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Date  
31 May 2019  
Contact / Extension  
Lynne Bryceland  
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Dear James

**Western Isles transmission project: Consultation on Final Needs Case and Delivery Model**

This response is from SP Transmission (SPT), the onshore transmission owner (TO) for the South of Scotland. As a TO, we have a duty to ensure that we develop and maintain an economic, efficient and coordinated onshore transmission system. We therefore welcome the opportunity to share our views on the Final Needs Case and delivery model for SHE-T's proposed 600MW subsea cable between the Western Isles and the mainland.

Given Ofgem's forthcoming informal consultation on the proposed generic CPM licence conditions, which we will respond to with our detailed thoughts on the principle and application of the CPM framework, we have primarily restricted our views in this response to Ofgem's decision on the Final Needs Case and Delivery model for the Western Isles project.

We are in agreement with Ofgem that the Western Isles project meets the competition criteria of new, separable and high value (i.e. > £100m capital expenditure) and that Ofgem should approve the Final Needs Case for this transmission connection, given its necessity to unlock the renewable energy potential on the Western Isles. We also agree with Ofgem that the securing of a Contract for Difference (CfD) in the CfD auction later this year, is a strong indication of the identified onshore wind projects' likelihood to be developed.

We believe that in advance of Ofgem reaching its conclusion of rejecting the 600MW link, the benefits of anticipatory investment to consumers must be fully considered. Network operators' pressure to invest in advance of need is on the back of increasing pressure from generation customers to allow networks to be developed in a timely manner and to deliver a more optimal approach than is currently allowed. This is of particular importance when seeking to be an enabler of government policy, in this instance, the delivery of the Scottish Government's renewable energy target of 50% of all energy to come from renewables by 2030 and the proposal for a 'net zero' emissions target by 2045 as set out in the Climate Change Bill, which is currently under scrutiny in the Scottish Parliament.

Based on our own extensive experience of connecting significant volumes of renewable generation, once assets are constructed and capacity is available, the demand often follows at even higher levels than initially forecast. Such experience should be borne in mind when Ofgem considers the actual risks involved in allowing for anticipatory spend. Particularly in circumstances, such as this project, given that the significant costs of building a second link at a later date will dwarf the cost differential of less than £30m, between the 450MW and 600MW link.

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In respect of the delivery model for this strategic infrastructure project, we cannot agree with Ofgem's decision that this project should be delivered under Ofgem's new Competition Proxy Model (CPM) framework. SPT continues to hold the view that the proposed CPM delivery model is unlawful, unworkable in practice and in no way delivers the stated aim of extending competition across the GB onshore transmission system. Surprisingly, Ofgem has yet to present a standalone CPM policy setting out the details of the CPM mechanism. Instead it has chosen to develop the CPM framework through National Grid Electricity Transmission's (NGET) Hinkley Seabank project, and subsequently Scottish Hydro Electric Transmission's (SHE-T) Orkney, Shetland and Western Isles subsea link projects. There is therefore a lack of understanding as to the scope of the CPM mechanism and how it will interact with the current or future price control frameworks. We also consider that the reopening of the RIIO-T1 price control in this way will undoubtedly damage regulatory certainty and investor confidence.

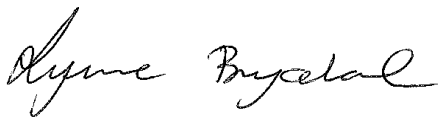
Given that the need for this subsea link is currently driven by development of the two Lewis Wind Power projects, it is fundamentally important that the ongoing work to develop a complete and coherent CPM policy, including the licence conditions to implement it, does not delay SHE-T's timetable for delivery of this project in October 2023. It is also important to investors, generators and communities alike, that the development of this new delivery model does not complicate or delay the delivery plans for strategic transmission infrastructure.

We therefore consider that Ofgem should do what it originally said it would do during RIIO-1 and approve the Western Isles project for delivery under the RIIO Strategic Wider Works (SWW) delivery model. The SWW framework is the mechanism specifically designed to support large scale strategic infrastructure investments, such as this Western Isles project, under the current price control framework.

As per the arguments above, we remain strongly of the view that the Western Isles project should be delivered under the existing RIIO SWW framework. This would allow Ofgem to focus its time and resources on the future RIIO-2 price control, engaging directly with key stakeholders as to how it intends to effectively facilitate true competition across this future framework, balancing the long-term interests of investors and consumers alike.

We continue to reserve all of our rights, including those under the Electricity Act 1989. However, should you have any questions in relation to this response, please do not hesitate to contact me.

Yours sincerely



**Lynne Bryceland**  
**Transmission Policy and Licence Manager**

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**ANNEX**

**Western Isles transmission project: Consultation on Final Needs Case and Delivery Model**  
**SP Transmission's response to consultation questions**

**Q1: Do you agree that the current network on the Western Isles needs reinforcing in order to connect additional generation?**

We understand that the Western Isles are currently connected to mainland Scotland by a 33kV subsea distribution cable to Ardmores on Skye and then onwards along a 132kV single circuit overhead line to Fort Augustus. We also understand that due to the constraints on the existing network, new generation is unable to connect to either the distribution or transmission networks, without new infrastructure between the Western Isles and mainland Scotland.

We would therefore agree that the current network needs to be reinforced, in order to facilitate the economic integration of additional renewable generation located on the Western Isles.

**Q2: What are your views on the generation scenarios developed by SHE-T? We are particularly interested in views on the likelihood of wind generation on the Western Isles developing to the levels predicted by SHE-T's scenarios.**

SPT does not have sufficient knowledge of the specific projects proposed to connect in this region to respond to this question.

**Q3: What are your views on SHE-T's approach to optioneering, specifically relating to the routes and link capacities considered, and are there other options that SHE-T could have considered?**

The proposed transmission connection between the Western Isles and mainland Scotland has been developed by SHE-T over a considerable period of time.

In evaluating alternatives and developing the proposed solution, SHE-T has considered a range of potential reinforcement options, both HVAC and HVDC, as well as a range of reinforcement capacities, consistent with the potential for renewable generation development on the Western Isles.

**Q4: What are your views on the CBA put forward by the ESO, particularly in relation to the results it produces?**

We note that the CBA put forward by the ESO is based on FES 2017 scenarios. Given the forthcoming Contract for Difference (CfD) auction, later this year, which includes remote island wind (RIW), we think that the use of the FES scenarios may now be redundant and should be updated, based on BEIS' commitment to support RIW.

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We understand that the CBA is based on the capex against constraint equation, but equally we do think that this single economic analysis should be more forward looking, supporting the signal for investment that BEIS has given, through its decision to include RIW in the CfD auction later this year.

We do support the view that delivery of this sub-sea link is conditional on generation awards under the CfD auction. However we would also expect this CBA exercise to take into account future CfD auctions which may in turn crystallise the large renewable potential on the Western Isles further, resulting in a regret with respect to under scaled transmission capability. Indeed, we understand that SHE-T has received a number of applications for connection, although we do not have visibility of how these have been taken into account in the determination. Given Ofgem's decision, we acknowledge Ofgem's reservations that the spare network capacity sought by SHE-T, will be utilised in the short term. However, there is no evidence in the consultation document that strongly supports the decision Ofgem has taken, particularly as to how quickly the remaining capacity could be contracted if construction is allowed to proceed.

We note that there is approximately 80MW of generation (mostly onshore wind) already connected on the Western Isles. However, there is no reference in the consultation document as to the potential incremental capacity requirements, should these existing developments be extended or repowered.

We also note that given uncertainty surrounding the generation background, Ofgem considers it is appropriate, at this stage, to make project approval conditional on an appropriate level of generation coming forward. On this basis however, despite Ofgem's arguments, we do not consider it appropriate to assess the project against a generation scenario (the steady state scenario) which involves a lower level of renewable development.

**Q5: What are your views on the technical design and costs of the proposed Western Isles link?**

We would expect SHE-T to be prudent in their costs, derived from credible suppliers and a detailed technical assessment of their offers. Given the volume of projects in which SHE-T are involved in, we would consider that their supply chain management and tender processes will result in efficient costs.

The proposed HVDC link is based on the use of HVDC subsea cable technology, similar to that used on the Caithness - Moray project, which was commissioned in 2018/19. SHE-T is therefore well placed to understand the capability, costs and risks associated with the design, development and delivery of a project of this nature.

**Q6. What are your views on the following points:**

- i. **Do you agree with our minded to position to reject the 600MW link conditional on only the two Lewis Wind Power projects securing CfDs?**
- ii. **What are your views on our analysis of the information, which suggests a 450MW link would represent the best outcome for existing and future consumers if only the two LWP projects secure CfDs?**

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Based on our own extensive experience of connecting significant volumes of renewable generation, once assets are constructed and capacity is available, the demand often follows at even higher levels than initially forecast. Such experience should be borne in mind when Ofgem considers the actual risks involved in allowing for anticipatory spend. Particularly in circumstances, such as this project, given that the significant costs of building a second link at a later date will dwarf the cost differential of less than £30m, between the 450MW and 600MW link.

It should also be borne in mind that constructing greater network capacity than is currently required, can deliver a range of other consumer benefits such as reduced losses and faster facilitation of new demand and generation connections bringing benefits to generators and consumers alike.

**iii. Do you consider that consumers could be appropriately protected from the costs of funding a potentially significantly oversized link if we were to approve the needs case for a 600MW link? If so, how could this be achieved?**

The question centres around potentially oversizing the link, but does not address any issues around potentially undersizing the link too. We believe that the economic analysis does not factor in any long term need or co-ordination of unlocking an area that has significant renewable potential, particularly in light of the Scottish Government's ambitious renewable and climate change targets mentioned above, and that by the process of analysis undertaken, Ofgem is adopting a short term view. The barrier for entry for renewables is the resilience and capability of the network, and it would seem to send out a signal, that is contrary to the facilitation of renewable generation, that there is a fixed limit when the potential for wind and other renewable generation is significant. Indeed we note that BEIS specifically have included RIW in the future CFD auctions so there is recognition of this point.

Industry arrangements are such that consumers will be mitigated from any aborted spend due to the securities required.

**Q7. Do you agree with our assessment of the Western Isles project against the criteria for competition?**

Yes, we agree with Ofgem's assessment that the Western Isles project meets the criteria for competition of new, separable and high value (> £100m capital expenditure).

**Q8. Do you agree with our proposal not to competitively tender the Western Isles project using the SPV model or under our CATO framework unless there are significant delays to the delivery timescales?**

It is important that the introduction of new competition models, does not lead to delays to the delivery of large scale transmission projects. As we set out in our response to Ofgem's September 2018 SPV consultation, we do not consider the SPV model to be lawful, practical or cost effective. We therefore agree that the Western Isles project cannot be delivered under it. Further, as the relevant legislation which Ofgem has said it requires for the CATO model is not in place, the Western Isles project cannot be subjected to this delivery model.

However, it does not follow that the Western Isles project should be delivered under CPM. For the reasons set out in our cover letter, we also consider the CPM delivery model to be unlawful, unworkable in practice and fails to deliver the stated aim of extending competition across the GB onshore transmission system.

**Q9. Do you agree that the Competition Proxy Model would deliver a favourable outcome for consumers relative to the existing SWW delivery arrangements?**

We do not agree that CPM will deliver favourable outcomes for consumers relative to the existing SWW delivery arrangements. As we have repeatedly argued and elaborate in our cover letter, CPM is neither competition nor lawful nor efficient regulation.

We question the proposed £22 - £47m savings to consumers for this project, as a project specific impact assessment and cost benefit analysis has not been undertaken, and consulted upon, for delivery of the Western Isles project under the CPM framework. We continue to be of the view that if Ofgem intends to deliver strategic infrastructure projects, under their new competition models, then a project specific impact assessment and cost benefit analysis should be undertaken, in advance of Ofgem deciding on the 'competition' model to be adopted.

We would ask that Ofgem set out, in further detail, as to how the proposed £22 - £47m consumer savings figures have been derived. We also ask Ofgem to fully address the various concerns with its proposed CPM policy which we and others have raised to date.

**Q10. What are your views on the way in which we have applied project specific updates to the Competition Proxy Model methodology to account for the specific characteristics of the Western Isles project?**

As per our earlier correspondence to Ofgem on CPM, SPT continues to hold the view that the proposed CPM delivery model is unlawful, unworkable in practice and in no way delivers the stated aim of extending competition across the GB onshore transmission system. We consider that the CPM methodology is flawed, in particular as it uses inaccurate and inconsistent cost of capital assumptions.

Whilst we have set out our views on Ofgem's project specific updates to the CPM methodology for the Western Isles project, we note that Ofgem's latest annual update to the "Decision on Interest During Construction (IDC) rates to be applied during 2019-20 to offshore transmission projects and electricity



interconnectors granted the cap and floor regime”, dated 30 May 2019, does not include revised rates for CPM. Our views below are therefore based on the CPM rates which reflect September 2017 market rates, which we consider to be significantly outdated.

#### Benchmark for Cost of Debt during construction

We are not supportive of Ofgem’s decision to use the A-rated iBoxx GBP corporate index as the benchmark for the bottom end of their cost of debt range during construction for the Western Isles project. The utilisation of this index risks understating the cost of debt allowance as it does not adequately reflect the construction risk related to the Western Isles project.

For HSB, Ofgem and CEPA both accepted that the A-rated credit rating assumption for the project under the CPM deliver model would be challenging, and therefore, revised their approach to instead rely on the BBB iBoxx 5-7yr index, as this better reflected the additional risks associated with the project during construction and was supported by precedent (e.g. Thames Tideway Tunnel, PNG and Firmus cost of debt allowance is based on BBB). Ofgem utilise an A-rated benchmark due to their perception that the Western Isles project is exposed to similar technology and construction challenges as those faced by new interconnector links. However it is inconsistent for Ofgem to then assume that the Western Isles project could achieve a higher credit quality than HSB during construction, given Ofgem’s acceptance that the Western Isles project reflects greater capex risk due to their acknowledgement in their beta assessment that the construction of an offshore transmission asset would face additional marine-based construction risks that are not applicable to onshore construction work. In this regard, we consider that the BBB credit rating applied to HSB and comparable projects would be a rational starting point for the Western Isles project.

Additionally, as outlined in more detail below, the omission of allowed cash-flows, during the Western Isles project’s construction, to recover debt cost will negatively affect credit metrics. Thus will have a detrimental effect on the project’s credit profile, further limiting the project being able to achieve an A credit rating.

For the above reasons there is no apparent basis on which Ofgem is proposing to assume a better credit quality for the Western Isles, when compared to HSB. We are therefore of the opinion that it would be more appropriate to assess the cost of debt allowance for the Western Isles with reference to a BBB-rated benchmark only.

#### Benchmark for Cost of Debt during operational period

As in HSB, we are not supportive of Ofgem’s use of the iBoxx corporate non-financial indices with 10+ years maturity as the benchmark for the cost of debt during the operational period for the Western Isles project.

Similar to our concerns for the cost of debt during construction, the A-rated credit rating assumption used by Ofgem for the benchmark for the bottom end of their cost of debt range during the operational period is inconsistent with the 85% gearing assumption used in the bottom end. It is contentious to assume that a highly leveraged financial structure, like that proposed by Ofgem for the operational period, has the ability to achieve an A rating given the rating methodologies applied by credit rating

agencies such as Moody's<sup>1</sup>. On the other hand a notional gearing assumption of around 60%, which is in line with the corporate financed onshore TOs, is consistent with an A/BBB rating assumption. Secondly, as highlighted by NERA<sup>2</sup>, when selecting a benchmark index for the cost of debt, the average remaining tenor of the constituent bonds should match the length of the operational phase period, which is also the expected tenor at issuance for the CPM. The 10+ years iBoxx has a remaining maturity of around 21 years, which is shorter than the length of the operational period of 25 years. The correct index in this case would be the 15+ years iBoxx index as it has a remaining maturity of around 26 years which more closely matches the length of the operational period of 25 years.

For the above reasons, we are of the opinion that it would, amongst other things, be more appropriate to assess the cost of debt allowance for the Western Isles during the operational period with reference to the A/BBB 15+ years iBoxx index.

#### Uplift to the Beta

Although we recognise Ofgem's inclusion of an uplift to the upper end of the asset beta for the Western Isles project, relative to HSB, as this decision recognises the project's exposure to additional specific risks associated with marine-based construction, we find that the approach employed by Ofgem to determine the uplift for the Western Isles is unsuitable for the asset in question.

The rationale for the uplift on the high end of the CPM construction asset beta is the recognition that the specific challenges during construction in a marine environment are not faced by the representative onshore construction and engineering comparators used in the CPM asset beta estimation. Ofgem consider that the uplift applied to OFTO and interconnectors, relative to HSB, is consistent with the Western Isles project. The scale of this uplift is determined by CEPA on a purely qualitative basis through a relative risk assessment during the construction phase between CPM and the two offshore transmission regimes.

We believe that Ofgem's arbitrary uplift is based on an inherently subjective risk analysis between the various transmission regimes and the inclusion of this premium to account for marine construction risk has not been evidenced enough by CEPA to align with actual experience and that a different, more objective approach should instead be adopted for the Western Isles. CEPA even acknowledge in their "Review of Cost of Capital Ranges for New Assets for Ofgem's Networks Division" July 2018 report that if future offshore assets were to proceed under CPM, the analysis on setting the asset risk may need to be reviewed.<sup>3</sup> We therefore recommend that Ofgem reconsider their commitment to this approach and examine alternative approaches<sup>4</sup> that lead to greater objectivity in determining the risk differentiation between transmission regimes in order to ensure that the project specific risks associated with the Western Isles are adequately compensated for. Most obviously, it will be important to recognise that all OFTOs to date have taken on already built assets and therefore

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<sup>1</sup> According to Moody's rating methodology, Baa rated utilities should have a gearing of 60-75% and A rated utilities of 45-60%, far below Ofgem's assumed 85%, or indeed 80%, gearing assumption for the operational period. See: Moody's (March 2017), Regulated Electric and Gas Networks, Rating Methodology, p.19.

<sup>2</sup> NERA (2018), Review of Ofgem proposed WACC for Competition Proxy Model of delivering new onshore capacity investments: A report for SHET plc and SPT plc.

<sup>3</sup> CEPA, 2018, report to Ofgem, "Review of Cost of Capital Ranges for new assets for Ofgem's Networks Division", Footnote 45



carry no construction risk. Additionally, as highlighted in our response of March 2018 response to Ofgem's minded to decision for Hinkley Seabank we find that the lower bound of the range of the asset beta is understated due to the reliance on evidence from energy network companies. CEPA's evidence for the lower bound of the HSB asset beta range was based on the estimates from allowed asset beta for Scottish TOs at the RIIO-T1 price decision.

#### Revenue during construction

We are not supportive of Ofgem's decision on the removal of the allowance for revenues during the construction phase to recover debt cost of the Western Isles project as its removal could impact on the financeability of the project on a standalone basis. The lack of interventions to reduce cash-flow limitations during construction could affect SHE-T's capacity to service the debt raised upfront and hence would limit the ability of achieving credit metrics that would ensure a stable investment grade credit rating, thereby increasing financing costs of the project and ultimately costs to consumers.

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