
Integrated Single Electricity Market

System Services Future Arrangements Scoping Paper SEM-20-044

Consultation Response from



October 2020

Context and Thrust

Bord na Móna (BnM) welcomes the opportunity to respond to this consultation which could have far reaching and perhaps unintended implications towards achieving Ireland's Decarbonisation Policy targets. BnM, in alignment with the EAI recognises that best outcomes will come from having more of a focus on efficient decarbonisation outcomes in priority to over-focusing, at this stage, on the method of procurement of energy services.

BnM is fully cognisant of the scale of delivery towards Decarbonisation, with the NEAP in Ireland targeting an increase in RES-E to 70% by 2030, indicating an investment in the order of at least 3.5GW of offshore wind, 1.5GW of Grid Scale Solar, and increasing onshore wind to 8.2GW.

In this context, BnM fully appreciates the need to put Decarbonisation front and centre when considering the future plans for DS3 arrangements and that the Decarbonisation implementation trajectory should have a key bearing on the path towards the Future of DS3.

It is worth highlighting the successful delivery of the DS3 programme to date and the key role played by the support of Industry. The consultation and RA/SO presentations highlight, also to their credit, that Ireland has already achieved World beating high levels of SNSP, currently operating up to 65% SNSP¹.

Going forward, BnM recommends that the expectations of the RAs regarding the positive role to be played by Industry need to be mindful of a) the scale of the decarbonisation agenda b) the scale of works required within the Distribution networks in particular, and c) the key importance of investor certainty.

Given the high level of energy services provided via the Distribution networks it is essential to factor in the scale of pre-works required to allow the Distribution network to contribute effectively towards a market based, transparent and non-discriminatory Ancillary Services delivery platform, fit to be aligned with that of the Transmission network. Hand in hand with the scale of the works is the associated time to complete these required works, which it is understood will be extensive. The DSOs made it clear in their presentations that until these works are completed economically inefficient results would ensue.

In this regard, we note that the SOs have some comfort from the provisions within the existing Regulated Arrangements contracts for 2 x 18-month contract extensions. Until such time as mechanisms allow a properly functioning market, which will yield value to the consumer, there is a clear need for a transitional solution by extending existing arrangements.

Security of supply is always a primary consideration, and one which we believe is mutually interlinked with the delivery of Investor Certainty. It is essential to recognise the changing dynamic between Energy, Capacity and DS3 revenues, both in terms of the increasing importance of DS3 revenues as well as the mutual interdependence between the three revenue streams in avoiding 'missing money'. Any redesign will need to be considered holistically, given the increased DS3 interaction with the Energy and Capacity markets. Untoward outcomes from changes in DS3 revenue provisions could potentially give rise to risk of unintended disorderly exit and system scarcity.

It is critically important that market conditions support the Investor Case; without this there is no chance of realising Ireland's ambitious decarbonisation targets. However, many of the proposals increase investor risk – be it market risk or regulatory risk. There are many issues such as lack of transparency in service requirements and TSO interventions relating to constraints, and other issues which could arise which signal increased risk to the investor. There is insufficient information at this stage on which to make balanced comment on investor risk, with significant more work required.

It is also clear that a comprehensive industry inclusive process is needed to fully understand the key requirements for investor certainty. The 'minded to' position within the SOs presentation from Workshop 1 gives rise to the concern that the service provider might not be remunerated, even while supplying services, and having services available. As referred to within our response, we firmly believe that the

¹ Soon to increase to 70% and higher

service provider must be remunerated for provision of the 'availability' of a service. In this regard we note the stated aims of the solutions to be market based, transparent and non-discriminatory.

Furthermore, designing enduring future arrangements fit for purpose will likely require considerable time and significant industry input. Robust testing of systems and of processes must be complete before going live.

1 SUMMARY OF CONSULTATION QUESTIONS

CONSULTATION QUESTIONS

1) Are there additional requirements in EU legislation or national policy that should be considered as key guidance for the project?

The key guidance with regard to national policy would be to ensure that its implementation is:-

- a) fair
- b) that whatever plans it gives effect to are achievable, and
- c) are fully aligned with/in fact are driven by the Decarbonisation agenda as captured within National Policy

Regarding fairness, the 'minded to' position within the SOs presentation from Workshop 1 gave rise to the concern that the service provider might not be remunerated, even while supplying services, and having services available.

BnM believes that the service provider must be remunerated for provision of the 'availability' of a service, most especially i) when this 'availability' is a Grid Code requirement and ii) where other Technology providers may not share this same requirement.

We believe that the basic tenet of Offer, Acceptance and Consideration, within contract law would support this position.

Secondly, any redesign of System Services should be considered holistically given its interaction with energy and capacity markets and should not give rise to a missing money problem. In considering options for future arrangements for system service, the impact and interaction with other market elements and their commitments is key, for instance, the Impact of changes to DS3 arrangements on the ability of a T-4 RO holder's ability to deliver capacity. There are already commitments from thermal plants on an expected remuneration from DS3 services on the calculation of the missing money element and therefore the bidding behaviour on the Capacity auctions. Apart from consideration of the Investor, there is the threat to system security from a disorderly exit.

Regarding EU legislation & National policy, and 'achievability', we believe that the onus is firmly on the State to lead with plans within National Policy which reflect the ability to achieve delivery of Decarbonisation targets and associated plans.

Industry has demonstrably worked with the Authorities since the inception of DS3 to help deliver World beating high levels of intermittent renewables and will clearly continue to do so.

Achieving an effective and efficient path towards Decarbonisation, subject to energy supply security, should be the most important requirement, while embracing that the system services solution is required to be on a path to being market based, while being transparent & non-discriminatory.

2) What should the role of DSOs be in development of the new arrangements?

It is abundantly clear that the role of the DSOs is absolutely pivotal to the successful implementation of EU legislation. Effective implementation of the requirements as set out in the CEP and EGBL rely totally on the effective alignment of both the Distribution and Transmission networks. Presentations within the first 'Future of DS3' Workshop provided useful relevant statistics:

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- i) Currently 35% of service providers in Ireland and 60% of service providers in Northern Ireland are distribution connected (ESBN)
 - ii) 93% of Renewable Generation in Northern Ireland is connected to the Distribution network

The DSO presentations in Workshop 1 made it clear that they themselves recognise the key importance of their participation and are keen to play a key role in the project delivery.

What is also clear is that there is a very significant body of work required to bring the Distribution Network, its connection points, controls, metering, etc, all up to the required levels. ESNB referred to the scale of the works required and that 'in 2021 – 2025 alone, there will be >40,000 locations where investment will be absolutely necessary'. Ultimately the source of many Ancillary Services will be embedded in the homes of Ireland, via the Distribution network, and the network needs significant investment & resourcing in preparation for this.

3) Should any further assessment criteria be included in this workstream?

BnM proposes two additional assessment criteria.

There needs to be explicit recognition of the Decarbonisation agenda as the primary National Policy objective, and BnM recommends that alignment with the Decarbonisation pathway should be added to the assessment criteria. While there is reference to CEP and EBGL compliance, there needs to be recognition that future plans and mechanism within DS3 need to fit in with the path towards decarbonisation, and must not delay or impede it in any way.

Among the seven assessment criteria listed by SEMC within the Consultation there is a very notable omission of any reference to the investor and 'investor certainty'. For clarity, by the term 'investor' we mean to include both existing, as well as new assets.

It is clear from the consultation that many of the proposals being considered, and some of the measures likely to be adopted, will increase the project risk profile to the investor, be it resulting from market risk or regulatory risk. This issue needs to be recognised because, if not, apart from the negative impact on the investor, this will increase the risk of disorderly exit, reducing system stability and thereby reducing energy supply security.

4) Is the general approach to the Project appropriate and complete?

BnM firmly believes that the general approach needs to put decarbonisation at its centre and to build a delivery model which does not interfere or unnecessarily delay or compromise its delivery.

There needs to be a focus on efficient decarbonisation outcomes rather than on the method of procurement.

Services arrangements needs to be robust to a wide operational spectrum and ensure that achievement of increased renewable objectives and revenue adequacy is fully considered in developing future arrangements. Put simply, there is a need to start at the end and work back – not start at the beginning without a realistic achievable path.

Therefore, we fully support the case for a phased approach. Furthermore, we recognise that a purely market based approach is most unlikely to result in competitive outcomes and that EU legislation has allowed the RAs to approve derogations from such an approach if it is not economically efficient. It is clear from the DSOs that considerable work will be required to ensure such outcomes.

It is undeniable that a Market Approach will be the pathway for the future procurement of Ancillary Services. However, there are significant issues that need to be addressed first:

-The Investment certainty needed to build up the Renewable Electricity Supply required to meet the targets of the NECP.

-Market Power and access to non-discriminatory and transparent access to DS3 services. This would be better achieved using regulated tariffs.

The consultation paper states that a key determinant of the suitability of a market based approach will be the evaluation of market power and the potential effectiveness of market power mitigation measures. BnM would be keen to know how market power and the effect of the mitigation measures will be quantified.

5) For which products is a market based approach appropriate? What sort of market based approach is most appropriate?

Our initial thinking would be to support the 2018 services segregation, as presented within the consultation paper, based on the consultant’s view of the EBGL, where the ‘green’ services (the frequency restoration reserves and the replacement reserves), would be the first brought forward for market based arrangements.

Fig 1 CRU Presentation from a Consultant’s Report – Service Segregation

System Services Products

System Service	EBGL*	EBGL Standard Product*	Unit
Primary Operating Reserve (POR)	Y	FCR	MW
Secondary Operating Reserve (SOR)	Y	FCR	MW
Tertiary Operating Reserve 1 (TOR1)	Y	FCR/FRR	MW
Tertiary Operating Reserve 2 (TOR2)	Y	FRR	MW
Replacement Reserve Synchronised (RRS)	Y	FRR/RR	MW
Replacement Reserve Desynchronised (RRD)	Y	FRR/RR	MW
Ramping Margin 1 (RM1)	N	N/A	MW
Ramping Margin 3 (RM3)	N	N/A	MW
Ramping Margin 8 (RM8)	N	N/A	MW
Synchronous Inertial Response (SIR)	N	N/A	MW
Fast Frequency Response (FFR)	N	N/A	MWs ²
Steady State Reactive Power (SSRP)	N	N/A	MVA _r
Dynamic Reactive Response (DRR)	N	N/A	MW
Fast Post Fault Active Power Recovery (FPFAPR)	N	N/A	MW

* Views from 2018 consultant report - not formal RA views



We note, within the CEP, that where the regulatory authority has assessed that the market-based provision of non-frequency ancillary services is economically not efficient that there is provision for a derogation from market-based arrangements.

The most suitable market-based approach will need to balance the potential complexity of developing and implementing the processes and systems to operate up to 14 daily services auctions, and perhaps a greater number in the future, in a way that integrates with the energy trading arrangements with its associated significant challenges, plus associated costs to all stakeholders, vs what might be a more simple approach.

There are still significant issues re-Market Based systems. Analysis would need to be carried out if the Day Ahead market would be selected as the one to be co-optimised. Due to the need for provision of the services close to real time, a co-optimisation of energy and Ancillary Services is likely to best take place at the Balancing Market stage. A very complex interaction between the Balancing Market and Ancillary Services market would be very costly, it would be difficult to implement and could lead to unpredicted and undesirable outcomes. Hence, there is a need for a comprehensive cost benefit scenario analysis to evaluate options.

6) For which products is a market-based approach not appropriate? Why is a market-based approach not appropriate for these products? Will an alternative approach be more economically efficient? What sort of alternative approach should be considered?

The appropriate answer to these questions will ultimately be determined by the market power studies which will need to be carried out. In carrying out these studies it is essential that localised power within the distribution networks is factored in – as distinct from a broad-brush all-Island exercise. On the basis that the DSOs in their presentations were open about market power or economically inefficient conditions prevailing, the suggestion would be that it would not be appropriate to have a market based approach for any of the products at this juncture because there would, unfairly, be winners and losers.

In addition, From Workshop 1, it is not yet clear what services will be needed in the future to meet the decarbonisation targets. It is evident that much more analysis is needed and that a transitional path is the best current solution. The continuation of regulated tariffs is currently far more appropriate than a market based solution for the foreseeable future, as it would be more fair and more market efficient.

Conditional on market efficient conditions prevailing, which will require a lot of work on the Distribution side in particular, as well as on the systems side, BnM would concur with the segregation shown in Fig 1, above, where a market based approach is not appropriate to the services shown in red. These incorporate, by and large, the non-frequency based services, with the notable exception of FFR, which we understand to be kept separate so as to support the business case for a service for which the SO's have a particularly acute requirement.

7) Do stakeholders believe the current qualification process, is the most efficient approach? Do stakeholders have any alternative proposals?

We do not have any difficulty with the current 6 monthly qualification gate approach, though a continuously open gate would represent a more efficient approach, but would bring with it an ongoing administrative, qualification and testing burden which may not suit the SOs. One would have to ask whether this slight increase in efficiency outweighs the extra burdens. We do not have any alternative approaches to suggest.

8) What are stakeholder views on the overall current governance arrangements including the contractual principles, the Protocol Document and the market ruleset? Should these be modified into an overall protocol document which captures all of the rules for providing and procuring System Services with increased regulatory oversight?

No, BnM is not in favour of this potential modification to extend the Protocol Document to include the contractual principles and the market ruleset. The Protocol document, in contrast to the contractual principles and to the market ruleset, is easily changed and so gives rise to investor uncertainty and greater investor risk. Agglomerating these three strands would extend and increase this risk. Bringing these three pieces into the Protocol Document would be reflected in less economically efficient market outcomes due to higher priced market offers across one or more of Energy, Capacity or Ancillary services – at the cost of the consumer and to overall social welfare.

9) Should System Services continue to be funded through network tariffs? Are there views on any alternative arrangements?

BnM does not have issue with the continuation of funding for system services being collected from Demand network tariffs (only), as is the current practice. For absolute clarity, on no account should they be collected through generator network tariffs, as this could lead to far from optimal outcomes.

In this way, it is ultimately the consumer who pays through a relatively clear and transparent channel.

10) Should all services be procured through a single daily auction framework or should bespoke arrangements be developed for the separate products?

11) What are stakeholders' views on the timing of auctions?

Taking these two questions together.

Q10 needs very careful consideration and evaluation of alternatives and their associated impacts. Our first observation is that the meaning of the question is not sufficiently clear; it needs further explanation.

At a higher level, we would highlight the potential complexity of developing and implementing the processes and systems to operate up to 14 daily services auctions, and perhaps a greater number in the future, in a way that integrates with the energy trading arrangements with its associated significant challenges. We would also be aware of the potential of significant costs to arise for both the TSOs/DSOs and Market Participants in implementation.

Our highlighting the complexity of 14 daily services auctions does not infer our support for the grouping of products. The paper indicates that it wishes to explore different options for the grouping of products, and it highlights potential market distortion issues with same. It could potentially make sense to group POR, SOR and TOR1 services which could avoid a service provider clearing an auction for one service only, while providing all three. There is insufficient information to provide a comprehensively informed response from industry, with further analysis and collaboration required.

In developing the future arrangements to deliver efficient outcomes and satisfy key requirements above, BnM believes the SOs RAs should build, in a structured manner, using workshops and consultations, on the existing arrangements so as to deliver the services required to meet the decarbonisation agenda for 2030 and beyond.

Clearly, investor certainty is paramount, and a comprehensive industry inclusive process is needed to fully understand key requirements for investor certainty to ensure delivery of required services and avoid a missing money problem and/or the risk of untimely exit over the span of both transitional as well as enduring arrangements.

It follows that a timely decision on transitional arrangements is required to provide investor certainty before the T-4 Capacity auction in January 2021.

With regard to Q11 and the timing of auctions, the paper appears to be unclear as to the level of interaction required between the Ancillary Services and Energy markets by discussing which should come first – the Ancillary Services offer or the Energy offer.

It would appear most logical to BnM that the Energy Offer would precede the Ancillary Services offer, though analysis would be required to determine the scale of potential non-optimal outcomes, as well as the potential for revenue cannibalisation.

12) Do stakeholders have any proposals on how best to ensure commitment obligations are met?

13) What are the significant interactions within potential System Services product markets and between Systems Services markets and the energy and capacity markets? How should issues arising be addressed?

Taking the two of these questions together as they are strongly related.

The paper explains that the commitment obligations referred to are to ensure that providers of balancing capacity meet their commitments if called upon to provide balancing energy – where balancing capacity aligns with some of the system services products.

How best to secure commitment obligations is complex and one which will require thorough analysis. The paper indicates that the SEM Committee intends to analyse the effect that any proposed design of the System Services market would have on the energy and capacity markets and that it is important that the operation within, and between, markets provides for the most efficient outcomes as a whole.

Furthermore, the commitment obligation must factor that any redesign of System Services should be considered holistically given the interaction of Ancillary Services revenues with energy and capacity markets, and should not give rise to a missing money problem. There are already commitments from thermal plants on an expected remuneration from DS3 services on the calculation of the missing money element and therefore the bidding behaviour on the Capacity auctions. As Apart from consideration of the Investor, there is the threat to system security from a disorderly exit.

In common to our responses to Q10 & Q11 this analysis should be done in full partnership with Industry.

Fair outcomes are related to the meeting of Commitment obligations. Regarding fairness, we refer to part of our response to Q1. The 'minded to' position within the SOs presentation from Workshop 1 gave rise to the concern that the service provider might not be remunerated, even while supplying services, and having services available.

BnM firmly believes that the service provider must be remunerated for provision of the 'availability' of a service, most especially i) when this 'availability' is a Grid Code requirement and ii) where other Technology providers may not share this same requirement.

We believe that the basic tenet of Offer, Acceptance and Consideration, within contract law would support this position.

The timing of auctions between the system services and energy markets is relevant to both meeting the commitment obligations as well as to the interactions within potential System Services product markets and between Systems Services markets and the energy and capacity markets; in this regard we refer to our responses to Qs 10 & 11.

14) Do stakeholders have further views or proposals in relation to auction design?

From our preceding responses it is essential to appreciate that designing enduring future arrangements fit for purpose will require analysis, significant time and industry input.

2 Concluding remarks:

To conclude, we highlight four points:

- i) BnM, in alignment with the EAI, recommends to focus on efficient Decarbonisation outcomes rather than the method of procurement. We recognise that the over-riding requirement here is the Decarbonisation agenda – that we are on a steady path to same² – and that the National Policy agenda needs to lead the EU legislation, while being fully cognisant of its requirements, all the while factoring it in to the delivery model in so far as is reasonably practical. Essentially, services arrangements need to be robust and ensure that achievement of increased renewable objectives and revenue adequacy is fully considered in developing future arrangements.
- ii) The scale of the work to bring the DSOs, which are central to delivery, on board ('in 2021 – 2025 alone, there will be >40,000 locations where investment will be absolutely necessary'³; will take time as will systems design, testing, etc.
We note the DSOs opinion that competition within DS3 services is currently 'economically not efficient'.

² Where this steady path towards 70% renewable electricity by 2030 is being made possible with existing arrangements with the active support and full engagement of industry

³ Ref DSO's presentation Future of DS3 Workshop 1

Until such time as mechanisms allow a properly functioning market, which will yield value to the consumer, there is a need for a transitional solution by extending existing arrangements. Market Power and access to non-discriminatory and transparent access to DS3 services would be better achieved using regulated tariffs.

- iii) The absolute importance of building the solution⁴ around the investor case to protect existing investment so as to avoid risk of disorderly exit. BnM firmly believes that a key component of this is that the service provider must be remunerated for provision of the 'availability' of a service. New investment too must have confidence that future re-designs will not undermine their business cases.
- iv) Due to the high uncertainty of outcomes, considerable work is required. A comprehensive industry inclusive process through Workshops, consultations and effective communication is needed to fully understand key requirements for investor certainty to ensure delivery of required services and avoid missing money problem, and factoring in the new dynamic interaction between energy, capacity and system services revenues. In essence, designing enduring future arrangements fit for purpose will require more time and significant industry input and collaboration with the authorities.

We hope that you find these comments of use and submit them for your consideration. We would be pleased of course to discuss any aspect of our responses should you so wish.

For and on behalf of Bord na Móna



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⁴ Which takes into account all the issues and options within the consultation and workshops 1 & 2