

## **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 Electricity Networks (“SSEN) in accordance with the direction issued by the Gas and Electricity Markets Authority (“the Authority”) under paragraph 9 of Special Condition 2I of SHE Transmission’s licence.

This report and statement have been made as soon as practicable after the end of the calendar year 2016.

### **Report for the year ending 31 December 2016**

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:

- Continued 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.
- Continued strong Energy Not Supplied performance during the year with only 4.5 MWH lost during the year.

In making this report for the year 2016, I take into account the above factors that are of material impact to the conduct of the transmission business.

#### *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 2016 with the following highlights:

- Completion of all major civil works including structures, platforms and bases across all AC substations. Significant progress in the installation of electrical equipment, including control and protection panels, across all AC substations.



Caithness Moray - Spittal AC substation with SGTs in the foreground and GIS building to the rear

- Significant progress with structural steel works at both converter sites (Blackhillock & Spittal). The majority of main circuit manufacture is complete for both sites and factory system testing is underway in line with the agreed programme.



Caithness Moray – AC substation is in the foreground with converter site to the background

- Installation of onshore cable works in Caithness was complete during the year and significant progress was made in Moray with 80% installed by the year end.

All Horizontal Directional Drills (HDDs) were complete in Caithness by the end of the year and work is progressing to complete outstanding HDDs in Moray during the early part of 2017.



Caithness Moray – Portgordon landfall (Moray) compound during HDD operations

- Manufacture of all subsea cable and fibre optic cable during the year in advance of the subsea laying campaigns which are due to commence during early 2017. The contractors cable laying vessel manufacture has progressed well during the year and is on schedule for completion in March 2017.



Caithness Moray – ABB Victoria (cable laying vessel) under construction

### *Other Significant Schemes to Facilitate Connection of Renewable Generation*

A number of other significant schemes were progressed or completed during 2016 to provide connection for specific generators:

- Completion of Farigaig substation and associated overhead line connection works, 30km south of Beauly, to provide connection for Dumnaglass (94MW) and Corriegarh (69MW) wind farm schemes
- The overhead line works required to connect two generators, Bhlariadh (108MW) and Beinneun (109MW), were substantially complete during 2016 in advance of the planned connection dates for both schemes in the first quarter 2017.
- Installation and energisation of a fourth Super Grid Transformer (SGT) at Fort Augustus substation to allow connection of additional generation in the Fort Augustus area
- Construction works commenced during 2016 to provide the required connection infrastructure for two large generation schemes – Aberdeen Offshore (99MW) and Stronelairg (227MW) wind farms.

There are four other points of particular interest for 2016:

- During the course of 2016, SHE Transmission has continued to work closely with Ofgem and the two other Transmission Owners (TOs) to complete the second 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 2016 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 2016, 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. In response to government announcements on future subsidy



levels and the associated impact on our contracted generation position, a full review was undertaken during 2016 to ensure systems and processes were put in place to prioritise the development of schemes in the face of generation uncertainty. This has resulted in a more focussed approach in the development phase of our project lifecycle and ensures efficient and targeted deployment of resources across the development portfolio.

- SHE Transmission received and completed nearly 70 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 2016, 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 2016.

During the last calendar year, staff numbers dropped by 45 FTE, taking our headcount to 447 full time equivalent ("FTE") staff directly employed by SHE Transmission at 31 December 2016. 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 SHEPD 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 2016.

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 2015-16 and a part of financial year 2016-17. In respect of financial year 2015-16, the regulatory accounts were approved by the directors on 21 July 2016. Regulatory accounts for the financial year 2016-17 are currently under preparation and will be available for approval in July 2017.

### **Looking ahead; Arrangements for the year ending 31 December 2017**

It is my opinion that adequate arrangements have been made for the year ending 2017 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 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 to 31 March 2017. We are in the process of updating the Availability of Resources statement for 2017-18 covering the period up to 31 March 2018 and this will be available for approval and will be submitted to Ofgem in July 2017 in accordance with our licence.

### **Resources and finance**

For the year ending 31 December 2017, taking into account the planned capital programme, it is anticipated that there will be a slight drop in the level of business activities as some of our large capital projects near their end. SHE Transmission remains committed to progressing its Large Transmission Projects during the year ending 31 December 2017. Key projects under construction in 2017 are Caithness Moray along with a number of significant connection schemes – Dornell (220MW), Stronelairg (228MW), Aberdeen Bay (99MW). In addition, it's anticipated that construction works will commence to upgrade the existing overhead line between Fort Augustus and Fort William to facilitate additional generation in the Fort William area.

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.

An ongoing review is underway to highlight opportunity and requirements for ongoing development of the transmission operations and maintenance team taking account of growth

in the transmission asset base. Where possible this will involve transfer of existing staff from the delivery function.

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.

During 2016, SHE Transmission undertook a capital restructuring exercise which resulted in the issuance of 350m £1 ordinary shares for a cash consideration of £350m. It also converted £450m of inter company balances into Loan Stock repayable in 2026 and obtained a further £300m loan from EIB. Following this restructure, SHE Transmission is adequately funded at 31 December 2016 having diverse sources of funding comprising £650m of external loans with EIB and £1,063.1m Loan Stock with SSE plc. These are all repayable on 2021 or beyond. SHE Transmission also has £321m of net inter company balances receivable, all payable/repayable on demand.

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

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

**David Gardner**

**Managing Director of Transmission**