

Inveralmond House
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20 December 2012

Mr Niall Stuart
Chief Executive
Scottish Renewables

Dear Niall,

SHE Transmission: Projects Review

I am writing to you to set out the latest position with regard to the various projects being undertaken by Scottish Hydro Electric Transmission Plc (SHE Transmission) in line with its responsibility for maintaining and investing in the transmission network in its area, which comprises almost 5,300km of high voltage overhead lines and underground cables in the north of Scotland.

As the licensed transmission company for the area, SHE Transmission has to ensure there is sufficient network capacity for those within it seeking to generate electricity from renewable and other sources across a diverse, challenging and remote geographical region. This latest position reflects the completion of the first phase of a SHE Transmission review of its projects.

Progress in upgrading the transmission network

The electricity transmission network in the north of Scotland is going through a fundamental change. It was originally designed to collect power from remote electricity generation (notably hydro-electric and gas) and transport it via a network of 132kV and 275kV circuits to demand centres located on the periphery of the network. In many instances the demand centres were connected via long radial connections (for example, the Western Isles, Caithness and Argyll).

Over the last decade, the demand for access to the grid from developers of renewable energy has steadily grown from a base of 3GW (gigawatts) to a level approaching 11GW. This increase has been driven predominantly by changes in public policy, including Climate Change Acts, mandatory EU renewable energy targets for the UK and Scottish targets for production of electricity from renewable sources. To meet this challenge the network needs to be strengthened to allow for the bulk transfer of power between the north and south of Scotland. Our plans for the network have been approved by Ofgem with a proposal for up to £1.1bn capital investment programme, with the flexibility to increase this by up to a further £4bn if required.

Significant progress has been and is being made. We have recently completed, on time and within budget, all construction and commissioning works relating to the Knocknagael substation outside Inverness at a cost of £40m. In addition, work on upgrading and reinforcing the transmission network between Beaulay and Dounreay is continuing and is on schedule for completion in the first quarter of 2013. Full construction work on the replacement of SSE's part of the replacement line from Beaulay to Denny is now well under way, including the development of five major grid substations. The line will provide additional capacity for renewable electricity generation when it and the part being developed and constructed by SP Transmission are completed.

Other projects in construction – such as replacement of the conductors of the 275kV transmission lines between Beauly and Blackhillock; and Blackhillock and Kintore; and construction of a new substation at Corriemoillie – are under way.

Key challenges and issues affecting future development

Looking ahead, and based on analysis using scenarios from the Electricity Networks Strategy Group (ENSG) – a cross-industry group jointly chaired by the UK Government and Ofgem – and evidence within its area of future electricity generation connections, SHE Transmission has developed proposed reinforcement projects to increase the capacity of the transmission network. It is intended that these will be brought forward in a phased manner over the next 10 years. Although, there is uncertainty associated with large transmission projects (as SHE Transmission's Summer Consultation and its Business Plan acknowledge), it is intended that these will be brought forward in a phased manner over the next 10 years.

SHE Transmission has restructured its business to help manage this uncertainty and to focus on the delivery of these large complex projects, and is working hard in conjunction with key stakeholders such as Ofgem, the Scottish and UK Governments, NGET, SP Transmission, planning authorities and consultees, developers and the supply chain to resolve any issues, many of which are outside its direct control, that could impact on this delivery programme.

Progressing these complex engineering projects is inevitably dependent on a number of requirements including:

- a clear need for the project in the first place;
- value for money for the customers who will ultimately pay for the work;
- ability to achieve the necessary planning consents;
- support on the part of all key stakeholders; and
- a supply chain that can meet delivery timescales.

Against this background, understanding and managing risk is a major factor in securing the success of any project. This often involves the alignment of a number of variables and, consequently, construction programmes need to be flexible to allow for these external factors.

Securing the necessary circuit and/or substation outages on the existing network is essential to allow the reinforcement work to commence and/or be completed. Recognising that it is not possible to take everything out of service at once whilst maintaining security and quality of supply, outage planning and coordination is a key activity that is continually reviewed to ensure that any opportunity to advance works is identified, and where possible, realised.

Demand for key plant items (for example HVDC technology, cable manufacturing capacity and subsea installation equipment) is of particular concern to SHE Transmission, which is exacerbated by a restricted market place and the number of competing projects within the UK as well as further afield across Europe and the rest of the world. Equally important is the availability of people with the necessary skills and experience.

The proposed reinforcements are being triggered by connection applications from electricity generation developers. While these developers remain committed to their projects, often demonstrated by posting the necessary underwriting security, then SHE Transmission is able to make the case for funding for transmission investment with Ofgem. Securing this developer commitment at a time when the industry is undergoing a period of regulatory and political review (i.e. Project TransmiT, DECC Steering Group on the affordability of Island generation, ITPR, the UK Energy Bill) is more uncertain.

Impact of the challenges facing SHE Transmission

In light of the above challenges, and in order to give its customers and other stakeholders more certainty, SHE Transmission is undertaking an in depth review of the developments in the north of Scotland. The first phase of the review is now complete and I can confirm that, based on analysis undertaken so far, changes to the expected delivery dates of a number of projects have been identified following assessment of planning, land acquisition, system

outage planning, the global supply chain for subsea cables and other materials and environmental constraints.

The replacement overhead line between Beaully substation and the new Corriemollie substation is now scheduled to be completed in late 2016. This delay is in order to meet conditions associated with the planning consent which was granted in October 2012 and seasonal constraints associated with the construction works.

The works to reinforce the network in Caithness (including the Caithness Moray subsea cable, Blackhillock substation redevelopment, and onshore works in north Caithness and Ross & Cromarty) are, subject to the challenges set out above, currently expected to be completed in 2018. There have been a number of changes to the construction programme which has been affected by: the securing of planning consents, land acquisition, the complex co-ordination of system outages across the suite of works, and, principally, delivery constraints in the global supply chain for subsea cables.

Island links to Orkney and Shetland are also now currently scheduled for completion, subject to the challenges set out above, in 2018. Both projects have experienced challenges in securing planning consents and land acquisition, and will be subject to delivery constraints in the global supply chain for subsea cables. In addition, the Orkney link is challenged by further changes to the onshore landing arrangements and environmental constraints, which impacted on the proposed cable routing.

SHE Transmission continues to progress development of the link to the Western Isles with the supply chain and other key stakeholders, including Ofgem. Following the previous statement on 1 November 2012, further discussions have been held with UK Government and Scottish Government regarding the cost and therefore affordability of the link to generators and, ultimately, to electricity consumers in Great Britain.

SHE Transmission continues to work closely with all parties involved in the Scottish Islands Renewables Generation group, chaired by UK Government and Scottish Government, which is considering the costs of generating power from the Scottish islands and options for addressing or mitigating the impact of transmission charges. It is clear there are significant issues for the Steering Group to resolve and SHE Transmission has emphasised the importance of timely action to meet the challenging programme for commencing work on the Western Isles link. A further update on this project will be made in the early months of 2013.

Summary

SHE Transmission is committed to meeting the changing needs of our current and future customers and continues to engage with developers, statutory bodies, transmission equipment suppliers, the regulator and government and other stakeholders to create capacity in the system while working to meet the extensive requirements of a major change to the network.

As you would expect, SHE Transmission is keeping all aspects of its programme under review and is committed to sharing any further changes to its programme with all relevant stakeholders as soon as is practical. In the meantime, if you would like to discuss the issues raised in this letter, please contact us via networkcomms@sse.com and we will arrange a suitable opportunity to do so.

Yours sincerely

David Gardner
Director of Transmission