

22 November 2021

National Grid ESO response to Ofgem's consultation on minded-to decision for an application for an Electricity Transmission Licence for Mersey Reactive Power Limited for the operation of a shunt reactor

Dear Sir/Madam,

We welcome the opportunity to respond to your consultation on your minded-to decision for an application for an Electricity Transmission Licence for Mersey Reactive Power Limited (MRPL) for the operation of a shunt reactor.

National Grid ESO is the electricity system operator for Great Britain. We move electricity around the country second by second to ensure that the right amount of electricity is where it's needed, when it's needed – always keeping supply and demand in perfect balance. As Great Britain transitions towards a low-carbon future, our mission is to enable the sustainable transformation of the energy system and ensure the delivery of reliable, affordable energy for all consumers.

The ESO holds a unique position at the heart of the nation's energy system. We use our unique perspective and independent position to facilitate market-based solutions which deliver value for consumers in the most economic manner whilst ensuring the operation of the system in the most safe and secure way. Our strategic ambitions include encouraging and enabling competition everywhere. The Pathfinders are a prime example of this ambition: an innovative programme creating new markets for the provision of stability, voltage support and constraint management.

Through the Pathfinders initiative, market participants offer voltage and stability solutions using assets that would have traditionally been owned by the incumbent transmission owners, the aim being to encourage innovation, competition and reduce costs to the end consumer. This creates a challenge on how to ensure a level playing field. One key area is how to classify these assets and the activities within the existing code and licensing frameworks. We recognise that this is a novel challenge and that Ofgem is working to identify a potential short term solution that works within the current frameworks. However, we would like to offer our specific thoughts and raise some considerations on the resulting impacts of the regulatory framework model as proposed.

Key points of our response:

- It is not clear from the consultation why the activity of operating a shunt reactor constitutes "participating in transmission" for the purposes of the Electricity Act. Given the potential for further uncertainty, ambiguity, and potential knock on impacts of taking such a broad interpretation of the activity of transmission, we would invite Ofgem to provide clarity on its interpretation and reasoning.
- Under the proposal as it stands it is not clear that the Transmission Owner (TO) would be obliged to adhere to any rules around safety requirements or technical requirements and standards. The proposals exclude requirements to adhere to the STC and Transmission Owners don't have obligations through the CUSC (and the Grid Code).
- The consultation envisages that relevant technical obligations will be provided for in the commercial arrangements with the ESO. This would raise a number of concerns.
 - The commercial arrangements currently comprise of a commercial agreement covering the provision of services and the Bilateral Connection Agreement under CUSC (incorporating the Grid Code). If the CUSC arrangements, which apply these and the arrangements for the connection, are not to apply, and as above they don't provide for connection by a Transmission Owner, then additional commercial arrangements will need to be put in place.

- In such additional commercial arrangements, it could be seen that the ESO is unilaterally determining the rules that this type of Transmission Owner has to operate by.
- If only applied commercially, any breach would be of a commercial contract with the ESO rather than being a breach of a licence. It would be left for the ESO to enforce, and without any obligation to do so.
- It is not clear, without obligations in the transmission licence, that the Transmission Owner has to agree to these additional commercial arrangements.
- It is not clear what the proposal means for the existing arrangements. The current commercial agreement relating to the Pathfinders project is conditional upon a Bilateral Agreement being in place. It is also unclear how the necessary “interface” with the Transmission Owner they are connecting to will be contractually managed.
- Finally, if our understanding of the proposal is correct, this would imply that any similar reactor technologies that are currently bidding into the Voltage Pennines tender where the assets are solely to provide such services would be required to apply for a transmission licence as well. This would exacerbate the above-mentioned challenges and further expose gaps in the proposal, such as how this type of TO would interface with the existing network and under what arrangements these TOs would connect their systems to the existing NETS.

Our responses to the consultation questions are included in the appendix below.

Should you require further information, or clarity on any of the points outlined, then please contact Rob Smith in the first instance at robert.smith4@nationalgrideso.com.

Our response is not confidential.

Yours sincerely,

Matthew Wright

Head of Strategy and Regulation, National Grid ESO

Appendix 1 – Consultation Question Responses

Question 1: Do you agree with our minded-to position to grant the ET Licence in this case?

Interpretation of the Electricity Act

Ofgem does not explain in detail why it views these activities as “transmission” for purposes of the Electricity Act 1989 (“the Act”). We would be keen to understand Ofgem’s views on how the activities that MRPL will be undertaking align with the definition within the Act. The concern is how this might then need to be applied in a range of scenarios where there is potential for operators of assets to consider that they are “participating in transmission” almost incidentally through the assets that they own and the services that they provide.

We acknowledge that, if considered as a transmission system, the nature of the asset (being a single component), is such that consideration of the standard licence conditions to be applied is appropriate. The limited number of standard licence conditions it is proposed to apply and be performed here, makes it hard to recognise the activity undertaken as being transmission as intended under the Act.

Obligations to ensure system security

Given that they would not be required to be party to the STC, the proposal as it stands would mean that the Transmission Owner would not be obliged to adhere to any rules around safety requirements or technical requirements and standards through its transmission licence. These are obligations that generally apply to transmission assets forming part of the National Electricity Transmission System. The CUSC and Grid Code and the Bilateral Agreements under these set out these arrangements as they apply to parties connecting to, but not being part of, the National Electricity Transmission System.

The proposal envisages that the commercial agreement between MRPL and ESO will “include appropriate service standards, obligations, access requirements and network requirements”. This is the case through the combination of the commercial service agreement and CUSC arrangements today but would need to be replicated in the commercial arrangements if not through the transmission Licence or CUSC. These, and the other protections given through the STC, for example limitation on liability, are also important considerations for the other transmission owners to whom this plant will be connected and it is not clear how these interface considerations could be easily managed in arrangements between the ESO and MRPL.

We have not yet worked through the exact scope of technical requirements that would need to be applied to MRPL but, at the highest level these would include but would not be limited to the following:

- Operational and emergency switching requirements
- Provision of operational instruction facilities
- Safety requirements including evidence that the plant is designed for the purpose for which it is intended, is safe and maintained to an appropriate standard
- Data exchange for operational, planning, and modelling purposes including outage and plant availability information and operational diagrams
- Operational Metering and monitoring data including alarms and event management
- Site responsibility schedules and safety coordination
- Compliance with technical requirements to ensure the continued robustness of the Transmission System including but not limited to compliance with the SQSS, voltage limits, frequency limits etc
- Commissioning requirements including co-ordination of protection to maintain system integrity.

Mechanisms to ensure the correct technical standards

The Electricity Network Codes underpin the interactions of market participants and regulated parties on the GB transmission system to create transparency, fairness, proportionality, and cost efficiency for end consumers. Allowing parties to operate outside of the codes does not align with the principles of our licence: operating the system in a safe, secure, and economic manner.

As the asset providing the service is connected to the transmission system, the ESO ancillary service contracts are constructed on the basis that the party has connection agreement under the CUSC and therefore is captured by the relevant requirements under CUSC and Grid Code.

The proposal is to grant a transmission licence that excludes SLC D2 (Requires a party to adhere to the STC). This means the shunt reactor is not being captured by the technical and security standards of the STC, but it is not clear how they are otherwise captured if not to be a party to CUSC. This creates significant concerns over the safety and security of the network, especially if this status is likely to be given to further similar assets if a precedent is set that assets exclusively providing system security services fall under the classification of transmission.

In the scenario that MRPL are granted the proposed licence without acceding to the requirements of the STC and CUSC does not apply, we have to ensure they are tied into the relevant requirements to ensure system security and safety is maintained and ensure that we, the ESO can discharge our own Licence conditions.

The consultation envisages that relevant technical obligations will be provided for in the commercial arrangements with the ESO. This would raise a number of concerns.

- The commercial arrangements currently comprise of a commercial agreement covering the provision of services and the Bilateral Connection Agreement under CUSC (incorporating the Grid Code). If the CUSC arrangements, which apply these and the arrangements for the connection, are not to apply, and as above they don't provide for connection by a Transmission Owner, then additional commercial arrangements will need to be put in place.
- In such additional commercial arrangements, it could be seen that the ESO is unilaterally determining the rules that this type of Transmission Owner has to operate by.
- If only applied commercially, any breach would be of a commercial contract with the ESO rather than being a breach of a licence. It would be left for the ESO to enforce, and without any obligation to do so.
- It is not clear, without obligations in the transmission licence, that the Transmission Owner has to agree to these additional commercial arrangements.
- It is not clear what the proposal means for the existing arrangements. The current commercial agreement relating to the Pathfinders project is conditional upon a Bilateral Agreement being in place. It is also unclear how the necessary "interface" with the Transmission Owner they are connecting to will be contractually managed.

Alternative options

We believe there are three main alternatives to the option Ofgem have proposed

- 1) **Include relevant technical provisions from the STC in MRPL's transmission licence.** This would mean the relevant technical obligations are in place although other considerations raised in this response may still need to be resolved.
- 2) **Continue to treat MRPL as demand pending broader review.** We are unconvinced that the Electricity Act clearly determines that a shunt reactor falls under the definition of Transmission. Ofgem have announced in their letter "[Review of the regulatory framework for ancillary service assets and clarification on our short-term treatment of synchronous condensers](#)" on 20 October their intention to conduct a regulatory review to determine if current licensing for ancillary service assets introduced through Pathfinders is appropriate. We intend to support Ofgem's review and help identify a suitable long-term solution. In the short-term until such review has concluded we propose MRPL to continue being treated as a demand user. This would mitigate the potential for unintended consequences, such as other Pathfinder participants providing a transmission service through for example synchronous condensers applying for a TO licence using the same argument.
- 3) **Create new STC category – "TO Lite".** An alternative solution may be to create a new 'Transmission Owner Lite' user category through the STC, which would allow appropriate requirements defined in the STC to be applied in a transparent and enforceable manner. While we are conscious of the time and effort associated with this option (given it would need to follow the STC modification process and governance arrangements) it has the advantage of being closer to the usual approach than putting requirements into a bespoke bilateral agreement.

Question 2: Do you have any views on the SLCs we propose to include in the licence?

Excluding SLC D2 creates an entity that isn't governed by the electricity network codes. Our concerns on this concept are captured under the response to Question 1.

If the technical and system requirements that would otherwise be provided for under the Transmission Licence/being a party to the STC are to be provided for in the commercial arrangements we would propose that a special licence condition acknowledging this and requiring the licensee to enter into this additional/adapted agreement is included in the transmission licence.

Question 3: What are your views on the geographical and time limitations we have proposed to include in the licence?

We support the minimum application to the service term and that there is flexibility within the revocation terms and that the licence should have a specific geographic remit. We support time limitations for the licence, insofar as this should be tied to the anticipated timescales for developing solutions to incorporate this type of service provision into regulatory frameworks.

Question 4: Do you have any views on any additional limitations that should apply?

We do not have any comments on this question.

Question 5: What impacts on existing and future consumers, if any, do you anticipate from granting a restricted ET Licence in this and similar instances?

If this licence is granted in this and similar instances, then the energy that the provider would previously have been responsible for procuring would as be socialised as system losses, as TO energy usage is treated as part of losses. This cost would be passed on to end consumers via their energy bills.

If such a licence is granted it is imperative that there is clarity on the framework going forwards. Given that Pathfinder projects run via competitive tenders, bidders need to fully understand the framework that applies to them so that they can properly cost their bids and we can fairly assess them to determine the best solution. If clarity is not provided there's a risk of inefficient tender outcomes, and delays to solution delivery which may negatively impact on consumers through increased cost and system security concerns.

Question 6: Do you agree that granting an ET Licence in the proposed manner for the case of MRPL (and potential future similar cases) is unlikely to result in any significant risk to consumers' interests?

We are concerned with the unintended consequences likely to be set by this precedent. The rationale provided to grant MRPL a transmission licence is: "...the shunt reactor will be constructed solely to provide the reactive power absorption service that is necessary for the correct operation of the transmission system and MRPL will thereby be participating in the transmission of electricity". We envisage that this rationale could apply to most shunt reactors bidding into Pathfinder tenders. It will need to be considered whether it also applies to other technology types providing reactive and other ancillary services to the ESO. Whilst Ofgem note that this is a short-term solution, we are concerned that in the short term multiple other parties will be obliged to follow these arrangements and therefore our concerns about system security, and safety and unintended consequences increases. The approach is also less transparent to new market participants if it requires bilateral agreements outside the codes.

If these types of parties are successful in being granted a transmission licence, it is then not clear how such a party would then be able to have a connection agreement, given that that party would by definition already be part of the NETS.

In this particular instance the participant already has a bilateral connection agreement signed under its current guise of a demand connection to the NETS. The status of that connection agreement is unclear if the provider morphs into a Transmission Owner.

This proposal will have implications for further Voltage, and potentially Stability, Pathfinders we currently have in train. In particular how to treat them if they apply for connection under the CUSC, given the proposal

designates them as a Transmission Owner. We cannot enter into a Connection Agreement with an existing TO. If TOs are the only parties that can operate a shunt reactor, it is unclear what rules and regulations govern how they can connect their assets to the NETS.

We are concerned that this precedent may disincentivise these types of providers from entering into Pathfinder Tender events and the impact this would have on Tender liquidity and consequential impact on consumer value.