

System Services
Future Arrangements
High Level Design Consultation
SEM-21-069

Moyle Interconnector Limited Response

INTRODUCTION

Moyle Interconnector ('Moyle') has been a provider of system services for many years under the HAS and DS3 regimes. As a large HVDC interconnector, tripartite arrangements with SONI and NGEESO have facilitated inter-TSO cooperation to deliver significant quantities of frequency response to both system operators.

Moyle has invested in improved delivery of system services and a major control system upgrade, to be delivered in mid-2022, includes significant changes in control philosophy in order to improve delivery against the needs which the TSOs have described in the DS3 system services arrangements.

Future System Services matters greatly to society as system services will make an increasingly vital contribution to meeting the RES-E targets for 2030 and beyond. The design of the Future System Services – both the services themselves and the procurement approach – is of critical importance. While the RAs' proposals on the high level design of the new arrangements are welcome, and direction can be set by the high level design decisions, only when the detailed design is considered will it be possible to determine whether whole design will deliver satisfactory outcomes.

Further, the TSOs' requirements for system services to 2030 have not yet been clearly set out. While it is possible to gather some information from sources including, for example, Tomorrow's Energy Scenarios, the Transmission Development Plan for Northern Ireland and the SysFlex deliverable 2.4, a clear plan of TSO needs is necessary alongside the market design, in order that system services market participants might position themselves for investment in delivery.

Given the priority attached by governments and the TSOs to 2030 RES-E targets, early publication of system needs and procurement plans are important. During the workshops on this consultation we heard that the TSOs have such a plan. That plan should be shared with industry so that industry can prepare investment.

Below, we respond to the specific questions posed in the consultation.

SPECIFIC QUESTIONS

INTRODUCTION

Question 1: Do stakeholders consider that the commitment to putting these arrangements in place on an enduring basis, at least to 2030, represents sufficient certainty of process?

Yes, we agree that enduring arrangements are needed. But the commitment must be supported by detailed arrangements. The high level design on its own will not ensure delivery of arrangements which satisfy the RAs' objectives and assessment criteria, and without sight of the detailed arrangements industry will not have the confidence to invest.

GOVERNANCE ARRANGEMENTS

Question 2: What are stakeholders views on the options and recommendations presented for qualification/registration? Are there further options that may be considered?

Moyle agrees that option 2, a rolling application process, is most satisfactory, as reflected in experiences of units during COVID.

Question 3: What are stakeholders views on the proposed formalisation of the QTP?

Moyle participated in an early QTP project for provision of FFR from HVDC interconnectors and we note that the QTP appears generally to have worked satisfactorily.

In the future there should be no need for an extensive trial design phase in the new arrangements. If a unit type or technology wishes to be recognised as proven, then criteria should already exist as part of the system services product specification against which demonstration is sought. The QTPs could also be accelerated where possible – many months of trial may be excessive to demonstrate that a technology which is already 'proven' and delivering elsewhere can deliver in the SEM also.

Further, as the energy transition accelerates new technologies will come online. Noting that the QTP has been used to prove not just new types of unit but also new communications methods, it might be necessary to call for QTP projects more often than once a year. Perhaps a call for QTP proposals every six months would be appropriate.

Question 4: What are stakeholders views in terms of the introduction of a single System Services Code?

Question 5: What are stakeholders views on the options in terms of governance of rules changes?

It has been clear for some years that the present contractual structure is in need of reform. In the DS3 system services arrangements the framework contract relies heavily on the protocol, which is subject to change. There was consultation on the contracts and there is consultation on protocol revisions.

Then there are further documents which are referenced in the contract and protocol to various extents: the measurement device standards, the signals requirements, the test specifications, the

signal lists, and the FFR performance assessment methodology. These supplementary documents have been published in a less organised way and have not always been subject to consultation.

For example, the FFR performance assessment methodology is a critical part of the structure for providers of FFR, yet it took years to be published and was not, even then and despite the requests of service providers, incorporated into the protocol document. (We are not sure it is even published on the TSOs' websites today.)

What providers appear in general to support in the future arrangements is a single point of reference for the governing arrangements and the ability for participants to propose changes. Moyle very much supports the introduction of a single 'code' for these purposes.

We note the concerns of the TSOs that a code with the form and governance such as the Trading and Settlement Code, Capacity Market Code and Grid Codes might not be wholly appropriate or workable. Further, a code of that type could make participation of the interconnectors, which can typically provide significant quantities of system services, rather difficult. That is because of the tripartite (interconnector owner – SONI/EirGrid – NGESE) arrangements that govern interconnector participation in system services provision.

Rather, we prefer that the system services 'code' is effectively a consolidated set of terms and conditions that apply to procurement of system services, where 'procurement' includes the product definitions, qualification, purchase, performance monitoring and settlement. This might be one document with multiple chapters, or divided across multiple documents, as long as the content is the complete information required for participation and the updates are openly consulted on and subject to regulatory approval.

Alongside consultation on TSO-proposed changes, providers and the RAs should all be able to propose improvements. (Historically, some provider-proposed changes have simply been dismissed as out of scope in a TSOs' consultation on specific aspects.) The role of the RAs is, of course, critical in requiring improvements to deficiencies that might have been identified (by the TSOs or participants). When approving (or rejecting) changes, the RAs should naturally take full account of the assessments of the TSOs, but also the effect on long term investment signals that the changes might introduce.

Yet, we also acknowledge that it is the role of the TSOs (and the DSOs, depending on the emergent design) to set out their proposals for system services procurement.

Question 6: Do stakeholders have views on the potential to amalgamate different Panel meetings?

We are not certain that a 'code' structure is required, suggesting a more effective structure (than DS3) and open consultation process – see above.

Should the RAs direct a 'code' structure, we consider the best opportunity for efficiency would be to meet alongside the grid code meetings. Our reasoning is that much of the system services technical matter is more aligned with grid code than the trading and capacity market codes. Indeed the framework contract already refers to the grid code for some product definitions, for example. Given the jurisdictional nature of the grid codes this might require further thought.

In any arrangement, the system services code should remain distinct from the trading and capacity codes.

Question 7: What are stakeholders views on the funding arrangement proposals?

Moyle does not offer a strong view on the options for funding the future system services, noting that the Trading Period Supplier Based Charge, while reducing annual volatility in charges, will increase short term volatility.

However, we also note a potentially perverse outcome: Assuming there is a greater need for system services when SNSP is higher, charging suppliers more for system services in these periods is, while cost-reflective, on its own effectively incentivising demand when generation is more carbon-intensive. The potential for this unintended effect should perhaps be considered in more detail alongside the energy market design – a whole system approach.

Question 8: What level of involvement should the DSO/DNO have in the governance process?

Question 9: How should the interactions with distribution connected parties be governed?

Moyle offers no remarks on DSO/DNO matters.

Question 10: Are there any further considerations for the High Level Design of the Governance Arrangements?

Moyle offers no further remarks on governance.

AUCTION DESIGN

Question 11: What are stakeholders views on the Auction Design options and SEMC Recommendation?

As an interconnector unit, Moyle is mindful that cross border trading takes place not just in the day ahead auction but in two intra-day auctions and then through SO coordinated third party trades and SO-SO trades. (We assume here that cross-border DAM arrangements are in place.)

The pre-DAM option is not preferred for an interconnector unit because the interconnector would theoretically need to reserve cross-border transmission capacity for frequency response. While this might be in the interests of consumers, depending on the values of transmission and response, it would remove liquidity from the cross-border DAM.

The post-DAM option would allow an interconnector unit to make its full transmission capacity available in the DAM, with remaining capacity for response entered into the daily system services auction. To ensure that response capacity which was successful in the system services auction remains available for delivery of response, intraday trading limits might be required after the system services auction results are known.

In either pre-DAM or post-DAM option it is not clear that locational issues are efficiently addressed for market participants, as the system becomes increasingly constrained and the TSOs take increasing quantities of BM actions.

The ex-post solution seems like it has potential to deliver the best overall outcome, since it considers the real time capabilities of all units, including interconnectors, after TSO actions for constraints have been taken. Interconnectors would not need to limit capacity in any of the cross border energy auctions. This solution would also take account of post-DAM/IDA SO coordinated third party trades and SO-SO trades, rather as it takes account of BM actions in general.

However, should the ex-post solution present significant challenges in delivery of the ex-post option, we prefer the post-DAM option, in line with the RA's proposal.

Question 12: Are there any further considerations in terms of the Auction Design options?

Moyle offers no further remarks on auction design.

MARKET DESIGN

Question 13: What information is required to get a full view of the volumes requirements for System Services?

We would expect that the starting point is the TSOs' assessments of the system services scarcities to 2030. While closer to real time the TSOs will need to know the required quantities of each system service in each trading period, further ahead estimates will be required at suitable granularity. For example, the half-hourly anticipated needs for tomorrow might be estimated today based on the weather forecast and day ahead energy market results. Looking to next year, the requirement might vary with season and might be based on the (anticipated) commissioned fleet, the outage programme and models of high and low wind and temperature, with a different need on a windy summer night compared to a high demand winter day, for example.

In this way the TSOs might identify longer term scarcities that stimulate investment in new capabilities.

The TSOs' forecasts of volumes requirements, and the methodologies used to deliver them, should be published. We note the absence of any indicative quantities from the TSOs at this point.

Question 14: What are stakeholders views on the development of Secondary Trading of System Services?

Moyle acknowledges that secondary trading of system services obligations could have value in both long term and short term layers of procurement – long term, to maximise the possibility of delivery if commissioning of a new unit is delayed, and short term (in the pre-DAM and post-DAM options) to trade in order to balance energy and system services market positions or to manage outages, as examples.

That said, the experience of capacity market obligation secondary trading in SEM is that systems development can be a limiting factor. Therefore, arrangements for future system services should not rely on secondary trading tools that might not be delivered.

Question 15: What are stakeholders views on the proposals regarding Commitment Obligations and Scalars?

Obligations for both reliability and performance are reasonable in principle, to incentivise delivery of both.

On the performance scalar in particular, our experience during the DS3 system service arrangements is that the present model has room for improvement. For example, a unit armed for FFR might respond as expected except for a tiny under-delivery at a single 20 ms data point. While this is one data point out of five hundred for a ten second product, the unit's response would be assessed as a fail. If that was the only FFR activation for the month the unit would effectively lose FFR revenue for three months. This is grossly disproportionate. For the SOR and TOR products average delivery is assessed and the TSOs have proposed moving to an average assessment for POR also. The approach for fast services should be similarly based on overall delivery of the product.

In measuring the reliability of a unit's delivery, the TSOs' balancing market actions need to be taken into account so that a unit which obtained both system services and energy positions is not penalised if the TSO moves the unit, rather akin to the balancing market arrangements for energy.

Question 16: Do Stakeholders have views on the introduction of the concept of Firm Access to the System Services market?

Moyle offers no further remarks on firm access.

Question 17: Do stakeholders have views on layered procurement of System Services? What approach could be taken to support this?

We agree with the SEM Committee's view that a mix of both short term and long term procurement will be required – short term where a sufficient quantity of the required service is expected to be available, after outages and weather variabilities; long term where the TSOs may not prudently rely on day ahead availability from existing units and an investment signal is required to ensure delivery of a new service or an increased quantity.

There may be a role for medium-term contracts also, depending on the TSOs' roadmap of the required services and quantities to 2030. These might be used where there are constraints on competition due to locational requirements, for example.

The key input to this decision is the TSOs' roadmap of requirements.

Question 18: Are there any further considerations in terms of Market Design?

We seek early clarity on the suite of system services to be procured in the future system services regime and the required quantities to 2030. While some insight can be gleaned from various reports (e.g. Tomorrow's Energy Scenarios, the Transmission Development Plan for Northern Ireland and the SysFlex deliverable 2.4), specific information on the TSOs' plans will give confidence to participants as they plan new investments.

In addition, we encourage the RAs to consider system services that do not form part of the DS3 system services portfolio and which may have significant value on the road to 2030. An example might be response to high frequency, which is today delivered by Moyle but without reward or incentive for either availability or delivery.

Further, we are aware that TSOs in other jurisdictions are procuring services that allow them to secure their systems in new ways. For example, NGEESO is procuring a post-fault congestion management service, the 'B6 Congestion Management Pathfinder', which promises to reduce curtailment beyond a transmission system constraint more cost-effectively than a network build solution. Again, Moyle provides an equivalent service to SONI, for the benefit of consumers by avoiding redispatch to secure for loss of the N-S interconnector, but without reward or incentive for either availability or delivery. Without continued investment by Moyle in this service its delivery cannot be assured, yet there is today no tangible incentive to do so.