

## **System Services Future Arrangements**

### **Response from the Irish Energy Storage Association**

The Irish Energy Storage Association is pleased to have the opportunity to respond to this consultation paper and input our ideas into the development of Future Arrangements for the DS3+ market. We summarise the key points and then answer the individual questions below.

#### **Key Points**

- Carrying out the high level design, detailed design, specs for systems (DS3 + I-SEM + interactions) and building and testing (incl. dummy runs) of systems are not realistic by April 2023. To ensure that there is continuing investment in plant to provide the system services required to meet the increasing level of non-synchronous renewable generation it is essential to set a realistic roadmap and target date now and extend the current Regulated Arrangements for one or more period(s) of 18 months with an appropriate revenue cap increase. Clarity is needed now to ensure adequate new investment and prevent market exit.
- The current €235m cap was for the 40% target for 2020 and associated SNSP. Heading to a 70% target and >90% SNSP means that the cap must be raised accordingly, regardless of the market mechanism (tariffs, auctions etc.)
- We accept daily auctions as probably the best option for a competitive market and understand the ideological preference for such a market. However this is subject to the bankability of projects which we believe requires a separate fixed payment based on a plant's availability to provide system services regardless of whether it is called to do so. (See the 6<sup>th</sup> bullet point below for a more detailed explanation.) Furthermore, daily auctions will be very complex and it needs to be demonstrated how the benefits outweigh the additional costs so that the end consumer is not disadvantaged.
- We do not believe that there are benefits to consumers in Ireland from aligning with EU markets for system services at the moment. There is no direct interconnection with mainland Europe and GB will no longer be part of the EU so it appears that EGBL will not apply. We should schedule full alignment in time for the Celtic interconnector in 2026.
- The national policy for ramping up renewable generation to reach 70% by 2030 should be taken as a more important driver. This will require substantial investment in new plants to provide system services so changes to the market should be designed to minimise financial risk.
- The transition from a tariff arrangement to daily auctions introduces significant financial risks for plants which provide only system services because they don't know how often they will clear the daily auctions. In the same way as plants which provides energy have 2 revenue streams (capacity payments regardless of whether they are scheduled to run or not and energy payments if they are scheduled to run), plants providing system services should similarly have a fixed payment when they are available to provide system services as well as the DS3 payments when they are scheduled to provide these DS3

services. The details of this fixed payment will have to be worked out. It is not proposed to be like the existing capacity payment method based on difference payments. It is envisaged to be a simple payment for being available to provide system services which would be a function of what services that plant could provide. There should be a mechanism to prevent old plant which never runs from continuing to get such fixed payments. For example, the payment could tail off after, say, 10 years but there could be alternative mechanisms to achieve the same objective.

- This consultation paper is at a conceptual level. There needs to be a further consultation of the actual auction design at a high level before the detailed auction design is carried out.
- An additional criteria should be decarbonisation of electricity. There are 2 aspects to this:
  - providing a market to ensure sufficient system services to facilitate the volume of non-synchronous renewable generation required to meet the 70% target by 2030. Criteria 3 “System Need” does not include a requirement to meet the 2030 target.
  - As auctions develop for different products, the cost of carbon should be explicitly taken into account in the bidding process when comparing, for example, energy storage to fossil fuel plants
- The auction should be implemented in two stages. The first stage could include RRS, RRD, RM1, RM3, RM8 initially as these are more linked to the energy market and are more straightforward to implement. The remaining products would be added once experience had been gained and lessons learned. This would also give more time to design the auction for the more complex products. Full implementation would be required prior to the Celtic interconnection.
- One of the complexities of the auctions is the large number of products which have to be simultaneously cleared. What happens if a provider clears some DS3 products but not others e.g. POR and TOR2 but not SOR, TOR1 which will be provided anyway but without any revenue. Part of the solution may be sensible bundles e.g. POR -> TOR2 (like Volume Capped contracts). The absence of such a bundle would significantly increase the financial risks for new providers of system services such as battery plants.

	<b>Question</b>	<b>Response</b>
1	Are there additional requirements in EU legislation or national policy that should be considered as key guidance for the project?	There is no direct interconnection with mainland Europe and GB will no longer be part of the EU so it appears that EGBL will not apply. We do not believe that there are benefits to consumers in Ireland from aligning with EU markets for system services at the moment. We should schedule alignment in time for the Celtic interconnector in 2026. The national policy for ramping up renewable generation to reach 70% by 2030 should be taken as a more important driver. This will require substantial investment in new plants to provide system services so changes to the market should be designed to minimise financial risk.
2	What should the role of DSOs be in development of the new arrangements?	Greater engagement between the TSOs and DSOs is required than has been the case to date. Greater clarity is needed about what system services can be provided at DSO level. The same market should apply to providers at the TSO and DSO levels.

3	Should any further assessment criteria be included in this workstream?	<p>An additional criteria should be decarbonisation of electricity. There are 2 aspects to this:</p> <ul style="list-style-type: none"> <li>• providing a market to ensure sufficient system services to facilitate the volume of non-synchronous renewable generation required to meet the 70% target by 2030. Criteria 3 “System Need” does not include a requirement to meet the 2030 target.</li> <li>• As auctions develop for different products, the cost of carbon should be explicitly taken into account in the bidding process when comparing, for example, energy storage to fossil fuel plants</li> </ul>
4	Is the general approach to the Project appropriate and complete?	<p>There is a real risk that lack of clarity about the market for system services post April 2023 will halt investment in new system services plant. This, in turn, would result in insufficient system services being available to increase the SNSP to the levels required to meeting the 2030 target of 70% renewable generation. High level design, detailed design, specs for systems (DS3 + I-SEM + interactions) and building and testing (incl. dummy runs) of systems is not realistic by April 2023. It is essential to provide clarity by setting a realistic roadmap and target date now and announce the extension of the current Regulated Arrangements for one or more period(s) of 18 months with the appropriate revenue cap increases. The current €235m cap was for 40% target for 2020 and associated SNSP. Heading to the 70% target and &gt;90% SNSP means that the cap must be raised accordingly regardless of the market mechanism.</p> <p>A market based solution may be the best solution and IESA understands the ideological pressure to implement such a solution and is open to this. However this is subject to the bankability of projects which we believe requires a separate fixed payment based on a plant’s availability to provide system services regardless of whether it is called to do so. (See answer to Q16 3<sup>rd</sup> consideration below for a more detailed explanation.) Furthermore, as it is highly complex and increases the financial risks for providers of the system services, this increases costs so the benefits and/or requirements need to be demonstrated.</p> <p>If an auction, as proposed, is introduced it should be done so in, say, two stages. The first stage could include RRS, RRD, RM1, RM3, RM8 initially as these are more linked to the energy market and are more straightforward to implement. The remaining products would be added once experience had been gained and lessons learned. This would also give more time to design the auction for the more complex products. Full implementation would be required prior to the Celtic interconnection.</p>

5	For which products is a market based approach appropriate? What sort of market based approach is most appropriate?	See Q6 in relation to products As a market based approach, daily auctions are the most suitable. The financial risk to suppliers is the same regardless of whether the auctions are daily or weekly while daily auctions provide the TSO with greater flexibility to procure the required volume, day to day.
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?	SIR and FFR are grid stability products in timeframes much faster than anything on mainland Europe at the moment. They should not be part of a competitive process. (It could be argued that POR falls into the same category but it may make more sense to leave this with SOR and TOR – see Q13 for a proposal about bundles below). These should continue on a tariff basis with an expenditure cap appropriate to the value and volume of these services required.
7	Do stakeholders believe the current qualification process, is the most efficient approach? Do stakeholders have any alternative proposals?	It is not clear whether this question refers to the Qualification Trial Process. If so, it is OK
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	No strong views on this question.

	which captures all of the rules for providing and procuring System Services with increased regulatory oversight?	
9	Should System Services continue to be funded through network tariffs? Are there views on any alternative arrangements?	The funding of system services through UoS charges was appropriate when it was a small part of the overall electricity market costs. This should now be reviewed as part of a fundamental review of the electricity market. However the funding of system services is a separate issue and should not impact on the design of the system services market except that the timing of the funding needs to be aligned with the timing of the payments.
10	Should all services be procured through a single daily auction framework or should bespoke arrangements be developed for the separate products?	We propose that SIR and FFR continue on tariffs. We propose that all other products would be procured through the daily auction eventually but that this would be implemented in two stages with RRS, RRD, RM1, RM3, RM8 in the first stage.
11	What are stakeholders' views on the timing of auctions?	Conventional plant needs to clear the Energy Market first to know that they will be synchronised to be able to provide System Services. Battery plant will want to know if they clear System Services market first and, if not, have the option of being in the Energy Market
12	Do stakeholders have any proposals on how best to ensure commitment obligations are met?	The current DS3 already has performance penalties. Storage plant has no difficulty in being available to provide DS3 services. It is more difficult for conventional plant which may or may not be scheduled to run in the energy market. There could be some penalty for plant which clears in the system services market but is clearly seen as not bidding in appropriately into the energy market to ensure it is running. However, if it is not running, it has to declare itself non available for system services so this situation is unlikely to occur.
13	What are the significant interactions within potential System Services product markets and	What happens if a provider clears some DS3 products but not others e.g. POR and TOR2 but not SOR, TOR1 which will be provided anyway but without any revenue. Part of the solution may be sensible bundles e.g. POR -> TOR2 (like Volume Capped contracts). The absence of such a bundle would significantly increase the financial risks for new providers of system services such as battery plants.

	<p>between Systems Services markets and the energy and capacity markets? How should issues arising be addressed?</p>	<p>As the level of wind and solar generation increases substantially, there will be an increasing requirement for energy balancing from (longer duration) energy storage plant, some of which will also be providing system services. Hence the sequencing of auctions becomes important. See Q11 above.</p> <p>Storage plant which is operating in the energy market is also likely to be in the capacity market. It will have to bid into the energy market in such a way as to ensure that it is called to run if the energy price rises above the strike price.</p> <p>Detailed work will be required in understanding the interactions between the system services market and the energy market (and, to a lesser extent the capacity market) and designing the auction process to take account of these.</p>
14	<p>Do stakeholders have further views or proposals in relation to auction design?</p>	<p>These are already covered above</p>
15	<p>Do stakeholders believe there would be benefit in maintaining the Fixed Contract Arrangements for future procurement runs?</p>	<p>Fixed contracts are a useful fallback if new plant is not being built.</p>
16	<p>Do stakeholders have views on the list of additional considerations above? Are there any further issues to consider?</p>	<p>To answer the 3 additional considerations:</p> <ol style="list-style-type: none"> <li>1. Conventional plant could bid in very low prices for system services. However, they can only provide these if they are running so it is important that they are not called to run while renewable generation is being curtailed i.e. they are only called to run when the demand cannot be met by renewable generation. Hence it is critical that the market incentivises sufficient “non-energy” plant to provide the system services required to facilitate all the renewable generation coming on stream without curtailment.</li> <li>2. Fixed contracts are a useful fallback if sufficient new DS3 plant is not being built</li> <li>3. Daily auctions should be introduced for RRS, RRD, RM1, RM3, RM8 initially and then extended to the remaining products.</li> </ol> <p>In addition, the transition from a tariff arrangement to daily auctions introduces significant financial risks for plants which provide only system services because they don’t know how often they will clear the daily auctions. In the same way as plants which provides energy have 2 revenue streams (capacity payments regardless of whether they are</p>

		<p>scheduled to run or not and energy payments if they are scheduled to run), plants providing system services should similarly have a fixed payment when they are available to provide system services as well as the DS3 payments when they are scheduled to provide these DS3 services. The details of this fixed payment will have to be worked out. It is <u>not</u> proposed to be like the existing capacity payment method based on difference payments. It is envisaged to be a simple payment for being available to provide system services which would be a function of what services that plant could provide. There should be a mechanism to prevent old plant which never runs from continuing to get such fixed payments. For example, the payment could tail off after, say, 10 years but there could be alternative mechanisms to achieve the same objective.</p>
17	What are stakeholders' views on the potential existence of, and options for mitigation of, market power?	See answer 1 to Q16 above