

Scottish Hydro Electric Transmission plc

Annual report of the Managing Director of Transmission

This report and statement have been prepared by the Managing Director of Transmission for the directors of Scottish Hydro Electric Transmission plc (“SHE Transmission”) in accordance with the provisions of paragraph 4(b) of Special Condition 2I of SHE Transmission’s licence.

SHE Transmission is a wholly-owned subsidiary of SSE plc (“SSE”). SHE Transmission is managed and operated as part of Scottish and Southern Energy Power Distribution Limited (“SSEPD”) in accordance with the direction issued by the Gas and Electricity Markets Authority (“the Authority”) under paragraph 9 of Special Condition 2I (previously paragraph 9 of Special Condition D) of SHE Transmission’s licence.

This report and statement have been made as soon as practicable after the end of the calendar year 2015.

Report for the year ending 31 December 2015

As the Managing Director of Transmission, I am responsible for the conduct of the transmission business and any external transmission activities.

This year has been a successful year for SHE Transmission with significant progress across a number of areas within our business including:

- Completion and energisation of four strategic projects on our network including the Beaully Denny overhead line scheme.
- Significant progress in the construction of the Caithness Moray HVDC scheme and associated AC infrastructure.
- Progression and completion of a number of significant schemes to facilitate connection of renewable generation across our network.
- Best ever Energy Not Supplied performance with zero MWh lost during the year reflecting a number of improvements in the management and operation of our network including benefits realised from works carried out by our protection task force.

In making this report for the year 2015, I take into account the above factors that are of material impact to the conduct of the transmission business.

Completion of Strategic Projects

Four strategic projects were substantially complete and energised during 2015:

Beaully Denny

The 400kV replacement overhead line has been constructed jointly with Scottish Power Energy Networks (SPEN) and will serve the country’s energy needs for around the next 60

years. SHE Transmission's scope included 200km of new 400kV overhead line with associated substation and ancillary works with total costs in the region of £670m. The project was constructed in three sections:

- North section (Beaully Substation to Fort Augustus Substation)
- Centre section (Fort Augustus to Tummel Substation)
- South section (Tummel Substation to Braco Substation and the Wharry Burn – the interface with Scottish Power Transmission (SPT))

The northern and centre sections of the 200km 400kV line were completed and energised during 2013 and 2014 with the final section (South) completed during 2015



Beaully Denny – Tummel substation under construction and new conductors being installed

Beaully Blackhillock Kintore

The £94m project to refurbish and replace the 275kV overhead line from Beaully via Blackhillock to Kintore was approved by Ofgem in 2010, with work starting soon after. A key challenge for this project has been to secure the required system outages to carry out the required overhead line replacement whilst maintaining network security. Careful planning spanning a number of years culminated in replacement and energisation of the final section

during 2015.



BBK – erecting a new tower on the 275kV line

Beauly Mossford

The £54m project to construct a new 132kV overhead line from Beauly to a new substation at Corriemoillie was the first Strategic Wider Works (SWW) project to be approved during the RIIO-T1 price control. Construction on the scheme began in March 2013 with final commissioning and energisation during 2015 meaning the project is now successfully complete within time and budget.



Beauly Mossford – new towers erected

Kintyre Hunterston

The £200m subsea cable project to reinforce the 132kV transmission network on Kintyre was approved as a SWW scheme under the RIIO-T1 price control in 2013 with a view to providing additional security of supply to the Kintyre Peninsula as well as giving renewable energy developers the opportunity to connect to the network. The scope of the project comprises two 41km length 220kV subsea cables from the Kintyre Peninsula in Argyll to the existing mainland transmission network at Hunterston in North Ayrshire as well a new 16km 132kV overhead on Argyll. Significant construction works were completed on this scheme during 2015 including the installation of the 220kV subsea circuits and a new 220/132kV substation at Crossaig in Kintyre. The first subsea cable was successfully energised during 2015 with energisation and completion of the scheme following shortly afterwards during February 2016.

Caithness Moray HVDC Scheme

Our flagship project, Caithness-Moray, is being built to provide the capacity for around 1.2GW of renewable generation to connect in the north of Scotland and will cost in excess of £1bn. It's centred on a 100 mile underground and subsea cable running beneath the Moray Firth, using High Voltage Direct Current (HVDC) technology. As well as the requirement for HVDC Converter stations connecting the HVDC cables onto the AC transmission network, the project scope also includes construction of substantial AC infrastructure (overhead line and substation works) in both Caithness & Moray, including construction of one of the largest transmission substation sites in Europe at the existing Blackhillock site in Moray.

Significant progress has been made across all elements of the Caithness Moray scheme during 2015 with the following highlights:

- Detailed design works for both AC & DC elements progressing in line with schedule
- Progression of civil works on both the Converter and AC substation sites
- Subsea cable manufacture commencing approx. 7 months ahead of schedule
- Commencement of land HVDC cable installation (first 6km installed during 2017)



Caithness-Moray – Civil Construction Works at Blackhillock Substation

Other Significant Schemes to Facilitate Connection of Renewable Generation

In addition to the strategic schemes described above which are required to provide additional system capacity across the wider transmission network, a number of other significant schemes were progressed during 2015 to provide connection for specific generators:

- Completion of the Knocknagael to Foyers 275kV reconductoring scheme to facilitate additional renewable generation connections south of Beauly. This scheme involved replacing the existing overhead line conductor on the existing Knocknagael to Foyers 275kV circuit with a higher rated capacity
- Construction of Farigaig substation and associated overhead line connection works, 30km south of Beauly, to provide connection for Dumnaglass (94MW) and Corriegarth (69MW) wind farm schemes
- Installation of a fourth Super Grid Transformer (SGT) at Fort Augustus substation to allow connection of additional generation in the Fort Augustus area

There are four other points of particular interest for 2015:

§ During the course of 2015, SHE Transmission has continued to work closely with Ofgem and the two other Transmission Owners (TOs) to complete the first submission of the Network Output Assessment (NOA) as part of the Integrated Transmission Planning and Regulation (ITPR) project. SHE Transmission will continue to work with industry parties for future year submissions

- § Significant works were also undertaken during 2015 to operate and maintain the transmission infrastructure asset base. As well as ongoing operating and maintenance activities, approx. £20m expenditure was incurred to replace or refurbish existing assets in line with approved asset health drivers that were defined and approved in the RIIO-T1 business plan. The transmission network has grown substantially over the past few years and, in line with newly commissioned assets during 2015, there is recognition of the need to provide additional focus in this area over the coming years.
- § SHE Transmission has a license duty to develop and construct transmission infrastructure to facilitate connection of new generation onto the network. This means there is an ongoing program of works to develop infrastructure to meet our contracted generation position, which means there is an ongoing program of works to develop a portfolio of schemes through the development pre-construction phases. Typically, the preconstruction phase will involve early project definition and optioneering, site and route selection culminating in detailed design and contract negotiations in advance of construction approval. During the course of 2015, progress has been made on a number of schemes within the development portfolio including significant works on the proposed HVDC subsea connections to both the Western & Shetland isles.
- § SHE Transmission received and completed over 100 generation connection applications, within 60 days of receiving a full application, during the year. Government announcements in relation to future generation subsidy levels means future levels of generation applications are likely to reduce year on year.

While the above factors have impacted the operation of the transmission business during the year, it is my opinion that adequate staff, resources and finances were available to the business.

During the year ending 31 December 2015, it is my opinion that the transmission business was efficiently and effectively managed and operated in accordance with SHE Transmission's duty under section 9(2)(a) of the Electricity Act 1989 and the transmission licence.

I report on the matters pertinent to the discharge of my responsibilities below.

Staff and Resources

Adequate staff and resources were available to the transmission business during the year ending 31 December 2015.

During the last calendar year, we have recruited an additional 57 staff, taking our headcount to 492 full time equivalent ("FTE") staff directly employed by SHE Transmission at 31 December 2015. In addition to our own staff, we receive services from Scottish Hydro Electric Power Distribution plc ("SHEPD") along with corporate services from SSE Services plc.

As part of the SSEPD management structure and SSE Services plc corporate structure, the resources available to the transmission business include the use of premises and staff and these are subject to the conditions under paragraph 9 of Special Condition 2I of SHE Transmission's licence. Use of premises and staff is subject to service level agreements and annual audits on cross subsidy are undertaken and submitted to Ofgem.

All staff employed by SSE are notified of SHE Transmission's obligations under Special Condition 2B of SHE Transmission's licence.

Finance

Adequate finance was available to the transmission business during the year ending 31 December 2015.

SHE Transmission's financial year for both statutory and regulatory reporting is 1 April to 31 March. Hence, this report covers a part of financial year 2014-15 and a part of financial year 2015-16. In respect of financial year 2014-15, the regulatory accounts were approved by the Directors on 21 July 2015. Regulatory accounts for the financial year 2015-16 were approved on 21 July 2016.

Looking ahead; Arrangements for the year ending 31 December 2016

It is my opinion that adequate arrangements have been made for the year ending 2016 for the efficient and effective management and operation of the transmission business in accordance with SHE Transmission's duty under section 9(2)(a) of the Electricity Act 1989 and the transmission licence.

These arrangements allow SHE Transmission to maintain full managerial and operational independence of the transmission business from SHE Transmission's affiliates and related undertakings (subject to the direction issued by the Authority under paragraph 9 of Special Condition 2I of SHE Transmission's licence).

In respect of financial year 2015-16, on 21 July 2015 the directors approved a Certificate of Availability of Resources that confirmed their reasonable expectation that SHE Transmission would have sufficient financial resources and financial facilities for the subsequent 12 months. This covers the period from 01 January 2016 to 31 March 2016.

In respect of financial year 2016-17, on 21 July 2016 the directors approved a Certificate of Availability of Resources that confirmed their reasonable expectation that SHE Transmission would have sufficient financial resources and financial facilities for the subsequent 12 months. This covers the period from 01 April 2016 to 31 March 2017, 3 months beyond the date required for this Managing Directors report.

Resources and finance

For the year ending 31 December 2016, taking into account the planned capital programme, it is anticipated that there will be a similar level of business activities in the transmission business compared to 2015, and hence the staff and resources available to the transmission business.

SHE Transmission remains committed to progressing its Large Transmission Projects during the year ending 31 December 2016. Key projects under construction in 2016 are Caithness Moray along with a number of significant connection schemes – Dumnaglass (94MW)/Corrigarth (69MW), Bhlariadh (108MW) & Benneuin (109MW).

The Caithness Moray project has a fully resourced programme (for all components) and this takes cognisance of the demand the project will have on key staff and supporting personnel, both internal and external, throughout the project lifecycle. Assessment of both the retained and required resources forms part of the monthly programme review.

A review will be undertaken during 2016 to assess the overall resource availability within SHE Transmission and in particular ensure efficient transfer of personnel from completed schemes into newly formed teams to deliver the new connection projects above. Additionally, this review will also highlight opportunity and requirements for ongoing development of the transmission operations and maintenance team taking account of growth in the transmission asset base.

Additionally, a procurement schedule is developed from the transmission delivery programme, which identifies key contractors and suppliers and when these are required to be procured to align with the programme constraints and demands.

Adequate staff and resources will be available to the transmission business for the planned programme of works.

SHE Transmission is adequately funded at 31 December 2015, having diverse sources of funding comprising £350m of external loans with EIB and £613.1m Loan Stock with SSE plc. These are all repayable on 2021 or beyond. SHE Transmission also has £310m of other inter company balances, all repayable on demand.

SHE Transmission has access to the groups revolving credit facility and bilateral bank facilities totalling £1.5bn, which currently mature in July 2021 and November 2021 respectively. In addition, SHE Transmission currently has access to a further £200m facility with EIB.

Therefore, in my opinion, the available staff, resources and finance are adequate.

David Gardner

Managing Director of Transmission