

SUBMISSION FROM SCOTTISH WATER

Scottish Water welcomes the opportunity to provide evidence on the above issue.

Please find enclosed our detailed response to this request. Our response follows the structure as outlined in the 'terms of reference' and answers relevant questions in turn.

Supply and whether there is sufficient generation to meet demand, in particular to the end of the decade. What role will new generation that is under construction, or has been consented play? The Scottish Government aims to have a “largely decarbonised electricity system by 2030”. What does this mean in practice, and are there sufficient tools in place to bridge the move from fossil fuels to renewables?

Scottish Water relies on a constant supply of energy to provide clean and safe drinking water and maintain wastewater operations for our customers. It is essential that long-term de-carbonisation aspirations and short-term demand needs are balanced.

The report presented to the Economy, Energy & Tourism Committee, entitled 'Security of Electricity Supply in Scotland: A paper by National Grid, SP Transmission, SHE Transmission', contains a statement that:-

“a skeleton restoration of the grid in Scotland, could be greater than 24 hours, with other associated evidence suggesting potentially greater than three days”.

This situation presents a number of challenges to our operational resilience.

If not appropriately managed, the closures of sites like Longannet Power Station will have a significant impact on operational resilience. Without base-load generation provisions this will lead to an increased risk of insufficient generation capacity; and will have an adverse impact on the GB de-rated capacity margin as a whole.

How predictable peak demand is at present, and how is this likely to change in the coming decade. In particular, what impact will the development of demand side response have? What could be done to improve developments in this area?

Scottish Water is one of the largest consumers of electricity in Scotland. Our demand is very predictable at present and is within agreed tolerances in our energy supply contract. We are looking to reduce our demand over the next ten years as we rationalise assets and introduce more energy-efficient processes.

Demand Side Response (DSR) could be a useful tool in helping Scottish Water to manage the impact of electricity price increases. There are of course challenges with adopting DSR approaches including the need to ensure compliance with our regulatory obligations.

A number of new transmission network projects are currently under construction or being planned. What role will these have in securing electricity supplies, and where should future investment be directed? What role might the distribution network, and a single European electricity market play in securing supplies?

We have no comment.

A number of significant changes to the electricity market have recently been finalised and are being put in place to ensure competition and cost reflective prices for consumers. Are policies such as the Capacity Mechanism under Electricity Market Reform adequate, and what other long term signals might be necessary to ensure security of supply?

So far the capacity mechanism has been mainly effective in securing new contracts for existing conventional power stations rather than securing new low carbon generation in the UK.

Scotland's current portfolio of wind and hydro generation schemes are making a contribution to Scotland's aspiration of a low carbon grid. However, at this stage wind and hydro generating stations alone are not an adequate solution to restart the grid in the Scotland transmission region, especially in the South and Central Belt. This is especially relevant if there is a potential GB grid outage before the transmission projects are completed.

Investment in new generation capacity post-Longannet is crucial to help manage security of supply issues. It is therefore important that investment in new base load power generation to replace Longannet is located in Scotland.

Any other matters concerning security of supply that you would like to bring to the Committee's attention.

Scottish Water is concerned about the "Black Start" capability in Scotland post-Longannet, especially before new Transmission projects are completed.

"Black Start" scenarios present a number of significant challenges and risks for Scottish Water's service delivery, particularly those of duration greater than 24 hours. This requires careful consideration of site operational capabilities, both with and without standby generators for extended periods, together with consideration of associated fuel storage and logistics challenges. Overall, it is likely that there would be a high risk of impacting Scottish Water's operational capability should a power outage of these durations occur.

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