

PROJECT OVERVIEW

The Western Isles Connection will enable electricity generated from renewable projects on the Western Isles to be transferred to the Scottish mainland. This will be a key part in achieving the Scottish Government's objective of generating 100% of its energy needs from renewable sources, by 2020.

The Lewis Infrastructure project comprises the construction of a new substation at Stornoway and a connection to the new HVDC converter station at Grabhair (Gravir). This will enable the renewable generation in and around Stornoway access to the mainland, using Alternating Current (AC).

This consultation is being undertaken because we require to re-consider whether providing the Lewis Infrastructure link as a subsea cable, remains the best option for achieving the reinforcement of the existing electricity transmission infrastructure on Lewis.

LEWIS INFRASTRUCTURE - PREFERRED ROUTE



- The preferred route option follows the route of the existing overhead lines between Stornoway and Lacasaigh (Laxay).
- There would be a subsea crossing of Loch Eireasort between the two shore landing locations.
- A new route alignment is proposed from the south shore of Loch Eireasort to Grabhair (Gravir).

Existing overhead line for 33kV and 11kV at Loch Shobhall to be undergrounded, to reduce cumulative visual impact.



Extensive undergrounding is proposed on each side of Loch Eireasort to reduce the visual impact. Undergrounding on the north shore will extend to north of the A859 so lines will not be visible from Cemetery or War Memorial

OHL line will be routed along valley of Alt Gleann a Gharaidh Mhoir and not visible on sky line

Undergrounding of overhead line from north of Grabhair (Gravir) village to the converter site.



LEWIS INFRASTRUCTURE

UNDERGROUNDING AT LOCH EIREASORT

NORTH SHORE



SOUTH SHORE



CONSULTATION - THE NEXT STEPS

Your comments are important and will be taken into consideration as the project moves forward. There will be a further stage of consultation in due course.

Please send your comments, or for further information please write, to:

Neil Anderson, Scottish Hydro Electric Transmission plc, Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ

Email: neil.1.anderson@sse.com

Comments on our proposals should be submitted by Monday 30th September 2013.

A website for this project has been set up, which will be updated with this presentation material. The web page can be found at www.sse.com/WesternIsles



BACKGROUND TO THE PROJECT

In March 2007, consultation with the public on the Western Isles was undertaken as to whether the link between the Grabhair (Gravir) converter station and the existing Stornoway Grid substation should be an overland, overhead wood pole line, or a subsea cable.

CHANGES TO THE PROJECT SINCE 2009

Since 2009, several large projects have been granted connection at Stornoway substation:

- Siadar Lewis Wave
- Tolsta Wind Farm
- Stornoway Wind Farm
- Embedded Generation

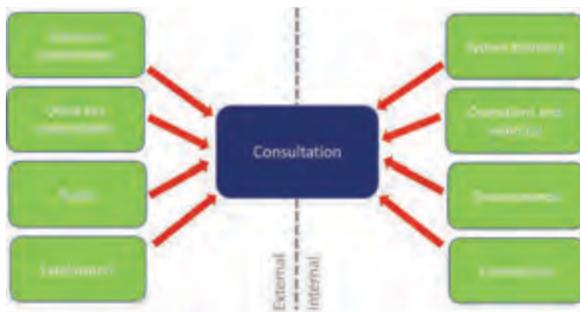
The result of this additional renewable generation means that the capacity of the proposed link between Stornoway and Grabhair (Gravir) has to be significantly increased (greater than double the capacity).

OTHER CHANGES SINCE 2009

- Increased cost of cables
- Increased timescales to procure cables

SHE Transmission plc is therefore consulting with statutory stakeholders and the public on the overland and subsea route options for the Lewis Infrastructure.

ROUTE SELECTION PROCESS



OPTIONS UNDER CONSIDERATION

Sub Sea Route	Overhead Line Western Route (preferred option)	Overhead Line Eastern Route	Comments
●	●	●	Environmental Effects - Construction Subsea cable would have less environmental impact than OHL (overhead line) options during construction.
●	●	●	Environmental Effects - Operation Subsea cable would have less environmental impact than OHL options on completion. The western OHL route is considered to have less visual impact than the eastern OHL for a large portion of its length.
●	●	●	Technical Considerations Marine works have a greater health and safety risk during construction; availability of subsea cable is now a risk to completion due to increased market demand.
●	●	●	Operational Considerations Length of time for repair of subsea cable is significant and requires specialised vessels. Outage from this type of fault could be months. The western OHL would be easier to repair as this is close to the public road.
●	●	●	Cost Cost of subsea cable more than double the cost of OHL option. Cost of repair to subsea cables is also significant.

THE PREFERRED ROUTE OPTION

Key aspects of the western overland route are:

- Follows the route of the existing overhead line from Lacasaidh to Stornoway
- Significant sections would be underground where the route is close to Loch Eireasort and Grabhair (Gravir)
- Existing overhead line for 33kV and 11kV at Loch Shobhail to be undergrounded, to reduce cumulative visual impact
- Careful route selection away from key vantage points, to limit visual impacts

NEW STORNOWAY SUBSTATION

We are reviewing the site for the proposed new substation, based on the latest requirements of the project. We have identified two possible alternatives to the consented site, as shown below (sites B and C). A preliminary review suggests that site C would be the preferred option.

SUBSTATION SITE OPTIONS

