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non-confidential response

Dinorwig-Pentir – Consultation on the project's Final Needs Case

Please find below our response to the questions set out in the Final Needs Case for this project.

Question 1: Do you agree with the technical need for investment on the transmission network?

Yes, we believe that the needs case has been made for the asset replacement of both the existing cables and switchgear. As outlined in the consultation, the cables have suffered significant outages over the last few years that have led to single circuit operation of the substation for significant periods of time, and in addition the asset health continues to deteriorate given the installation method and the age of the cables. The substation switchgear is also end of life with limited availability of parts and expertise from manufacturers.

Question 2: Do you agree with our conclusions on the technical options considered?

The three options considered are reflective of possible options.

Option 1 Three circuits with early substation replacement

This is the preferred technical solution. It replaces the cable circuits at the earliest opportunity and replaces the existing SF6 switchgear with a modern design with significantly reduced gas volume.

Option 2 Delay by 2 years: three circuits with SF6-free substation replacement

We believe that delaying the cable replacement until SF6 free switchgear is readily available is sub-optimal. Whilst we understand that progress has been made on the design of SF6 free switchgear that is potentially suitable for this type of installation (options 2 & 3), this is not yet available and may in reality be delayed as the design progresses through the type testing phase to commercial operation. During the [2 year] delay the cables will likely deteriorate further, which has the potential to increase costs for the consumer.

Option 3 Delay substation works by 2 years: three circuits now with SF6-free substation replacement later

This is a hybrid option of 2. It will require the integration of three cables into the existing two cable single bus substation. Technically this would require part of the substation to be replaced to accommodate the third cable. This will potentially require multiple outages with the switchgear at the resulting substation originating from different manufacturers.

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Given the age and condition and design (single bus) of the existing substation it would not be economically efficient to rely on the substation for the extend time period that may be required prior to SF6 free switchgear being available.

We agree with Ofgem that these three options represent the main design choices that are available for this project.

Question 3: Do you agree with our conclusions on the CBA and the appropriateness of the option taken forward?

We agree that Option 1 is the optimal solution.

The three-cable design will provide an appropriate level of redundancy for faults on the system and allows full operation of the power station as long as two out of the three cables are available.

The proposed design of the substation will lead to a significant reduction in the volume of SF6 gas compared to the existing substation, and the new substation will likely have a much-reduced underlying leakage rate.

The CBA shows that Option 1 is the lowest cost option from the customers perspective taking account of the various issues.

Question 4: Do you agree with our minded-to decision to retain the Dinorwig-Pentir project within the LOTI arrangements under RIIO-2?

Given the advanced state of this project we believe that it should be retained in the LOTI arrangements. If the project were to be removed from the LOTI process it would likely have significant implications for the delivery time scales of the project.

Question 5: Do you agree with our proposed approach to LPD for the Dinorwig-Pentir project?

We believe that the NGET should be sufficiently incentivised such that it delivers value for money to all customers from this project. Whilst the current mile stone approach looks to be reasonable given the sums involved and the complex nature of the project, we support Ofgem's view that it would be right to consider alternatives that will achieve the same effect.

Your faithfully

Simon Lord

Transmissions Services Director

