



REVIEW OF THE PERFORMANCE OF THE SEM CRM

Consultation Response Paper

SEM-23-036

14 November 2023

Executive Summary

On 26 August 2022, the SEM Committee published the Review of the Performance of the SEM CRM Report prepared by EY, along with a Call for Comments paper (SEM-22-054)¹ which listed the recommendations that the SEM Committee were already progressing along with recommendations that the SEM Committee were considering for progression at the time of publication. The Call for Comments invited industry to comment on the Report by 4 November 2022. The RAs also held a series of bilateral meetings with market participants to discuss the Report in October 2022.

This Consultation Response document summarises industry views on the recommendations made in the Report, the SEM Committee's view and an initial timeline of the implementation process of each of these recommendations.

A total of 19 responses from various market participants, representative bodies and TSOs were received to the Call for Comments paper. In general, the respondents agreed with the recommendations which aim to improve transparency of the volume setting process in capacity auctions and increasing auction participation. There was broad disagreement amongst respondents on the recommendations where the implementation of the recommendation would result in higher penalties and performance securities.

The table below shows the status of recommendations that have been implemented or are being progressed under the SEM Committee.

Table 1: Status of recommendations that have been implemented or are being progressed under the SEM Committee

Recommendation	Current Status
Enhanced monitoring process for New Capacity	The TSOs have established a more rigorous monitoring approach to assess the progress of projects, giving an earlier insight into delivery timeline, minimising risk of unforeseen adequacy gaps. The SEM Committee is considering formalising the TSO monitoring process through a CMC Modification.

¹ Under the Security of Supply Programme, CRU engaged EY to assess the design of the CRM for any improvements that could be made to ensure sufficient procurement of capacity through the CRM. EY prepared the Report detailing their assessment and identifying areas with scope for improvement. In the Report, EY also made recommendations that could be implemented by the SEM Committee to improve the performance of the CRM.

Recommendation	Current Status
Increase performance securities following auction	<p>Rates increased for any event occurring 13-24 months prior to the beginning of the capacity year since the T-4 2025/26 auction.</p> <p>Rates increased for capacity contracted in the T-4 2027/28 auction.</p> <p>These figures are to be kept under review and may include further changes in subsequent auctions.</p>
A “permissive” approach to requests for extensions from new build projects	<p>The SEM Committee has approved CMC Modifications on third party delays, providing more flexibility to the generators.</p> <p>The SEM Committee has previously considered, and will continue to consider, extension requests on a case-by-case basis.</p>
Recalculation of reliability standard	<p>The SEM Committee has published BNE Decision (SEM-23-016) and the VoLL study (SEM-23-072).</p> <p>The Reliability Standard (RS) is being reviewed in light of the results of these studies and the RAs are engaging with the Departments in Ireland and Northern Ireland.</p>
Ensure 4 years lead time for T-4 Capacity Auctions	<p>T-4 2027/28 auction to be conducted to allow 4 years lead time.</p> <p>All subsequent T-4 auctions will target at least 4 years lead time. The SEM Committee will consider expediting approval of the Final Capacity Auction Results.</p>
Recalibration of the administrative scarcity pricing function	<p>The SEM Committee has published a consultation paper on Administrative Scarcity Pricing (SEM-23-047). The responses received are being reviewed by the SEM Committee.</p>
Enable energy payments for DSUs	<p>The SEM Committee has decided to adopt a phased approach to enable DSUs access to energy payments in the balancing market (SEM-22-090).</p> <p>The Balancing Market Trading and Settlement Code (T&SC) Modification – Mod_02_23 “DSU Energy Payments” was proposed to implement phase 1 of SEM-22-090 and to extend access to energy payments to DSUs, and to pay for this via the imperfections charge (paid for by all customers).</p> <p>It was made clear in Mod_02_23 that implementation of the modification would be subject to an impact assessment which would model the impact on resources, systems, and on imperfections charges.</p> <p>The impact assessment for Mod_02_23 identified two modes of participation for DSUs in the market. Providing energy payments to DSUs that participate in one of these modes would impose significant costs on the final electricity customer and it seems it would not significantly change the behaviour of these DSUs in the</p>

Recommendation	Current Status
	market. Therefore, the RAs are considering how to enable payments to DSUs which participate in the market, in a way that provides values to consumers.
Implement a baseline methodology for assessing the contribution of DSUs in reducing energy demand.	A baseline methodology will be developed in order to measure the metered demand response at each relevant Individual Demand Site (IDS), and the T&SC will be amended to construct the metered quantity for each DSU from the sum of the metered demand response at each IDS that forms part of the DSU.
Greater monitoring of technology performance in stress events to inform future de-rating factor setting.	Changes to de-rating factors have been made following the decision paper SEM-22-044 ² . The SEM Committee invites the TSOs to monitor technology performance in stress events and recommend any changes to the de-rating factors based on their analysis to the SEM Committee.
Greater focus on delivery of infrastructure to enable more competitive all island market and to reduce pressure for new builds to be situated in particular locations.	With the finalisation of the review of the North South Interconnector project by the Irish Government, and commencement of the delivery phase, the SEM Committee has requested detailed project updates from TSOs on the delivery of the NS-IC. The SEM Committee will consider expanding this reporting from TSOs to other key infrastructure project relating to major constraints.

The SEM Committee are minded to adopt a further five recommendations mentioned in the Report and will take necessary steps to ensure that these recommendations are consulted upon and progressed following more detailed analysis as required. These recommendations are listed in the table below.

Table 2: Recommendations that SEM Committee intends to progress in coming years.

Recommendation	Implementation Process	Indicative Date
<p>Greater transparency of the target setting through:</p> <p>(A) a PTE assessment of EirGrid recommendations with their findings published.</p>	<p>(A) The SEM Committee to request a member of the Great Britain PTE to review and propose roles and scope of the SEM PTE, followed by SEM Committee Consultation</p>	<p>(A) Aim to consult in Q4 2023 on PTE terms of reference.</p>

² https://www.semcommittee.com/sites/semc/files/media-files/T-4_2026_27_Parameters_Decision_Paper_0.pdf

Recommendation	Implementation Process	Indicative Date
(B) An explanation of the process by which GCS forecasts are translated to the Target Volume to procure in capacity auctions.	and Decision-making process. (B) Information Note on SEM Committee changes to the TSO Volume Recommendation to be published after every capacity auction.	(B) Information Note on SEM Committee decision on the T-4 2026/27 Target Volume to be published in Q4 2023.
Applying administrative penalties for non-delivery to plants in specific locations where an amber alert has been raised and a plant is unavailable.	Undertake detailed analysis.	To be analysed following conclusion of review of ASP mechanism.
Requirement of new prospective capacity to have all necessary consents to prequalify for auction.	CMC states that a valid Grid Connection Agreement/Offer is required for a capacity to be qualified for any capacity auction. Considering the security of supply developments in Ireland, CRU is to gradually phase out issuing Grid Directions to EirGrid. UR currently require New Capacity to have a valid Grid Connection Offer to prequalify for capacity auction.	T-4 2029/30.
Refining the principle of flagging interconnector actions from SEM BM prices to drive prices that are more likely to exceed the RO strike price and more reflective of the value of generation.	Detailed analysis followed by SEMC Consultation and Decision-making process.	Aim to consult by Q4 2024.

Contents

Executive Summary	2
1. Introduction	7
1.1 Background	7
1.2 Responses to Call for Comments	8
2. Volume of Capacity	9
2.1 Recommendations.....	9
2.2 Summary of Responses	9
2.3 SEM Committee View.....	10
3. Participation in Auctions	14
3.1 Recommendations.....	14
3.2 Summary of Responses	14
3.3 SEM Committee View.....	15
4. Timely Delivery of New Capacity	17
4.1 Recommendations.....	17
4.2 Summary of Responses	17
4.3 SEM Committee View.....	18
5. Value of Procured Capacity	21
5.1 Recommendations.....	21
5.2 Summary of Responses	21
5.3 SEM Committee View.....	23
6. Conclusion and Next Steps	25

1. Introduction

1.1 Background

On 26 August 2022 the SEM Committee published a Call for Comments (SEM-22-054 and SEM-22-054a) on the EY review of the performance of the SEM Capacity Remuneration Mechanism (**CRM**). As a part of this review, EY assessed the design of the CRM for any improvements that could be made to ensure sufficient procurement of capacity and prepared a report (the **Report**), which includes recommendations that could be implemented to improve the performance of the CRM. EY assessed the CRM around four areas:

1. Volume of capacity procured in auctions;
2. Level of participation in the auctions;
3. Timely delivery of New Capacity procured; and
4. Value of procured capacity.

At the time of publishing the Call for Comments, the SEM Committee and TSOs were progressing several recommendations from the Report. Updates on these recommendations are set out below.

- TSOs implemented an enhanced monitoring process for New Capacity coming through the capacity auctions since T-3 2024/25 in Ireland. Through this enhanced monitoring, which includes expert advice on power generation delivery, deliverability risks associated with the new projects are assessed which enables early indication of non-delivery. In 2023, a new committee was established to monitor delivery of New Capacity in Northern Ireland.
- The SEM Committee increased the performance security rate and termination charges for any event that occurs 13-24 months prior to the beginning of the capacity year for the T-4 2025/26 and all following T-4 auctions. The SEM Committee increased the rates for any event that occurs from the beginning of the capacity year for T-4 2027/28.
- The SEM Committee published a Decision (SEM-22-090) in relation to Demand Side Units (DSUs) receiving energy payments in the balancing market.
- The SEM Committee published a Decision (SEM-23-029) to extend the exemption from exposure to Non-Performance Difference Charges to units that are available and in-merit. This Decision ensures a more appropriate application

of Non-Performance Difference Charges and will facilitate the potential recalibration of the administrative scarcity pricing (**ASP**) function.

- The SEM Committee has now published a Decision on the Cost of New Entry (CONE) (SEM-23-016) and a study to re-calculate the Value of Lost Load (VoLL) is nearing completion. The results from these studies will inform the re-evaluation of the reliability standard.

The following sections set out the recommendations and summary of the responses, along with SEM Committee view under four headings. Section 6 of this document provides an indicative work plan to implement the recommendations.

1.2 Responses to Call for Comments

A total of 19 responses were received to the Call for Comments, from the following entities. The non-confidential copies of these responses are published alongside this Consultation Response paper.

- ART Generation
- BGE
- Bord na Móna
- DRAI
- EAI
- Energia
- Energy Storage Ireland
- EPUKI
- ESB GT
- Fluence
- iPower Flexible Energy
- Irish Academy of Engineering
- Irish Energy Storage Association
- Mutual Energy Ltd
- Net Zero Energy
- Prepay Power
- RWE Renewables Ireland
- SSE
- TSOs (EirGrid/SONI)

2. Volume of Capacity

2.1 Recommendations

EY recommended the following remedies, which were under consideration of the SEM Committee to progress at the time of the publication of SEM-22-054, to enhance the process of volume setting for capacity procurement in auctions:

- *Move to a tighter reliability standard in line with other European markets.*
- *Greater transparency of the target setting through a Panel of Technical Experts (PTE) assessment of TSO volume recommendations, with their findings published, and an explanation of the process by which Generation Capacity Statement (GCS) forecasts are translated to the Target Volume to procure in capacity auctions.*
- *More explicit accounting of non-delivery in setting target volume, with two options for implementation:*
 - *Introduce a process to monitor progress reports for early indication of non-delivery; OR*
 - *Apply a standardised adjustment to the capacity requirement to account for the likelihood of non-delivery and review inputs to adjustment % periodically.*

2.2 Summary of Responses

In general, the respondents are in agreement with the recommendations mentioned in this section of the Report. The Irish Energy Storage Association mentioned that the current CRM design does not incentivise storage projects, especially longer-duration projects.

Energia and BGE called for a 3-hour LOLE standard in their responses. While supporting a tighter reliability standard, EPUKI noted the need to update the auction parameters and to ensure that the awarded capacities are appropriately compensated for any resulting reduction in margin.

The TSOs, in their response, disagreed with the finding that their forecasting is inaccurate. The TSOs suggested that the focus of transparency should be around the manner in which the SEM Committee finalise the capacity requirements of each of the Locational Capacity Constraint (LCC) areas. They also stated that the SEM Committee needs to incentivise investment in a balanced portfolio of generation to ensure a secure

power system while delivering on the Irish Government's and Northern Ireland Assembly's policies on renewable integration and decarbonisation ambitions. The TSOs suggested that to meet the capacity needs identified, there are not enough credible projects that meet all of the qualification criteria. The TSOs strongly opposed the Report finding that they did not accurately forecast the future capacity requirements. The TSOs stated that for a number of auctions the amounts sought by the TSOs have been inappropriately adjusted by the SEM Committee.

Most of the respondents agreed that the introduction of a Panel of Technical Experts (**PTE**) will increase transparency around volume settings. A number of these respondents noted the additional processes and resources required for actioning this recommendation and had concerns that this might lengthen the current auction process. There was broad agreement among some of the respondents that transparency was required on how the GCS forecasts are translated to TSO volume recommendation and then the final capacity requirement set by the SEM Committee.

Most of the respondents who commented on the recommendation to account for non-delivery were broadly in support of both the options – of enhanced monitoring and standardised adjustment to the volume. The Irish Academy of Engineering (IAE) and iPower Flexible Energy mentioned that there should be no need to make any adjustments to the TSO recommendation. RWE Renewables pointed out that applying a standardised adjustment will undermine the benefits of having a PTE and risks creating uncertainty around potential changes to target setting and derating factors.

2.3 SEM Committee View

Reliability Standard Setting

The SEM Committee, in its Forward Work Programme (SEM-22-094), committed to publish new Value of Lost Load (**VoLL**), Cost of New Entry (**CoNE**) and Reliability Standard (**RS**) parameters. A Decision on the Cost of New Entry (SEM-23-016) was published on 5 April 2023. An Information Paper on the calculation of a single Value of Lost Load within the Single Electricity Market (SEM-23-072) was published on 29 September 2023. The SEM Committee is currently reviewing the RS in light of the results of these studies and is engaging with the Department of the Environment, Climate and Communications (**DECC**) in Ireland and Department for the Economy (**DfE**) in Northern Ireland. It should be noted that initial analysis of the BNE and VoLL suggests

that potential changes to the RS do not make a significant impact on capacity volumes to be procured.

Demand Forecasting

The SEM Committee notes that the GCS plays an important role in setting out, for industry, policymakers and the economy broadly, an indication of the likely supply of generation and levels of demand over the coming decade. The GCS is also an important consideration in relation to the volume setting process for the CRM auctions, whereby the high and low demand forecasts are used as the basis of the TSO modelling for the target capacity values.

The SEM Committee is of the view that demand forecasts in a small system such as the SEM will inevitably be volatile to expectations around decisions of a small number of very large demand customers. This said, the SEM Committee is also of the view that greater confidence in the TSO forecasting may be possible. An important consideration in this regard will be the implementation of the National Resource Adequacy Assessment (**NRAA**) methodology, based on the European Resource Adequacy Assessment methodology developed by ENTSOE and approved by ACER. This should provide greater clarity to market participants on the underlying calculations.

In GCS 2021, following terminations of units awarded in T-4 2022/23 and based on other factors, TSOs undertook “Ireland Only – Security of Supply Risks” studies and the results were included in GCS 2021, which first called out the system concerns in the immediate term. As a response to EirGrid’s identification of the potential capacity shortfall for the winter periods of 2021/22 to 2025/26, the CRU published a programme of work (Electricity Security of Supply Programme of Work) on 29 September 2021, of which the EY Report was a part.

Capacity Setting – Adjustments

In EY’s analysis, it is shown that the SEM Committee adjusted the TSO volume recommendation downwards in the three T-4 auctions considered. Looking specifically at the TSO analysis (in page 13 of TSO response), the following can be stated:

- T-4 2022/23: SEM Committee procured only 16MW less than what was recommended by the TSOs. 611 MW of New Capacity procured through this

auction was terminated for different reasons which exacerbated the security of supply concerns in Ireland.

- T-4 2023/24: SEM Committee procured 129MW in addition to the TSO volume recommendation for that auction.
- T-4 2024/25: SEM Committee procured all available capacity that was offered in the auction.

The SEM Committee rejects the suggestion that inappropriate adjustments to the TSO recommendations were made. That said, the SEM Committee agrees with the Report along with some respondents, that auction participants would benefit from an increase in transparency in the SEM Committee decision making regarding the volume requirement. The SEM Committee will publish information notes on the adjustments made by the SEM Committee to the TSO recommended volume requirement following the conclusion of T-4 capacity auctions in future.

Capacity Setting – Panel of Technical Experts

The SEM Committee notes the support from the respondents in setting up a PTE to review the TSO recommendations of the target volume and to increase the transparency in the SEM Committee volume setting process. The SEM Committee also notes that similar PTE exists in Great Britain (**GB**) and provides scrutiny of the analysis of National Grid's recommendation on the target capacity for capacity market auctions in the annual Electricity Capacity Report³. The SEM Committee view is that assessment of the TSO recommendation of target volume by a PTE would be beneficial, and there are a number of different options for establishing such a PTE and the process for input into the process. The SEM Committee intends to introduce the PTE assessment as an additional level of scrutiny on the TSO forecasts and any adjustments made to the target volume before the SEM Committee sets the capacity requirement for a particular auction.

The SEM Committee intends to approach a third party, ideally an expert with some level of engagement with the GB-PTE, to propose roles and terms of reference for a PTE in the SEM. This will be progressed to consultation in due course by the SEM Committee.

³ <https://www.gov.uk/government/groups/electricity-market-reform-panel-of-technical-experts>

Enhanced monitoring of project delivery

The TSOs have already introduced a process to identify any early signs of non-delivery through periodical engagements with the capacity contract holders and through a third-party assessment of the progress on delivery of the projects in Ireland. The SEM Committee agrees with the TSO that such a rigorous monitoring approach would minimize the risk of unforeseen adequacy gaps. When considering adjustments to the capacity requirement to reflect in the demand curve and the LCC Area Required Quantities (target volumes) for each auction, the SEM Committee considers the risk of non-delivery of New Capacity. Adjustments to reflect the risk of non-delivery were included in a diversified risk adjustment for the T-4 2026/27 auction and reflected in the requirements set out in 2026/27 Final Auction Information Pack (**FAIP**). Any non-delivery adjustments for further auctions will be considered by the TSOs and the SEM Committee prior to each auction, considering latest information from TSO monitoring programmes.

3. Participation in Auctions

3.1 Recommendations

With the aim of increasing the capacity auction participation, EY recommended the following remedies. The SEM Committee had considered progressing these recommendations at the time of the Call for Comments paper publication.

- *Requirement of new prospective capacity to have all necessary consents to prequalify for auction. This remedy is potentially of less importance if auction lead times are extended.*
- *Greater focus on the delivery of infrastructure to enable more competitive all island market and to reduce pressure for new builds to be situated in particular locations.*

3.2 Summary of Responses

In general, there was agreement among respondents for implementing these two recommendations.

Three respondents did not agree that requiring prospective new capacities to have necessary consents to pre-qualify for auction is appropriate. While BGE said that the remedy is only addressing a symptom and not the cause. RWE Renewables and Irish Academy of Engineering pointed out that getting necessary consents, especially grid consents, may not be always feasible for the prospective builds. While other respondents broadly agreed with the recommendation, some respondents requested that the SEM Committee provide more details on this recommendation. Some respondents also noted the differences in obtaining connection offers and other consents in Northern Ireland and Ireland. The TSOs and Net-Zero Energy mentioned in their response that implementing this recommendation may reduce investment in short-term.

All respondents agreed that there is a need to have greater investment in infrastructure. Bord na Móna notes that long-term grid solutions are more sustainable than emergency procurements. While supporting the recommendation, Energinet also pointed out the need for a future outlook for grid connection and what the system can accommodate at technical levels. The TSOs responded that the solution is not just around infrastructure investment, but also around project delivery and maturity of project proposals.

3.3 SEM Committee View

Under the Capacity Market Code (**CMC**), it is clearly set out that a candidate unit that includes New Capacity should include a proposed Implementation Plan which includes, among others, *a copy of either the Connection Agreement(s) or a Connection Offer(s) from the relevant Transmission System Operator or Distribution System Operator (sufficient to accommodate the increased capacity)*⁴. Since the T-4 2022/23 auction, except the T-4 2024/25, CRU has issued relevant Grid Directions to the SOs in Ireland, meaning that projects that qualify for the auctions under these directions do not need to have a valid Connection Agreement or Connection Offer in advance of the auctions. Thus, prospective new builds in Ireland have not had to provide any consents, including Grid Connection Agreement/Offer, to qualify and participate in the capacity auctions.

As pointed out by a few respondents, the SEM Committee is aware that there is not enough already consented New Capacity in the pipeline and immediate implementation of this recommendation may reduce incentives for prospective new builds to participate in the auctions. The SEM Committee intends to consider this recommendation and the CRU intends to gradually phase out issuing Grid Directions in the future following assessments of capacity in the pipeline and the security of supply situation.

It is the TSOs' responsibility to maintain and improve the grid infrastructure. The relevant RAs monitor the transmission infrastructure and its development through the Transmission Development Plan for Ireland and Northern Ireland as prepared by the respective TSOs. The SEM Committee notes the work being carried out by respective TSOs to address constraints on the electricity network across the island. The SEM Committee notes that this is a complex area of work and is affected by external factors, such as issues in receiving planning permissions and land acquisitions. The SEM Committee has asked TSOs to provide a detailed update on the delivery of the North South Interconnector (**NS-IC**). The SEM Committee is currently considering the benefits

⁴ Capacity Market Code Version 8, Appendix D: Qualification Data – 5. In respect of each Candidate Unit to which the Application for Qualification relates that includes New Capacity, excepting the quantum of New Capacity which is already Awarded Capacity in respect of the Capacity Year, a proposed Implementation Plan which includes:

(g) a copy of either the Connection Agreement(s) or a Connection Offer(s) from the relevant Transmission System Operator or Distribution System Operator (sufficient to accommodate the increased capacity). Such Connection Agreement(s) or a Connection Offer(s) should confirm either the Registered Capacity (or inverter rating, if applicable) of that New Capacity or the capacity that such New Capacity is permitted to export.

of expanding such reporting process to other key infrastructure projects relating to major constraints in the SEM.

4. Timely Delivery of New Capacity

4.1 Recommendations

The SEM Committee was considering the progression of the following recommendations listed in the Report to incentivise new build projects to be delivered on a timely manner:

- *Ensure the lead time of 4 years for T-4 capacity auctions.*
- *Increase performance securities following an auction.*
- *A permissive approach to requests for extensions from new build projects.*

In addition, EY had also recommended to increase monitoring, with a taskforce involving RAs, TSOs and Government departments to flag issues and take actions to address barriers. They also recommended that performance securities could be lodged prior to an auction taking place.

4.2 Summary of Responses

In general, respondents were in agreement with all the recommendations made by EY under this section, except with the recommendations in relation to performance securities.

iPower Flexible Energy was the only respondent who felt the current lead time of 3 years and 6 months, on average, is enough. All other respondents welcomed the recommendation of increasing lead times to at least 4 years. In addition, Irish Energy Storage Association notes the issue of lengthy timeline to receive a connection offer and then for the connection to be built which can be addressed with more resources to speed up the process.

Four respondents, including the TSOs, supported the recommendation of increasing the performance securities. TSOs stated in their response that if the performance securities were much higher, the terminated capacity would have remained in place, reducing current security concerns. Many respondents did not agree with the two recommendations in relation to performance securities, three of which noted that implementing the two recommendations might lead to lower participation in the auctions. Some of them mentioned that the current levels of performance securities are adequate, while some said that the current levels are already high. EPUKI stated that the purpose of the performance security mechanism is to prevent speculative projects rather than to

secure delivery. ESB proposed to waive termination charges, if the termination of a contract happened due to third party issues.

Only five respondents commented on the *taskforce for increased monitoring* recommendation and there was no strong disagreement among their responses. Energy Storage Ireland noted that without significant reform of the planning system, such a taskforce may not be able to effectively address delivery barriers.

All respondents were in agreement with the *permissive approach to extension requests for new builds*. ART Generation noted that this is not required if sufficient lead time is given for generators and consents are required prior to the auction. Some respondents are also cautious against too permissive approach to extension requests by the SEM Committee. BGE stated that it should be within the RAs' discretion to determine whether extensions are to be granted, if it would mitigate cost impacts for end consumers and that any decision on the extension requests should be published along with the rationale.

4.3 SEM Committee View

The SEM Committee has already taken steps to increase lead times to closer to 4 years and to increase performance securities. The decisions taken to terminate capacity to date should be taken in context (see further discussion below), but the SEM Committee will also consider adopting more “permissive” approach to extension requests on a case-by-case basis.

The T-4 2025/26 and T-4 2026/27 auction results were announced three and a half years before the start of the relevant capacity years. However, the SEM Committee has taken action to ensure that the T-4 2027/28 auction allows a full four years lead time before the start of the capacity year. The SEM Committee, along with the TSOs will seek to allow a minimum of the full 4 years of lead time for new builds in subsequent T-4 auctions for the foreseeable future. To expediate the process, the SEM Committee will consider faster approval of Final Capacity Auction Results.

The SEM Committee has already made two changes to termination payments and performance securities. It increased the termination payments and performance securities relating to any termination event occurring between 13 to 24 months before the beginning of the capacity year since the T-4 2025/26 auction. Also, the termination

payments and performance security rate for any event occurring from the beginning of the capacity year has been increased to €50,000/MW in the T-4 2027/28 auction.

The SEM Committee remains mindful of the need to achieve a balance between the risk of setting termination payments/performance security too low and receiving speculative offers on projects which have a low probability of being able to deliver, against the risk of setting too high a barrier to entry for bona fide investors. The SEM Committee consults on termination payments and performance security levels as part of the parameters consultation before each auction, and the SEM Committee may consider increasing the performance securities further based on evolving evidence of capacity delivery performance over the next few years. In the light of the responses received on the recommendation of *lodging performance security prior to an auction*, the SEM Committee does not propose to progress this recommendation further. The SEM Committee considered this approach and decided that placing a requirement for the performance security to be lodged prior to an auction, as opposed to following the successful award of capacity, may cut down the number of auction offers. Some investors seeking to qualify multiple projects, with the expectation that not all projects will win, and requiring all bidders who may ultimately be unsuccessful or successful, to lodge performance security may cut down the number of bona fide investment proposals, at a time when significant investment is required.

The SEM Committee has approved a CMC Modification relating to third party delays, providing additional flexibility to generators if they are subject to third-party judicial review or third-party planning appeal.

As the TSOs are enhancing their monitoring process of the delivery of new builds and have regular engagements with the developers, the SEM Committee does not find any additional benefit in establishing a taskforce involving RAs, TSOs and Government departments. There are similar engagements already at Departmental level for major projects, and the SEM Committee's current view is that there is limited added value in supplementing these engagements.

ESB Generation and Trading Case Study

Regarding the case study of ESB G&T units that were contracted in T-4 2022/23 auction and later terminated by ESB G&T, the Report mentions that:

ESB requested two extensions for these plants. The RAs granted the first extension as requested and offered a shorter second extension subject to ESB accepting increased termination charges to €30,000/MW per year. ESB chose to terminate their capacity contracts and to rebid projects on those sites (though with a different technology) into the T-3 2024/25 auction and re-contracted at prices that were over €100,000/MW per year greater than the original price.

The SEM Committee carefully considered these extension requests and granted the first extension and offered a three-month second extension with the best available information at the time, keeping in mind the best interests of consumers. ESB rejected the second extension offer and chose to terminate their capacity contracts.

Any extension request submitted to the SEM Committee will continue to be reviewed by SEM Committee on a case-to-case basis.

5. Value of Procured Capacity

5.1 Recommendations

The SEM Committee were considering progressing the following recommendations made by EY in their Report which aim to improve reliability of procured capacity:

- *Recalibrating the administrative scarcity pricing function so that the BM pricing better reflects market scarcity and causes a higher frequency of periods with prices above the RO strike price.*
- *Refining the principle of flagging interconnector actions from the SEM BM prices to drive prices that are more likely to exceed the RO strike price and more reflective of the value of generation.*
- *Greater monitoring of technology performance in stress events to inform future de-rating factor setting.*
- *Applying administrative penalties for non-delivery to plants in specific locations where an amber alert has been raised and a plant is unavailable.*
- *Implement a baseline methodology for assessing the contribution of DSUs in reducing energy demand.*
- *Enable energy payments for DSUs in balancing market.*
- *Determine energy-only stack within balancing market and compensate generators if instructed not to run for system reasons.*

Other EY recommendations under this topic included (1) additional physical checks on existing capacity providers, (2) single derating factor for DSUs regardless of size, (3) provision for secondary trading, and (4) 15-year contracts for capital intensive new builds.

5.2 Summary of Responses

The respondents had mixed views on the recommendations mentioned above. In general, there was disagreement among respondents on the recommendations made for increasing the incentives that Reliability Option (**RO**) provides for generating capacities to be reliable. There was no strong view on any of the recommendations which aimed at better performance of DSUs in the capacity market as well as the ones which might result in creating a level playing field for efficient generators.

There was broad disagreement among respondents on the *recalibration of administrative scarcity pricing function* and *refining the principle of flagging interconnector actions from balancing market prices*. Energia mentioned that amber alerts examined in the Report relates to local scarcities and thus, is weak evidence of a lack of correlation between balancing market prices and system wide scarcities. Energia and Energy Storage Ireland pointed out that the reason behind the current capacity shortfall is not generator availability, and increasing penalties may not result in a desirable outcome. EPUKI said that refining the principle to flag interconnector actions might result in creating artificial scarcity events where units are exposed to difference payments despite being available.

While three respondents agreed with the recommendation of *monitoring of technology performance in stress events to inform de-factors*, four respondents disagreed. Energia noted that the rationale behind basing de-rating factor on performance during stress events is flawed as there is a correlation between low availability and stress events. DRAI mentioned that the recommendation is not viable for DSUs and that the SEM Committee should not use data from a market which is not suitable for DSUs.

There was a general disagreement among respondents on the *application of administrative penalties for non-delivery*. ART Generation commented that the issue of non-availability is already factored in through de-rating and TSOs should procure sufficient de-rated capacity rather than increasing penalties. ESB mentioned that such a penalty significantly changes the level of risk faced by RO holders. Two respondents, BGE and Energia, who commented on the *physical checks on existing providers* were in agreement with the recommendation.

The respondents did not have strong views on the *baseline methodology for assessing DSU performance* and *payment for DSUs for negative generation* recommendations. SSE and Prepay Power stated that the performance of DSUs in a scarcity event needs to be evaluated before implementing energy payments. The TSOs pointed out that assessing the contribution of DSUs in reducing energy demand is not “highly feasible” as mentioned in the Report and pointed out that this would require metered quantity and not dispatch quantity. Some of the respondents who commented on the recommendation in relation to *energy-only stack in balancing market* supported the recommendation but requested more clarity on the details of implementation. RWE Renewables Ireland noted that this action would promote longer-duration battery assets as it reduces such assets’ reliance on DS3 revenues. Three respondents commented

on the *single derating factor for DSUs* and *secondary trading for capacity providers* recommendations and they supported these recommendations.

While there was general support for 15-year contracts for CCGTs and long duration storage systems, the respondents also pointed out the low feasibility of this recommendation as it calls for a change in the state aid and would also increase the risk of locking in high emissions plants into the future. Three respondents stated that longer duration contracts should not be awarded to CCGTs, but only to long duration storage systems. Not many respondents commented on the recommendation relating to a System Service product with longer duration.

5.3 SEM Committee View

The recommendation to *determine energy-only stack within balancing market and compensate generators if instructed not to run for system reasons* was aimed to reduce the RO liability on DSUs and to increase demand response participation in CRM. The SEM Committee recently published a Decision (SEM-23-029) extending the exemption from exposure to Non-Performance Difference Charges to units that are available and in-merit. The SEM Committee notes that this Decision reduces risk to DSUs of unmanageable RO liability and thus, achieving the goals of the recommendation. Thus, the SEM Committee does not propose to progress this recommendation further.

The TSOs recommended changes to the de-rating factors to the SEM Committee through the roll out of the ISAC2 model post the publication of the Report. The SEM Committee has already made changes to the de-rating factors based on this recommendation (SEM-22-044). The SEM Committee, through this document, invites the TSOs to monitor the technology performance in stress events and recommend any further changes to the de-rating factors based on their analysis to the SEM Committee.

The SEM Committee published a Decision (SEM-22-090) on a phased approach to enable DSUs access to energy payments in the balancing market. A Balancing Market Trading and Settlement Code (T&SC) Modification – Mod_02_23 “DSU Energy Payments” – was then raised to implement Phase 1 (or the interim solution) and to extend access to energy payments to DSUs, and to pay for this via the imperfections charge (paid for by all customers).

It was made clear in Mod_02_23 that implementation of the modification would be subject to an impact assessment which would model the impact on resources, systems, and on imperfections charges.

The impact assessment for Mod_02_23 identified two modes of participation for DSUs in the market. Providing energy payments to DSUs that participate in one of these modes would impose significant costs on the final electricity customer and it seems it would not significantly change the behaviour of these DSUs in the market. Therefore, the RAs are considering how to enable payments to DSUs which participate in the market, in a way that provides values to consumers.

The SEM Committee published a consultation paper on the ASP mechanism on 26 July 2023 (SEM-23-047). Following the conclusion of the ASP review, the SEM Committee will also consider the application of administrative penalties for non-delivery to plants in specific locations where an amber alert has been raised and a plant is unavailable.

The SEM Committee will consider the necessity to refine the principle of flagging interconnector actions as the island is expected to progress connection of more interconnectors in the future. The SEM Committee intends to progress implementing the baseline methodology to assess the contribution of DSUs in reducing the energy demand.

6. Conclusion and Next Steps

The SEM Committee is progressing nine recommendations from the Report. A number of these recommendations have already been implemented by both the SEM Committee and the TSOs, with a few remaining under work in progress. Table 3 provides the status of the recommendations that are either implemented or are being progressed by the SEM Committee.

Table 3: Status of recommendations that have been implemented or are being progressed under the SEM Committee

Recommendation	Current Status
Enhanced monitoring process for New Capacity	<p>The TSOs have established a more rigorous monitoring approach to assess the progress on projects, giving an earlier insight into delivery timeline, minimising risk of unforeseen adequacy gaps.</p> <p>The SEM Committee is considering formalising the TSO monitoring process through a CMC Modification.</p>
Increase performance securities following auction	<p>Rates increased for any event occurring 13-24 months prior to the beginning of the capacity year since the T-4 2025/26 auction.</p> <p>Rates increased for capacity contracted in the T-4 2027/28 auction.</p> <p>The figures to be kept under review and may include further changes in subsequent auctions.</p>
A “permissive” approach to requests for extensions from new build projects	<p>The SEM Committee has approved CMC Modifications on third party delays, providing more flexibility to the generators.</p> <p>SEM Committee has previously considered, and will consider, extension requests on a case-by-case basis.</p>
Recalculation of reliability standard	<p>The SEM Committee has published BNE Decision (SEM-23-016) and the VoLL study (SEM-23-072). RS is being reviewed in light of the results of these studies and the RAs are engaging with the Departments in Ireland and Northern Ireland.</p>
Ensure 4 years lead time for T-4 Capacity Auctions	<p>T-4 2027/28 auction to be conducted to allow 4 years lead time.</p> <p>All subsequent T-4 auctions will target at least 4 years lead time.</p> <p>The SEM Committee will consider faster approval of the Final Capacity Auction Results.</p>
Recalibration of the administrative scarcity pricing function	<p>The SEM Committee has published a consultation paper on Administrative Scarcity Pricing (SEM-23-047). The responses received are being reviewed by the SEM Committee.</p>

Recommendation	Current Status
Enable energy payments for DSUs	<p>The SEM Committee has decided to adopt a phased approach to enable DSUs access to energy payments in the balancing market (SEM-22-090).</p> <p>The Balancing Market Trading and Settlement Code (T&SC) Modification – Mod_02_23 “DSU Energy Payments” was proposed to implement phase 1 of SEM-22-090 and to extend access to energy payments to DSUs, and to pay for this via the imperfections charge (paid for by all customers).</p> <p>It was made clear in Mod_02_23 that implementation of the modification would be subject to an impact assessment which would model the impact on resources, systems, and on imperfections charges.</p> <p>The impact assessment for Mod_02_23 identified two modes of participation for DSUs in the market. Providing energy payments to DSUs that participate in one of these modes would impose significant costs on the final electricity customer and it seems it would not significantly change the behaviour of these DSUs in the market. Therefore, the RAs are considering how to enable payments to DSUs which participate in the market, in a way that provides values to consumers.</p>
Implement a baseline methodology for assessing the contribution of DSUs in reducing energy demand.	<p>A baseline methodology will be developed in order to measure the metered demand response at each relevant Individual Demand Site (IDS), and the T&SC will be amended to construct the metered quantity for each DSU from the sum of the metered demand response at each IDS that forms part of the DSU.</p>
Greater monitoring of technology performance in stress events to inform future de-rating factor setting.	<p>Changes to de-rating factors have been made through SEM-22-044 post the publication of the Report.</p> <p>The SEM Committee invites the TSOs to monitor the technology performance in stress events and recommend any changes to the de-rating factors based on their analysis to the SEM Committee.</p>
Greater focus on delivery of infrastructure to enable more competitive all island market and to reduce pressure for new builds to be situated in particular locations.	<p>With the finalisation of the review of the project by the Irish Government, and commencement of the delivery phase, the SEM Committee has requested detailed project updates from TSOs on the delivery of the NS-IC.</p> <p>The SEM Committee will consider expanding this reporting from TSOs to other key infrastructure project relating to major constraints.</p>

The SEM Committee are minded to adopt another five recommendations mentioned in the Report and will take necessary steps to ensure that these recommendations are

consulted upon and progressed following more detailed analysis as required. These recommendations are listed in Table 4. It should be noted that the timeline mentioned in the table is only indicative and the SEM Committee may make changes to this timeline, if other high-priority work needs to be undertaken.

Table 4: Recommendations that SEM Committee intends to progress in coming years.

Recommendation	Implementation Process	Indicative Date
<p>Greater transparency of the target setting through:</p> <p>(A) a PTE assessment of EirGrid recommendations with their findings published.</p> <p>(B) An explanation of the process by which GCS forecasts are translated to the Target Volume to procure in capacity auctions.</p>	<p>(A) The SEM Committee to request a member of the GB PTE to review and propose roles and scopes of the SEM PTE, followed by SEM Committee Consultation and Decision-making process.</p> <p>(B) Information Notes on SEM Committee changes to the TSO Volume Recommendation to be published after every capacity auction.</p>	<p>(A) Aim to consult in Q4 2023 on PTE terms of reference.</p> <p>(B) Information Note on SEM Committee decision on the T-4 2026/27 Target Volume to be published in Q4 2023.</p>
<p>Applying administrative penalties for non-delivery to plants in specific locations where an amber alert has been raised and a plant is unavailable.</p>	<p>Undertake detailed analysis.</p>	<p>To be analysed following conclusion of review of ASP mechanism.</p>
<p>Requirement of new prospective capacity to have all necessary consents to prequalify for auction.</p>	<p>CMC states that a valid Grid Connection Agreement/Offer is required for a capacity to be qualified for any capacity auction.</p> <p>Considering the security of supply developments in Ireland, CRU to gradually phase out issuing Grid Directions to EirGrid.</p> <p>UR currently require New Capacity to have a valid Grid Connection Offer to prequalify for capacity auction.</p>	<p>T-4 2029/30.</p>

Recommendation	Implementation Process	Indicative Date
Refining the principle of flagging interconnector actions from SEM BM prices to drive prices that are more likely to exceed the RO strike price and more reflective of the value of generation.	Detailed analysis followed by SEMC Consultation and Decision-making process.	Aim to consult by Q4 2024.
