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8th September 2021

Dear Rebecca

TI response to “Changes intended to bring about greater coordination in the development of offshore energy networks”

Transmission Investment, as one of the UK’s leading independent transmission companies manages one of the largest offshore electricity transmission portfolios. Our managed portfolio of Offshore Transmission Owner (OFTO) assets includes the connections to eight offshore wind farms, and we will take over management of a further two offshore wind connections in 2021 – in total a portfolio of approximately 3GW and over £2.5bn in capital employed. We are one of the largest managers of offshore wind transmission in GB, which is the largest offshore wind market in the world.

Transmission Investment is also a strong advocate of introducing competition into the delivery of onshore transmission and we continue to support the development of the required arrangements *inter alia* through industry groups, responding to consultations such as these and providing evidence to parliament.

Transmission Investment is leading, in partnership with the French national grid company RTE, the development of a proposed 1400MW HVDC interconnector between France and Britain via Alderney (“the FAB interconnector project”). This project was granted cap & floor regulatory treatment in 2015 and whilst it continues to experience Brexit related delays, it will commence construction as soon as the regulatory process allows. Transmission Investment is also in the early stages of developing a 700MW HVDC interconnector between Scotland and Northern Ireland (“the LirIC interconnector”).

We welcome the opportunity to provide our views on the Offshore Network Coordination consultation. We provide answers to your direct questions in the appendix attached to this letter.

If you would like to discuss any of the points raised in this response, please do not hesitate to contact me directly.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'James Dickson', with a stylized, cursive script.

James Dickson
Project Development Director

Appendix

OFGEM CONSULTATION: Changes intended to bring about greater coordination in the development of offshore energy networks

Response deadline: 8 September 2021

Early Opportunities questions

Question 1: Are there any concepts we have not identified developers (as defined in this chapter) may wish to progress?

Non-electric co-ordination does not seem to have been considered – common cable corridors, aligned construction times etc. There is already a built example of this. EA3 (HVDC) shares the same cable corridor as EA1 (AC). The ducts have been installed for EA3 ready for the cabling to be pulled through. Common corridors seem a very sensible easy win for reducing repeated onshore disruption to the same onshore site.

OWF projects that are connected to non-GB OWF projects (i.e. no transmission connection to GB) have not been considered. This may be unlikely but is feasible. (e.g. Shetland Power-to-X OWF connects into Norwegian energy system?)

Question 2: Should anticipatory investment risk be shared with consumers? If it should, what level of risk is it appropriate for consumers to bear?

Yes – it should be structured so as to incentivise the developer to embrace co-ordination. To date that has not happened and with good reasons. These reasons need to be overcome either via a ‘carrot’ from amendments to the regulatory environment, or via a ‘stick’ where planning/regulatory/legal impediments are put in place to ensure co-ordination. The chapter seems to be written as if there is no obligation, but an incentive on developers which is not there. Being clear on what the alternative is for developers in this case is therefore crucial and the consumer, as the key beneficiaries of the co-ordination, should be prepared to match the counterfactual situation to ‘hold the developer whole’ against that scenario.

Para 2.25 discusses the impact of AI associated with co-ordination. This is correct; however co-ordination also brings additional development risks over and above those associated with AI and these should be acknowledged if they are to be overcome.

Para 2.36 introduces the concept of highly anticipatory investment. A small point, but as TCE/CES have control over future OWF projects through their seabed leasing, to what degree will Ofgem and BEIS be requiring they set out their plans in advance of their standard

practise to date that would give greater visibility on the likelihood of additional OWF projects in certain zones of the seabed.

In respect of Figure 10, we believe the approach that best matches the current approach, and is simple, and reduces conflicts of interest between competing parties, is for there not to be a requirement for a commercial relationship between developer 1 and developer 2. The simplest solution would be for the successful OFTO in the developer 1 OFTO tender to purchase all of the OFTO assets developed by developer 1 at the Final Transfer Value of these assets. The OFTO would then recover its tender revenue stream based on this FTV from the ESO. The ESO in turn would recover the OFTO tender revenue stream from TNUOS charges paid by developer 1, developer 2 (or recovered under financial security provided by developer 2 if it didn't progress its project to consumers) and from other users of the transmission system.

This would avoid developer 1 having a commercial relationship with developer 2, developer 1 needing to take the credit risk of developer 2 and avoids further complication when considering different regulatory overlays on the market environment such as the application of the Cap and Floor regime to the contributions to be made by developers 1 and 2.

In general, we would consider arrangements to be preferable under which developers do not need to contract with each other, give the issues that arise, but any co-ordination occurs contractually via the ESO. This is important as developers need to be isolated from risks that they cannot control. Projects will not be delivered unless lender risks are properly understood.

Para 2.44 is unclear or incomplete in terms of the definition of what the exact counterfactual is that is being proposed. It would be useful for this to be more clearly set out and coherent (e.g. Is the benefit (avoided cost) of meeting Net Zero included in the coordinated solution with AI versus the alternative?)

Question 3: For concepts that intended to provide a wider system benefit, e.g. by mitigating an onshore constraint, how should the need for investment be demonstrated by the developer?

Assuming the AI is of a significant size, a detailed needs case should be prepared as it is for all LOTI projects. Smaller size projects could perhaps have a lighter touch requirement.

Para 2.16 suggests the onus is upon developers to demonstrate the need to the wider system for the additional investment required for co-ordination and that this may need

verification through the NOA. This is placing less, not more incentive on developers to introduce co-ordination into their in-flight projects.

In reality, we think that developers would not be in a position to make the needs case for such a reinforcement as they neither have the experienced staff nor access to the data, models and tools needed to produce such a needs case. Instead, the ESO should lead on this as part of its overall responsibility for the High-level Network Design (HND).

Para 2.33 and 2.34 recognise that amendments to the way AI is treated is needed. However timing and certainty is key to confidence in progressing co-ordination through development projects. Consequently, Ofgem's statement that *"Developers will require certainty on how any AI will be treated before making a final investment decision for projects that involve coordination."* is not strong enough and does not recognise that this would be required at the project origination stage and not at the end of the development phase of projects.

Developers would require staged approval, initially for the pre-construction works necessary to develop the AI, and then for the construction costs. This mirrors what happens onshore with TOs getting approval for development costs ahead of final approval for the construction costs. The risk that future approvals for construction costs being rejected needs to be clearly set out and limited to guard against projects based upon coordination having to return to the pre-development stage because the AI upon which the project concept depends is withdrawn.

Para 2.35 discusses the coordination aspiration and the expectations placed upon offshore infrastructure developers. The section however does not set out how the onshore planning and development process is being aligned in conjunction with this. The onshore network (along with associated 'bootstraps' offshore) needs to equally be more coordinated itself, as well as aligned to accommodate the offshore infrastructure.

Question 4: What options are available to developers in demonstrating a reasonable expectation they intend to connect to the system?

Developers should be liable for termination liabilities, calculated in a fair and transparent manner, in the event that they don't connect to the system, and they should provide financial securities, calculated in a fair and transparent manner, in respect of those termination liabilities. This is already an integral part of the Construction Agreement/Connection Agreement process between a developer and the ESO, and should be readily adaptable to include liability and security for AI. It would though mean that AI in respect of a later developer (developer 2) can only be partially underwritten by developer 2 if it has an agreement with the ESO. This would either need to be a pre-condition of

approval for the AI or it be accepted that the AI could proceed, with greater consumer underwriting instead, and without any underwriting from the prospective (i.e. without a connection agreement) developer 2.

It is important, and has been a recent failure of the overall OWF framework, that OWF developers, communities and environmental custodians are briefed, consulted and satisfied with the transmission solution (along with the certainty of delivery thereof) at the outset of the project.

Question 5: To what extent do you agree with our proposals to remove barriers to the Early Opportunity concepts? Please explain your answer.

We welcome the developments that Ofgem are making in this area. However, in order to have the intended outcome, our expectation is that more will be required and that the measures set out herein will not in themselves have the impact required to overcome the pre-existing situation. Greater incentive and certainty are required up front, and the consumers will be the long-term beneficiaries thereof.

In respect of Figure 10, we agree that these are the funds that developer 1 should receive at the conclusion of the tender. As noted above, we would expect that developer 1 would receive all of these monies from the successful OFTO. .

Question 6: Do you believe a Significant Code Review is required to give effect to a potential decision to 'share' AI risk between consumers and developers?

Para 2.45 sets out that in order to implement AI, Ofgem would need to amend the Interconnector Cost Assessment Guidance. One assumes that the inference is that the AI would be incorporated within the eligible costs to feed into the calculation to set the Cap and Floor levels. This would not be an appropriate treatment of AI costs. Ofgem should consider if the cross-border capacity is not increasing as a result of the AI, then these AI costs should rather be underwritten by consumers (i.e. 100% cost recovery for the developer with a set return) rather than being included within the floor. Interconnectors are not incentivised to invest in additional capital cost under the Cap and Floor regime unless their projected revenues significantly exceed the cap throughout the regime life. This is very rarely the case in practise and the risk of projected vs outturn revenues are usually such that interconnector developers would not be incentivised to include AI into their project if the AI costs was only going to be added into the Cap and Floor regime. Finally, once again timing of Ofgem approval is crucial. Para 2.54 suggests Ofgem would only approve AI costs at the Final Project Assessment (FPA) stage. Clear indications as to what a developer could expect should

be provided by Ofgem at the Initial Project Assessment (IPA) should Ofgem wish developers to bring projects forward that include any AI.

Paras 2.56 to 2.60 discuss the potential requirement for changes to industry codes. Many discussions have rightly been held in the industry to date with respect to the single largest loss and this will be assessed. Less discussion seems to have been had on the redundancy and availability standards that should be guiding any other code amendments. It may be worth Ofgem providing their guidance on this. Once again, we would caution against leaving the onus upon developers to propose and secure code modifications to enable coordination, where they are not suitably incentivised to do so. Consequently we welcome para 2.65 setting out that Ofgem expect the ESO to take the lead on this. ESO should be encouraged to ensure that they do not hold up any projects due to the limited time to accomplish this.

Question 7: Do you agree with Ofgem’s proposed approach to deliver the objectives of Early Opportunities workstream?

Overall, we have a concern that the Ofgem proposals place too much onus upon the developers who are not sufficiently incentivised to take the additional risk to adopt a coordinated approach within the timeframes available.

We are also concerned that Ofgem clarifies that OFTOs should only be receiving revenues from the ESO and should not be exposed to credit or performance risk of developers.

The GB generation map should be available publicly, as it contains only public domain information (as stated in para 3.14) and would be useful to many stakeholders. It is not clear whether this is intended to be the case or not as para 3.15 states it will be provided to the ESO, TOs, Ofgem and BEIS.

Pathway to 2030 questions

Question 8: We consider that a holistic design will result in a more coordinated, economic and efficient network. Do you agree? Please give reasons for your answer.

Yes – however the issues faced currently are due to the fact that it is being kicked off considerably later than it should have. The holistic design should have been kicked off once TCE and CES announced their plan to open seabed leasing rounds in 2018 and as part of the Offshore Wind Sector Deal (Mar2019). Consequently projects have and are emerging that have an incentive to develop swiftly but have no longer a framework in place to follow to secure their vital early-stage development certainty on grid connection.

This situation is not consistent with the Terms of Reference for the Central Design Group (CDG) which *“do not change or replace the existing legislative or regulatory obligations which TOs must take into consideration when developing Infrastructure”* (para 3.18).

In addition, the differentiation between projects falling into ‘Early Opportunities’ or ‘Pathway to 2030’ is vague and marginal which is exacerbated by the potential impact on their treatment under this programme from ‘opt-in’ to ‘coordinated by default’.

We would welcome the ability of developers and transmission companies to feed into the HND and for visibility to be provided as to the inputs used, the options and configurations assessed, the methodology employed, and most importantly how the set of results are balanced against the respective Network Design Objectives (para 3.19) to reach a recommendation for each connection. As the HND will most likely be required to support any project configuration put forward to planning and consenting processes, this reference will need to be robust and not brought into question mid-development. Clarity on the HND standing and legal framework within which it operates is therefore critical.

Question 9: Do you agree with the planned work for a detailed network design offshore?

Yes – the challenge will be delivering it within the timeframes required for the Round 4 and ScotWind projects. It should also be clear what elements are subject to change from the HND in the DND phase, in particular limiting those areas that may be depended upon by the developers furthering the development of their projects based upon the HND. It is not clear if and when an update to the HND may be undertaken and if this may have a bearing on previous conclusions.

Question 10: Who do you believe is best placed to undertake the detailed design for assets that are in offshore waters?

We think that greater clarity could be given on what the output requirement is for the detailed network design – The Terms of Reference for the Central Design Group (Part C) notes that (onshore) it *“should be at a level of detail that allows licensees to proceed with the delivery of Network Assets, such as the pre-consenting development phase and detailed technical studies”*. We assume that the DND provides the information required for the consenting activity and the procurement activity, but does not include these activities. We understand that greater definition of this role will be provided in due course and we would welcome further clarity from Ofgem on this.

The party best placed to deliver the detailed design for offshore assets depends on the delivery model for those assets.

For example:

	Delivery Model	Detailed Design
Radial, single user	Generator Build or OFTO Build	Generator or OFTO
Non-radial or multi-user	Early Competition	OFTO
	Late Competition	ESO or other third party

We do not consider that TOs are well placed to carry out detailed design offshore unless they are precluded from tendering for the delivery of these assets.

Question 11: Do you agree that the existing developer led model should be retained and applied where the HND indicates a radial solution should be used? Please explain your answer.

In general, we agree that the existing developer led model should be retained and applied where the HND indicates a single user radial solution should be used. It will be important to also set out under what circumstances the HND can change (if any), for example potentially turning a radial into a meshed design, and what the consequences would be of such changes.

Question 12: Please provide your views on each of the delivery options we have described in this document. In providing your views, please comment on the issues we have raised. Please also give your views on the implementation issues we have raised.

Our views of each model are summarised briefly below:

Model 1 – TOs are not experienced in offshore network delivery, no TO has constructed an OSP. TO delivery would be expensive and would not necessarily save time. The track record of TO delivery of boot-straps does not appear to have been successful noting the consenting, construction and commissioning challenges of Western Link. TOs also have no experience of operating offshore wind transmission connections, whereas there has been significant experience built up by OFTOs. As an aside, please note that in para 3.64 Ofgem state that *“To date, no OFTO has managed the development or construction of offshore assets.”* It should be noted that Transmission Investment staff have experience and capability in both OFTO operation and interconnector development (offshore assets).

Model 2 – similar issues as Model 1, slightly better only in that it allows for competition in the financing and operation at the operational stage. In our view the TO would need to be precluded from bidding.

Model 3 – As noted above we do not consider that the TO is the best party for this as they generally do not have any more experience than say interconnector developers and could be conflicted, particularly if they are allowed to bid to deliver the assets. In our view the DND and pre-construction should be done by a suitably resourced ESO, a third party, or Options 4 or 5 should be used. We could see this as an acceptable option if the TO was precluded from bidding to deliver the assets.

Model 4 – See our comments on Model 3 in respect of the TO role in the DND. We also consider that the ESO or a third party could carry out the pre-consenting, or the relevant offshore generator, and thereby allow a late OFTO tender model to be used.

Model 5 – We support this option subject to a suitable early competition OFTO tender model being in place.

Model 6 – Only suitable for single user radial connections.

We note the timing of the HND to be produced by the end of January 2022, however it seems there are a number of potential follow-on consultations and amendments that may be required to deliver the Pathway to 2030 projects, most notably with respect to treatment of AI, Delivery Model, Significant Code Review (para 3.75) and the potential MITS definition change (para 3.77). In addition, it is not clear what ‘standing’ the HND has and its ability to overrule the pre-existing connection framework. All these are crucial issues to the early stages of project development, and so the timing and impact of these on the projects they seek to support should be carefully considered.

Question 13: Please describe any feasible delivery options that we have not set out in this document.

Our view is that it is important that a suitably incentivised, resourced and non-conflicted party, does the DND and pre-construction to allow a successful Late OFTO Tender process to run. What should be avoided is the TO conducting the DND, and pre-construction and then taking part in the late tender to deliver the assets as this conflict and discriminatory structure would destroy any benefit that the competitive process seeks to achieve.

MPI questions

Question 14: Do you think we are focusing on the right models at this stage, or are there other models we should be considering? Is it also necessary to consider the evolution of

such MPIs from pre-existing assets? Ultimately, should Ofgem accommodate multiple MPI models (eg IC-led and OFTO-led) or just one? What factors influence your answer?

We have set out some views on MPIs in Ofgem's recent consultation on the Interconnector Policy Review (IPR) WS4. The primary focus of our response was seeking clarity on the definition of the asset classes involved within the broader MPI topic and the market arrangements that they will subject to.

It is important to consider the pre-existing circumstances, sequencing and timing when assessing the treatment of an MPI. Pre-existing assets may require different treatment in terms of impact from those being brought forward at the same time as part of a broader scheme in development. It is not clear to what degree Ofgem wish for MPIs to be 'opt-in' or 'coordination by default' and this would also influence the appropriate regulatory treatment.

Ofgem set out (para 4.1) that it will lead on changes to facilitate MPIs near term and BEIS will lead for an enduring MPI regime. It would be useful to define the envisaged timeframes for this.

Ofgem and BEIS have extensively engaged with neighbouring countries (para 4.17) to determine key barriers for MPI projects. As set out in our IPR WS4 response, market, legal and regulatory treatment on the non-GB side of the interconnector is as important, and therefore we would encourage Ofgem in due course to set out its expectations for these and how its proposals may complement and align with those of our neighbours.

We note the section on Market Arrangements and the reference to the themes drawn out from the EU Offshore Renewable Energy Strategy report (para 4.86). It appears that only once there is clarity on these areas, in alignment with our cross-border partners, would it be sensible to draw any meaningful conclusions on the future treatment of MPIs.

Ideally, a single MPI regime should be brought forward that has the flexibility to accommodate all 'routes' to being classed as an MPI, be that IC-led or OFTO-led and also accommodate the possible scenarios associated with timeframes at which projects evolve to become multi-purpose.

Question 15: Do you agree with this position with regard to ownership structures of MPIs under the current framework?

We agree with this assessment. We would note that the single ownership of a number of separately licenced transmission entities, be they OFTOs or interconnectors is feasible under the existing framework, and that the key issue is the separation of generation and transmission licenced activities.

Generation owners should not have ownership of operational coordinated transmission assets due to the inherent conflict of interest this poses.

Question 16: What are the commercial, operational and regulatory factors that would drive a developers preference for either the OFTO-led or IC-led MPI model? and do you envisage a different usage of the component assets of an MPI depending on the MPI model?

As set out above, ideally there would only be one model which would lead to the same result irrespective of the genus of the assets. We would expect that a single MPI model with sufficient flexibility to accommodate this would need to be designed based upon the market arrangements and legal framework that will underpin the operation of the assets.

Question 17: How would the line to shore (L1) be used in practice and what would you consider to be the primary and secondary activities from a practical perspective? Please provide views for both the IC-led and OFTO-led models, highlighting any differences between L1 usages across the two models.

As above, until the market arrangements are settled upon, the appropriate treatment for this is unclear.

Question 18: Are there any barriers within the current frameworks, such as definitions within the CUSC, SQSS or other industry codes, that might prevent the line to shore (L1) being classified as either an OFTO or an interconnector while undertaking other secondary activities?

As above, until the market arrangements are settled upon, the appropriate treatment for this is unclear.

Question 19: What are your views on the feasibility of adopting a regime that requires developers to submit evidence to support their licence application (for assets that form part of an MPI) and commit to regular performance reports? Would this be practicable, proportionate, and effective? Are there other options that work well for industry that we could explore further?

Paras 4.44 to 4.47 set out possible monitoring of MPIs “to allow Ofgem to monitor the ongoing usage of assets to ensure that the licence issued remains appropriate over time, and to take action if the usage evolved beyond the purposes envisaged when the licence was granted”. We view this as developers needing to take regulatory change risk that is outside of their control and effectively reduces what is a bankable long-term regulatory regime to one that is subject to continuous re-affirmation. The concern here, is that developers will

not be able to take Final Investment Decisions (FID) or raise alternate forms of finance for these projects with this large open-ended discretion being afforded to Ofgem.

Question 20: What are your views on the practicality of transposing obligations from one licence into another, which obligations would be the most important to incorporate into a remaining licence?

As above, until the market arrangements are settled upon, the appropriate treatment for this is unclear.

Question 21: Do you think the exemption provision with the Act offers any solutions to licencing MPIs within the current framework, even if only a temporary solution until a potential enduring solution is implemented?

It is not clear to what degree this would be appropriate or necessary from the example given. This would need to be considered in light of the delivery model, the respective regulatory treatments of the different asset classes, be they developer-led or not and the third party access rights that should be applied to them to encourage an open market and to avoid anti-competitive practises. It would not be appropriate for OWF developers to build interconnectors from their generation projects and then be able to operate them thereafter.

Question 22: Are there any aspects of the priority dispatch and curtailment arrangements, the TCA, or the cross-border trading arrangements that are adopted in UK that might influence the choice of MPI models?

As above, until the market arrangements are settled upon, the appropriate treatment for this is unclear. We concur that explicit cross border trading arrangements would become less efficient with the introduction of multiple offshore bidding zones.

As previously set out in the answer to Question 6, regarding the Cap and Floor suitability for MPIs this would need careful consideration and depend on the underpinning market arrangements, definition of the assets under the Cap and Floor, and the sequencing of the overall set of assets.

BEIS Question 1: What do you consider to be the key challenges to the establishment and operation of MPIs in the UK presented by current and proposed regulatory requirements applicable in EU Member States or other countries which MPI projects may connect with, or by the TCA? (eg regarding the efficient operation of MPIs under both the Home Market and Offshore Bidding Zone approaches). Are there further domestic challenges to these possible market design options

The market arrangements are fundamental and the foundation stone of the regulatory arrangements that should overlay this to establish a robust investible business case to deliver these projects. The majority of the cross-border neighbours to the GB electricity market are in the European Union. The EU, their member states, national regulatory authorities and Transmission System Operators (TSOs) have been and continue to seek solutions to these problems. The expectation is that their solution will not be arrived at by what is put in place in Great Britain. Alignment of arrangements on both sides of the MP is imperative and inherent in the nature of cross-border projects.

It seems logical therefore, that GB arrangements are only put in place once there is clarity on the arrangements and legal framework to be implemented in our neighbouring territories.

Consequently, it seems premature to opine on domestic solutions at this stage.

{End}