice steel towers or wooden poles
OPEX	Operational Expenditure
OPGW	Optical Ground Wire
OS	Ordnance Survey
PAN	Planning Advice Note
PCMP	Peat and Carbon Management Plan
Planning Application	An application for planning permission under the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006 and by the Planning (Scotland) Act 2019
PLHRA	Peat Landslide and Hazard Risk Assessment
PPG	Pollution Prevention Guidance Notes
PRI	Public Road Improvement
Proposed Alignment	The proposed alignment of the OHL and UGC elements of the Proposed Development for which consent under section 37 of the Electricity Act 1989 is sought
Proposed Development	The Proposed Development is taken to be the description of the OHL components, UGC components, cable sealing end compounds, access arrangements and any associated construction activities and ancillary works. Within Section 3 of the Project between Broadford and Kyle Rhea, via Glen Arroch, the Proposed Development includes a Proposed Alignment for the OHL and an Alternative Alignment, including ancillary works.
PROW	Public Right of Way
PWS	Private Water Supply
PYE	Person Year Employment
RAG	Red-Amber-Green
RFI	Radio Frequency Interference



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
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation. 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
SBL	Scottish Biodiversity List
Section	Given the length of the route for the Proposed Development, for the purposes of this EIA Report the route for the new 132 kV transmission connection has been split into seven geographically defined 'Sections' to describe more easily the Proposed Development and the baseline environmental factors. There are seven sections from Section 0 to Section 6
Section 37	An application for development consent under Section 37 of the Electricity Act 1989
SEPA	Scottish Environment Protection Agency
SFA	Scottish Forestry Alliance
SHEPD	Scottish Hydro Electric Power Distribution
SLA	Special Landscape Area. Landscapes designated by The Highland Council which are considered to be of regional/local importance for their scenic qualities.
SLQ	Special Landscape Quality
SME	Small and Medium Enterprise
SSEN Transmission	Scottish and Southern Electricity Networks Transmission own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands
SNH	Scottish Natural Heritage, former name of the public body NatureScot which changed in August 2020
SM	Scheduled Monument
SPA	Special Protection Area – designated under Directive 2009/147/EC on the Conservation of Wild Birds (the Birds Directive) to protect important bird habitats.
SPP	Scottish Planning Policy
SPPs	Species Protection Plans
SSSI	Site of Special Scientific Interest. 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.
SuDS	Sustainable Drainage System
TA	Transport Assessment
THC	The Highland Council

TN	Target Note
UGC	Underground Cable. An electric line installed below ground
UK	United Kingdom
UKBAP	United Kingdom Biodiversity Action Plans
UKFS	UK Forestry Standard
VP	Vantage Point
WCA	Wildlife and Countryside Act
WEWS	Water Environment and Water Services
WFD	Water Framework Directive
WLA	Wild Land Area
WLQ	Wild Land Quality
WT	Woodland Trust
ZTV	Zone of Theoretical Visibility – the computer-generated theoretical visibility of an object in the landscape

## PREFACE

Scottish Hydro Electric Transmission plc ("the Applicant"), operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission"), are applying for consent under section 37 of the Electricity Act 1989 to construct and operate approximately 110 kilometres (km) of new double circuit steel structure 132 kV overhead transmission line (OHL) between Fort Augustus Substation and Edinbane Substation, and approximately 27 km of new single circuit trident H wood pole (H pole) OHL between Edinbane Substation and Ardmore Substation. This electricity transmission project would also comprise approximately 24 km of underground cable. In total, the transmission connection extends over a distance of approximately 160 km.

In addition, the Applicant is seeking consent for a temporary diversion of the existing 132 kV OHL at Inchlaggan for approximately 750 m to facilitate construction of the new OHL in this location.

The electricity transmission project is referred to as the Skye Reinforcement Project.

Given the length of the route for the Proposed Development, for the purposes of this EIA Report, the route for the new 132 kV transmission connection has been split into seven defined geographical 'Sections' to describe more easily the Proposed Development and baseline environmental factors. These 'Sections', which were also adopted through the route and alignment selection stages of the project, are broadly defined as follows:

- Section 0 – Ardmore to Edinbane;
- Section 1 – Edinbane to North of Sligachan;
- Section 2 – North of Sligachan to Broadford;
- Section 3 – Broadford to Kyle Rhea;
- Section 4 – Kyle Rhea to Loch Cuaich;
- Section 5 – Loch Cuaich to Invergarry; and
- Section 6 – Invergarry to Fort Augustus.

The Proposed Development includes a Proposed Alignment for the OHL and UGC elements of the Proposed Development and an Alternative Alignment (OHL) within Section 3 of the project between Broadford and Kyle Rhea, via Glen Arroch. The decision taken by the Applicant to include both options in Section 3 within the consent application has been made given that both the Proposed Alignment within Section 3 and the Alternative Alignment cross the Kinloch and Kyleakin Hills Special Area of Conservation<sup>1</sup> (SAC). That means the Scottish Ministers have duties as the competent authority under the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations") to consider with respect to the SAC, including whether feasible alternatives exist, prior to making a decision on whether the project should receive consent.

The Applicant's preference is to construct and operate the Proposed Alignment, as presented in **Figures V1-1.1a to 1c: Overview of the Proposed Development**. If Scottish Ministers were to agree that the Applicant's Proposed Alignment within Section 3 should be consented, the Applicant would request that consent be granted for that option within Section 3, and refused in respect of the Alternative Alignment. In the event that Scottish Ministers were to conclude, contrary to the Applicant's view, that the Proposed Alignment within Section 3 should not be consented, the Applicant seeks consent for the Alternative Alignment. Only one of the options would be built and the Applicant requests that Scottish Ministers consent only one of the two options. This approach avoids the need to bring forward a separate application, and allows all relevant issues to be considered together. Doing so is important to ensuring security of supply is maintained, and that proposed renewable developments in support of Net Zero targets can be accommodated within reasonable timescales.

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<sup>1</sup> Also designated as a Site of Special Scientific Interest (SSSI).

This Environmental Impact Assessment Report (EIA Report) is submitted with the application in accordance with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the “2017 Regulations”).

The EIA Report contains the following volumes:

- Volume 1: Main Report;
- Volume 2: Technical topic based reports;
- Volume 3: Figures;
- Volume 4a: Visualisations to NatureScot guidelines<sup>2</sup>;
- Volume 4b: Visualisations to The Highland Council guidelines<sup>3</sup>;
- Volume 5: Appendices to support each of the Chapters in the EIA Report where required;
- Volume 6: EIA of Alternative Alignment; and
- Non-Technical Summary.

Notice of the section 37 application, including this EIA Report and associated documents and figures, will be available for viewing at the following public locations during normal opening hours:

- Portree and Raasay Service Point, Tigh-na-Sgìre, Park Lane, Portree, IV51 9GP (normal opening hours Monday to Friday 1.30pm to 4.30pm);
- Broadford Library and Service Point, Old Corry Road, Broadford, IV49 9AB (normal opening hours Tuesday to Friday 10.30am to 2pm and 3pm to 5pm); and
- Fort Augustus Village Hall, Bunoich Brae, Fort Augustus, PH32 4DG (opening of the hall to be arranged by appointment by calling 01320 366800).

An electronic version is available online at <https://www.ssen-transmission.co.uk/projects/skye-reinforcement/>

Any representations in respect of the application may be submitted via the Energy Consents Unit website at [www.energyconsents.scot/Register.aspx](http://www.energyconsents.scot/Register.aspx); by email to The Scottish Government, Energy Consents Unit mailbox at [representations@gov.scot](mailto:representations@gov.scot) or by post, to The Scottish Government, Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU, identifying the proposal and specifying the grounds of representation.

Written or emailed representations should be dated, clearly stating the name of the project (in block capitals), full return email and postal address of those making representations. Only representations sent by email to [representations@gov.scot](mailto:representations@gov.scot) will receive acknowledgement.

All representations should be received not later than the date falling 30 days from the date of the last published notice, although Ministers may consider representations received after this date. Any subsequent additional information which is submitted by the Applicant will be subject to further public notice in this manner, and representations to such information will be accepted as per this notice.

The EIA Report has been advertised in the following newspapers:

- Edinburgh Gazette;
- The Press and Journal; and
- West Highland Free Press.

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<sup>2</sup> Scottish Natural Heritage (SNH), (2017), Visual Representation of Wind Farms (Version 2.2) (SNH, 2017)

<sup>3</sup> The Highland Council (THC), (2016), Visualisation Standards for Wind Energy Developments (THC, 2016)

This EIA Report is available in other formats if required. For details, including costs, contact:

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