

Office of Gas and Electricity Markets (Ofgem)

FAO: Thomas Johns
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Canary Wharf
London E14 4P

23 June 2021

Dear Tom

Consultation on the Eastern HVDC (EHVDC) project's Initial Needs Case (INC) and initial thinking on its suitability for competition

We are pleased to enclose a response from SSEN Transmission¹ (SSENT) to Ofgem's consultation on the EHVDC project's INC and initial thinking on its suitability for competition.

We welcome Ofgem's recognition of the clear consumer benefit in the EHVDC project progressing. We would also like to thank Ofgem for its transparent and constructive engagement so far on the EHVDC project and its INC assessment.

We have enclosed responses to the questions in your consultation at Appendix 1 and highlight the following key points:

- We note that Ofgem expect to receive an updated CBA from the TOs (based on up to date information) as part of the Final Needs Case (FNC) submission. We confirm that this is our intention and have included further details below on the contents of the updated CBA.
- We note that Ofgem intend to consider whether any additional evidence has come to light from the Offshore Transmission Network Review (OTNR) that should be considered as part of its FNC assessment. We are mindful of the interaction of the OTNR with the EHVDC links and welcome Ofgem's focus on ensuring a coordinated approach is maintained.
- It is key that price control mechanisms are used to allow network companies to prepare for and deliver Net Zero at lowest cost to the consumer, while maintaining world-class levels of system reliability. The overall path to Net Zero may remain uncertain but the need for the EHVDC project is now well established. Having as much certainty as possible within the regulatory mechanisms will let SSENT and other stakeholders help support delivery of this project and the others that we intend to bring forward. As acknowledged by Ofgem, this is particularly important for this project as a single year delay in delivering the EHVDC links could cause consumer detriment via constraint costs of £665m per annum.
- This is one of first projects that SSENT is putting through the LOTI mechanism of the RIIO-T2 price control. We have used lessons learned from past SWW submissions to inform our approach to LOTI. However, we recognise Ofgem's comments in the consultation document on

¹ References to SSEN Transmission encompass the licenced entity Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461.

improvements which could be made to our approach. As a key stakeholder involved in delivery of Net Zero, we recognise that it is incumbent upon all parties to work together in an efficient manner to achieve expedient outcomes. We will take on board Ofgem's guidance to improve future submissions made under the price control.

- We note that the consultation document states that a decision on major planning consents for EHVDC "is expected to take place by the end of 2022." Please note that this activity is due to take place in mid-2022.
- We recognise Ofgem's position that approval of an FNC may only be provided after the licensee has secured all material planning consents. Ofgem is aware that it is not uncommon for approval of planning consents to take a significant period of time, potentially even several years. In order to help protect project delivery timescales (and guard against the risk of £665m annual detriment to consumers) we would ask Ofgem to be as flexible as possible in this space. Ofgem has made verbal commitments to the TOs (as part of bilateral engagement during EHVDC) that it would accept submission of the EHVDC FNC in advance of receipt of planning consents. We would ask Ofgem to also remain open to providing a conditional outcome on its FNC assessment *prior* to TOs being in receipt of planning consents. This would help significantly in mitigating any potential delays to the overall LOTI process from the interaction of planning consents and FNC assessment. We are open to working with Ofgem to explore how such a decision on the FNC could be accommodated within the LOTI mechanism process, in advance of material planning consent award.
- We note from engagement with Ofgem that there may be an expectation upon licensees that they start construction ahead of completion of the Project Assessment (PA). We oppose this expectation for licensees to construct at risk (i.e. spending significant values whilst uncertainty remains as to final financial settlement is for a LOTI project) without appropriate protections in place. RIIO-T2 is the most stretching price control, with the lowest cost of capital to date, and an ambitious ongoing efficiency challenge. We do not think it is appropriate or financeable for TOs to bear this additional risk.

Ofgem should formally acknowledge that building at risk may be unfinanceable and requires network companies to bear significant risk (e.g. through the requirement to award contracts without full knowledge of available project funding). We therefore request that Ofgem make all PA decisions ahead of the elapse of contract price guarantee period, and ahead of contract award to preferred bidders. Alternatively, we request Ofgem to accept the cost as set by the competitively tendered market price. Where contracts can only be awarded to one source – a single supplier – then (provided the TO demonstrates it has taken reasonable steps to mitigate the costs/risk of the single source) Ofgem must also commit to accepting the cost as awarded if it is not in a position to make a decision ahead of contract award.

We trust that our comments in this document are clear but please do not hesitate to contact us if you have any questions or comments about our feedback.

Yours sincerely

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Appendix 1 – Responses to Ofgem Questions on EHVDC

EASTERN HVDC LINKS INC ASSESSMENT

3.1 - Do you agree that meeting the technical requirement with the two proposed HVDC links is appropriate?

It is SSENT's position that meeting the technical requirement with the two proposed HVDC links is appropriate. The optioneering, INC CBA and the annual NOA have demonstrated consistently that the proposed two HVDC links are most effective for addressing the requirement to increase transfer capability across multiple network boundaries over a large geographical area. The TOs are progressing with onshore network reinforcements that have been demonstrated to supplement these links and also continue to assess both HVAC and HVDC options that can support Net Zero ambitions.

In our experience, offshore options reduce planning consent risk and delivery timescales (when compared to onshore options). Comprehensive and strategic optioneering has concluded that any potential alternative onshore options (or combination of options), cannot deliver comparable constraint relief in the timescales that can be achieved by the links. It has been demonstrated through the NG ESO CBA that the timing of these network reinforcements is critical to delivering consumer benefit, with a single year delay resulting in constraint costs of up to £665m per annum.

As Ofgem is aware from our INC submission and subsequent bilateral engagement, the TOs have undertaken in depth analysis over a number of years supported by third parties to arrive at our proposals. Successive rounds of design and study led us to the proposals put forward. As recognised in the Ofgem consultation, our analysis has shown that HVDC options become more economic over longer distances and therefore can be more effective than onshore AC options at addressing the requirement for increased capability across a large geographical area. Moreover, offshore options reduce planning consent risk and delivery timescales (when compared to onshore options).

We are now in the process of further testing the technical solutions put forward by updating the CBA (which supports this LOTI submission) to account for more up to date inputs. Sensitivity analysis is being undertaken for the FNC CBA to determine that the benefit of these HVDC links is robust against variation in capacity. The constructed link capacity will be contingent on the deliverability risk and market readiness.

3.2 - Do you agree with our initial conclusions on the cost benefit assessment and the appropriateness of the options taken forward?

We agree with Ofgem's initial conclusions on the CBA and the appropriateness of the options taken forward. The links taken forward are appropriate on the basis that: they have been demonstrated to deliver consumer benefit in the CBA; the links have been consistently recommended by NOA; and, the regret associated with deferring network investment outweighs the benefit of selecting the optimal combination. Furthermore, the southern landing points on the East coast of England that are not utilised by the first two HVDC links from Scotland will continue to be assessed for future network reinforcement and offshore wind. The FNC CBA will assess the performance of the links in combination with the proposed future network investments being recommended by NOA.

An INC CBA covering this many boundaries and geographical area requires significant resource and coordination across the three TOs and ESO. The annual cycle of the Electricity Ten Year Statement (ETYS), Future Energy Scenarios (FES) and Network Options Assessment (NOA) will always present the challenge of more up to date information being available on INC submission for a project of this scale. The FES are used to plan network investment against an uncertain future. However, in 2018, the shift from the following year's FES was significant with increased levels of generation being introduced to meet the Net Zero challenge. This further strengthens the need for the HVDC links and NOA was identified as the means to determine the optimal combination of HVDC links.

We note that Ofgem state that the INC submission had a lack of critical justification for Earliest In Service Dates (EISDs) and narrowing down of options excluded before the CBA. We have provided further evidence to Ofgem on the basis of our EISDs and we trust that that has gone some way to alleviating any concerns the regulator may have had around the EISDs. The FNC scope has always included the refresh of the CBA using the most up to date FES available on commencement. This will include the options assessed in the INC, with the EISDs as they currently stand and updated cost information. The FNC CBA will include timing sensitivities to quantify delay and assess the impact of delay on optimal option combinations. We believe this will provide further comfort for the TOs, ESO and Ofgem that we continue to deliver the correct first options for the GB consumer.

We note that Ofgem say in its consultation that "the EISDs for a number of shortlisted options have moved back since the LOTI CBA was carried out. The TOs state that is primarily a result of not progressing the development of options that did not receive a proceed signal under NOA, i.e. it would now take longer to build those options than originally estimated." However, please note that this is not strictly accurate for all options - it is not that they would take longer to build than originally estimated but simply that the build programme has moved out a year due to the lack of a NOA proceed signal. (There are some options would take longer to build due to further onshore complexities.)

It is incumbent upon us that we highlight that by definition EISDs are not the target dates for energisation but are better understood as a best endeavour target i.e. a view of the best outcome possible at the time of testing. It is on this basis entirely possible and correct that they may move as development progresses and further information is uncovered. However, the current position of our development on both links does not indicate any movement from INC EISDs. We are confident, through intelligence and evidence gathering, that we will be able to apply the information available to us today to put forward the right option to Ofgem for need and cost approval.

3.3 - Do you agree that on the balance evidence including CBA, recent FES and NOA documentation, that these investments appear low regret?

We agree that on the balance evidence including CBA, recent FES and NOA documentation, that these investments appear low regret. The links have been assessed against a large envelope of potential generation/demand scenarios (FES 2017, 18, 19 and 20) and have been demonstrated to deliver a positive Net Present Value for consumers of between £10.9bn and £18.4bn, when assessed against a FES with lower generation outturn.

Economic analysis, completed by the ESO through its Network Options Assessment (NOA), has consistently shown strengthening signals demonstrating the need for significant investment across multiple northern transmission boundaries of the GB network. There is no longer a credible future energy scenario that would result in these links being regretted.

Onshore alternatives have been included in the assessment of network reinforcement pathways and for the most part have been recommended to proceed in combination with the EHVDC links. Onshore network reinforcement options by their nature cross fewer network boundaries and have later EISDs than the links.

Furthermore, the recent NOA analysis has indicated that further constraint relief is required across these network boundaries that are crossed by EHVDC and has recommended a second Eastern HVDC link from the North of Scotland to England. This future growth will be included in the FNC CBA to demonstrate that these EHVDC links are not regretted when further investment is completed.

3.4 - Are there any additional factors that we should consider as part of our Initial Needs Case assessment?

We reiterate the message that the TOs require as much certainty as possible on each of the various factors under consideration (optioneering, delivery model etc) in order to protect (i) project delivery timelines, (ii) consumers from detriment; and, (iii) progress to Net Zero. This will also help mitigate risks associated with, for example, market capacity and set us up for an optimal response to our procurement Prior Information Notice (PIN). In addition to the equipment supply market, uncertainty provides the opportunity for challenge and adds risk to the land acquisition, local planning and consenting process that could potentially lead to delay. We will work hard to protect project timelines whatever the outcome of the INC consultation. However, any uncertainty represents a direct risk to that programme

For example, a key risk area is supply chain confidence. Initial joint-TO discussions have been held with the HVDC supply chain as part of the Contracting Strategy development for both links. These confirmed that any of the factors currently under consideration (as per above) could provide significant uncertainty for the associated tendering activities (including detrimental effects on PIN robustness/clarity). This lack of certainty is further compounded for the project by supply chain acknowledgement of exacerbated capacity constraint issues (both cable and converter). Other EU TO's have sought to avoid these constraints by creating more certainty around their own projects, for instance by letting early development contracts (and securing early manufacturing reservations slots) with all key cable suppliers.

A PIN process can be initiated in a scenario where the INC assessment does not contain definitive answers on e.g. delivery model. However, this significantly weakens our proposition compared to other competitor projects which are more defined and certain. Whilst supply chain response levels cannot be entirely foreseen, cable and converter suppliers have alluded to necessary project prioritisation based on perceived certainty around the opportunity to secure the works. Those that do not fit the criteria could run the risk of de-prioritisation or even non-participation.

DELIVERY MODEL CONSIDERATIONS

4.1 - Do you agree with our proposal to make a final decision on delivery model at the FNC?

SSENT's strong preference would have been for Ofgem to make a final decision on the delivery model at the INC stage (as would be consistent with Ofgem's current LOTI guidance.)

As noted above, the TOs require as much certainty as possible at the earliest opportunity. We note that the consultation states "... we consider that any delay resulting from the application of the CATO model

on EHVDC would not be in the interests of consumers. Having said this, we do not consider that it is appropriate at this point in time to rule out the use of the CATO model for the EHVDC project." We submit that this is a contradiction in terms. If Ofgem think imposition of CATO would not be in the interests of consumers, it is our view that it makes sense to rule this out now. The benefits of running such a tender (including timescales) has not been demonstrated whereas the risks of delay are well known (i.e. £665m per annum in increased constraint costs for the GB consumer). We would welcome further analysis from Ofgem (including timescales and an assessment of benefits specific to EHVDC) to confirm whether or not this is the case, noting that roles/responsibilities including tender models and dates are still not set out in detail for late competition.

Paragraph 4.19 of the consultation document states that *"based on the delivery plan that has been provided by the TOs, we do not consider that any evidence has been provided by the TOs to demonstrate that there is likely to be any consumer detriment that would result from reaching a final decision on competition during the FNC stage."* In addition to the consumer detriment associated with delaying the project, we would also refer Ofgem to the representations made above on the need for as much certainty as possible in order to garner an optimal response from market to our procurement process (and thereby protect project delivery timelines).

Ofgem does not set out a view on CPM (reserved for FNC) – we will comment on this in more detail at that time. However, we continue to reiterate the point (made previously to Ofgem in response to RIIO-FDs) that CPM is an undeveloped financing approach with many unresolved issues. Indeed, it was for this reason that Ofgem removed CPM from the final RIIO-T2 licence. In the absence of further development work on CPM, we submit that it should not be considered for application to EHVDC.

We agree with Ofgem's view on SPV and not progressing work in light of CATO.

4.2 - Do you consider there is likely to be any quantifiable consumer detriment if we defer our decision on competition until the FNC?

It is difficult to accurately quantify the detrimental impact on consumers as a result of Ofgem deferring a decision on competition until the FNC. However, it is our strong view that there is clear and quantifiable detriment to consumers from application of competition to the project. In relation to Ofgem's other competitive models, Ofgem state² that a tender process can vary from 12 to 18 months in total. We note a single year delay in delivering the EHVDC links could cause consumer detriment via constraint costs of £665m per annum.

Using Ofgem's tender process within the current Offshore Transmission Owner (OFTO) regime as benchmark timescales, the imposition of late competition could result in over £900m in further constraint costs to GB consumer. The above figures assume that during a competitive tender period, the

² "Under the current tender model, there is a lengthy period, typically 18 months, between the submission of the ITT bid and financial close." - [Decision on developments to the tender process within the current OFTO regime, p.20](#)

"We consider 12-15 months to be an appropriate end-to-end tender length, depending on the nature of the assets to be tendered." - [Extending competition in electricity transmission: commercial and regulatory framework for SPV model, p. 52](#)

project is effectively brought to a standstill until a successful bidder is appointed to undertake construction whilst consumers continue to be exposed to constraint costs.

It is also worth noting that Ofgem's OFTO regime is generally recognised as a 'very late' competitive model (i.e. transferring an already constructed asset to the party responsible for operation and maintenance). We would therefore assume it to be highly likely that a 'late' tender model, once established, would be inherently more complex than OFTO tendering and would likely take longer to complete than the 18 month benchmark stated above, potentially leading to a further increase in the constraint costs to GB consumers during this period.