



Single Electricity Market

(SEM)

Capacity Market Code Modifications

Workshop 45

CMC_16_25 and CMC_17_25

Decision Paper

CMC_16_25: CRM De-rating Factors for DSU

CMC_17_25: Drawdown of Performance Security

SEM-26-013

18 March 2026

EXECUTIVE SUMMARY

The purpose of this decision paper is to set out the decisions relating to two of the three Proposed Modifications to the Capacity Market Code (CMC) discussed at Workshop 45, held on the 17 September 2025:

CMC_16_25: CRM De-rating Factors for DSU

CMC_17_25: Drawdown of Performance Security

CMC_18_25 remains under RA consideration; the RAs will issue a decision in the coming months. The decisions within this paper follow on from the associated consultation ([SEM-25-057](#)), which closed on 14 November 2025.

A consultation period followed where 10 responses were submitted, none of which were confidential.

Summary of Key Decisions

Following consideration of the proposals and the responses received to the consultation, the SEM Committee have decided:

Modification	Decision	Implementation Date
CMC_16_25: CRM De-rating Factors for DSU	Not make a Modification	N/A
CMC_17_25: Drawdown of Performance Security	Make a Modification	Effective upon publication

Contents

EXECUTIVE SUMMARY	2
1. Overview	4
1.1. Background.....	4
1.2. Responses received to Consultation	5
2. CMC_16_25 – CRM De-Rating Factors for DSUs	6
2.1. Consultation Summary as Presented By DRAI.....	6
2.2. Responses to modification Proposal	6
2.3. SEM Committee Decision	9
3. CMC_17_25 – Drawdown of Performance Security	11
3.1. Consultation Summary as Presented by the SOs	11
3.2. Responses to Modification Proposal.....	11
3.3. SEM Committee Decision	12
4. Next Steps	12

Appendix A Approved Legal Drafting

1. OVERVIEW

1.1. BACKGROUND

1.1.1. The SEM CRM detailed design and auction process has been developed through a series of consultation and decision papers, all of which are available on the SEM Committee's (SEMC) website. These decisions were translated into legal drafting of the market rules via an extensive consultative process leading to the publication of the Trading and Settlement Code (TSC) and the Capacity Market Code (CMC). Current versions of the CMC and the TSC are published on the SEMO website.

Process and Timeline for these Modification Proposals

1.1.2. On the 05 August 2025, the DRAI submitted a Modification Proposal (CMC_16_25), on 03 September 2025 the SOs submitted a Modification Proposal (CMC_17_25) and, on 05 September, EPUKI submitted one Modification Proposal (CMC_18_25), all under the terms of B.12.4 of the CMC. These were marked as Standard.

1.1.3. The RAs reviewed all Modification Proposals and determined that none were spurious as per B.12.6.1 of the CMC.

1.1.4. On the 29 September 2025, the RAs determined the procedure to apply to the Modification Proposals. An overview of the timetable is as follows:

- i. The System Operators convened Workshop 45 where the Modification Proposals were considered on 17 September 2025.
- ii. The System Operators, as set out in B.12.7.1 (j) of the CMC, prepared a report¹ of the discussions which took place at the workshop, provided the report to the RAs, and published it on the Modifications website promptly after the workshop.
- iii. The RAs then consulted on the Modification Proposals from the date of publication of the consultation until the closing date of Friday, 30 May 2025.
- iv. As set out in B.12.11.6, the RAs shall make their decision as soon as reasonably practicable following conclusion of the consultation and publish a report in respect of their decision. The purpose of the decision paper is to set out the decision relating to the Standard Modification Proposal discussed during Workshop 36 to:
 - a) Make a Modification;
 - b) Not make a Modification; or
 - c) Undertake further consideration in relation to the matters raised in the Modification Proposal.

¹ [Capacity Modifications Workshop 45 Report.pdf](#)

1.1.5. This decision paper provides a summary of the consultation proposals and sets out the SEM Committee's decision.

1.2. RESPONSES RECEIVED TO CONSULTATION

1.2.1. This paper includes a summary of the responses made to Capacity Market Code Workshop 45 Consultation Paper ([SEM-25-057](#)) which was published on 13th October 2025 and closed on 14th November 2025.

1.2.2. A total of 10 responses were received to consultation SEM-25-057 with none marked as confidential. The responses are from:

- Energia
- ESB Generation and Trading (ESB GT)
- SSE
- Bord Gáis Energy (BGE)
- EP UK Investments (EPUKI)
- FERA
- PHG
- EirGrid and SONI (SOs)
- Enel-X
- Demand Response Association of Ireland (DRAI)

2. CMC_16_25 – CRM DE-RATING FACTORS FOR DSUS

2.1. CONSULTATION SUMMARY AS PRESENTED BY DRAI

- 2.1.1. This Modification Proposal seeks to introduce a new means for calculating De-Rating Factors (DRFs) for Demand Side Units (DSUs) according to their projected availability.
- 2.1.2. The Modification Proposal seeks to transition from Technology Class DSU DRFs, which use historical availability data for an average of all DSUs and are a function of size and hours of demand reduction, to instead requiring the TSOs to publish a new DRF table, in which DRFs would be function of an 'availability metric' and hours of demand reduction (no longer being a function of size). DSU DRFs would not be based on historical availability, but on the DSU participant's projected availability.
- 2.1.3. DSUs would then select a DRF, taking on a commitment to deliver the promised level of availability, with a new Generator Performance Incentive (GPI) created with the intention of ensuring DSUs follow through on this commitment. The GPI would be calculated by multiplying the quantity by which the DSU has underachieved their availability by the capacity market clearing price by an incentive multiplier (which the proposer suggests setting at 1.1).

2.2. RESPONSES TO MODIFICATION PROPOSAL

- 2.2.1. Of those that commented, five respondents were not supportive of the proposal in their responses, three were supportive of the proposal and two were supportive of the principle but raised concerns with the modification.
- 2.2.2. The DRAI, as the proposer, flags in its response the implications of under- and over-recognising the quantity of capacity provided to the system and highlighted the efforts to calculate capacity required accurately. DRAI also noted that the technology class DRF does not encourage higher availability which leads to lower DSU de-rating, in turn leading to lower DSU availabilities.
- 2.2.3. DRAI is also of the opinion that applying this modification only to DSU providers means the amount of analysis required in the context of this modification is appropriate. DRAI outlined the differences between the current and proposed process and clarified that the TSOs would follow the same DRF methodology they currently follow but the TSOs would need to provide DRF tables based on varying availabilities.
- 2.2.4. DRAI further justifies that this tailored approach should apply as DSUs are unique in the heterogeneity of portfolios, highly variable availability and the downward pressure on DRFs from the current methodology, and suggested that SEMC commit to a second phase to roll out unit-specific DRFs to other technologies but to pilot this approach for DSUs only.
- 2.2.5. Enel-X note in their response that DSUs are not being paid for the energy they deliver when dispatched except when the strike price is exceeded and consider that this is the reason for the poor DSU availability. Enel-X also note that, even after the introduction of energy payments to DSUs, the DRFs will continue to be based on historical availability and DRFs will continue to be inaccurate. Enel-X note that after the introduction of energy payments, this modification proposal

would remove the need to make centralised assumptions and would place the problem on the DSUs to be held accountable via the GPI.

- 2.2.6. Enel-X is also of the opinion that DSUs lose money every time they are dispatched and making themselves available forces them to lose money so there is no upside to being available outside of times of strike price being exceeded. Enel-X considers that DSUs have been forced to offer inflated prices in recent auctions, above the clearing price, and that much lower DSU participation would have been seen in recent auctions if DSUs did not have the opportunity to be awarded contracts above the clearing price.
- 2.2.7. Enel-X also questions the correctness of the availability metrics that have been used by the TSOs.
- 2.2.8. Enel-X is of the opinion that the implementation of this modification is not a radically new approach so full rethinking of the approach to derating is not necessary and included some considerations on how to apply the GPI.
- 2.2.9. Enel-X also considers that this proposal should only apply to DSUs for a number of reasons: technology class de-rating makes less sense to DSUs than to others, DSUs are the most responsive to financial incentives, problem with DSU availability due to the lack of energy payments, and providers of other types of capacity may not be willing to guarantee particular levels of availability.
- 2.2.10. Enel-X proposes an availability metric that is weighted towards periods where the unit is likely to be dispatched as a unit not being available at a time when it was not going to be used anyway has no detrimental impact on the system. Weighting factors proposed are the Loss of Load Probability and the Capacity Quantity Scaling Factor after some adjustments.
- 2.2.11. EPUKI is supportive of the principle of the modification and its extension to other technology types and supports the view that existing DRFs are not reflective of the actual availability of a unit. EPUKI is also of the view that lower DRFs erode the investment case for New Capacity and higher and more accurate DRFs would support investment in New Capacity.
- 2.2.12. EPUKI notes that industry has raised the issue of inaccurate DRFs and a need for a review of the methodology and asks for further information on the development of this work. EPUKI also notes the potential utilisation of the INCTOL which would appear to address the issue in question and flags the use of DECTOL allowed for DSUs as precedence.
- 2.2.13. BGE acknowledges the intent for the modification to address an issue in the SEM regarding DSU de-rating factors and accepts the concern that the current methodology penalises high-performing DSUs. BGE also agrees with the objective to reverse the current trend and provide better incentives for high-performing units.
- 2.2.14. However, BGE notes that self-declaring 'projected availability' will be difficult to verify. BGE highlights the importance of assessing the risk of unintended consequences and welcomes the request for an Impact Assessment to be provided by the TSOs on unit-specific DRFs for all technologies, which BGE asks to be made public before a decision is made.

- 2.2.15. SSE shares concerns with the DRF calculation and volatility between auctions, and has further concerns that this proposal may lead to unintended consequences. SSE is of the opinion that current punitive DRFs do not accurately reflect the expected performance of units in the capacity market and should be reviewed, ideally for all technologies, and proposes the RAs to consider consulting on the methodology.
- 2.2.16. SSE would support projected availability in lieu of historical availability for all units and suggests plant performance factors (load factor, investment, refurbishment, plant changes and profile of running) that could be considered when projecting future availability. SSE proposes the use of INCTOL as it can be applied to all technologies, incentivise new capacity and contribute to security of supply.
- 2.2.17. Energia is of the opinion that it would be inappropriate to single out DSUs for a review of the de-rating methodology and flags further aspects of DSU participation in the CRM which are not addressed in this modification and require attention if a DRF review is undertaken.
- 2.2.18. Energia notes that the modification risks overstating DSU availability, which could in turn lead to a material capacity shortfall. A DRF methodology review would require significant analysis, thorough industry engagement, policy development and it should not be selectively reviewed per technology type.
- 2.2.19. Energia is of the opinion that CMC_16_25 is inconsistent with code objectives A.1.2.1 (b), (d), (f), and (g).
- 2.2.20. ESB GT recognises the aim of this proposal to address longstanding concerns with demand response but does not support the modification proposal on the basis that it would reflect the inequitable treatment of technology types within the Capacity Market. ESB GT recommends the advancement of the programme of work to allow DSU to earn revenue in the energy markets.
- 2.2.21. ESB GT is of the opinion that it is unclear whether the period of one month proposed for calculating the GPI would provide sufficient assurance that the DSU is able to meet its declared availability for the full duration of its contract and maintain availability. ESB GT believes that further investigation into the data currently provided to TSOs is needed to determine whether this data can be used for the baselining and performance monitoring of demand response.
- 2.2.22. ESB GT supports the introduction of an INCTOL provision and unit-specific DRFs and noted the upcoming State aid approval provides an opportunity to carry out a DRF review.
- 2.2.23. FERA and PHG are of the opinion that this proposal is not consistent with Capacity Market Code objectives of transparency and proportionality. They consider the proposal relies on unverifiable projections of availability and notes the scenario of qualification in a T-4 auction where Individual Demand Sites (IDS) may not be the same at qualification and at go-live.
- 2.2.24. FERA and PHG also note that DSU and IDS commercial arrangements are confidential and they opine that this modification should apply to all technology classes if implemented, not exclusively DSUs.

- 2.2.25. FERA and PHG argue the proposal lacks clarity on the treatment of new IDs or newly qualified units, transfer of IDs between DSUs and the substantial completion assessment. They also note that the reference to 'new entrants' could mean the introduction of additional technologies if they perform differently to existing DSUs which should be dealt with in a separate modification.
- 2.2.26. On the legal drafting, FERA and PHG note that no formula of data standard is given to reliably calculate "projected availability" in C.1.1.2 (g), which introduces ambiguity.
- 2.2.27. The SOs are of the opinion that this modification would constitute undue discrimination between Participants, contrary to Code Objective (f), as it is not evident why unit-specific DRFs should apply to DSUs only.
- 2.2.28. The SOs have concerns regarding potential impacts regarding incentives and unintended consequences that have not been sufficiently addressed in the proposal form and highlight the importance of ensuring that the reliability of units can be assessed accurately and the risk of overstating a unit's availability without sufficient visibility.
- 2.2.29. The SOs are of the view that a wider review of the DRF methodology is required for implementation of unit-specific DRFs and concur with SEMC's view that changes to the DRF methodology require significant policy analysis and development. The SOs will further engage with the RAs on this wider review and analysis but would not support this modification for just one technology class.
- 2.2.30. The SOs also note that the proposed legal text does not appear to give effect to the intent of the modification.

2.3. SEM COMMITTEE DECISION

- 2.3.1. The SEM Committee welcomes the feedback provided by participants both as part of the Workshop and through the consultation process.
- 2.3.2. The SEM Committee recognises the concerns of Market Participants surrounding the current DRF methodology and acknowledges that there are shortcomings associated with the use of technology class DRFs but reiterates that a change to the DRF methodology, such as the introduction of unit-specific DRFs based on self-declared availability, even if it was only applicable to DSUs, would be considered a significant methodological change.
- 2.3.3. The proposed modification is, therefore, inconsistent with the approved DRF methodology and any change to the methodology would need to be assessed in detail to prevent unintended consequences and would require significant policy analysis and development.
- 2.3.4. In response to comments supporting this modification to obtain higher DRFs to support investment in New Capacity, the SEM Committee recognises the impact of higher DRFs in incentivising investment but considers that the core objective of the DRF methodology is to provide an accurate representation of the adequacy contribution.
- 2.3.5. While the SEM Committee acknowledges the arguments made around the unique qualities of DSUs, units in other technology classes may also have availabilities that are considerably different to the technology class average and thus, applying unit-specific DRFs to DSUs alone may lead to

an unequal playing field. Full consideration of moving to unit-specific DRFs for all technology classes is therefore currently considered to be a more appropriate approach.

- 2.3.6. Even though some respondents suggested that availability of DSUs is not currently being incentivised, other respondents consider that these and other aspects of DSU participation should be dealt with separately, for instance, through advancing energy payments for DSU participation in the energy markets. The SEM Committee understands the importance of this workstream which it has continued to progress and is aiming to publish a decision on DSU energy payments in March 2026 (SEMC Annual report 2024-2025).
- 2.3.7. The SEM Committee notes concerns expressed in relation to the scenario where energy payments for DSUs are introduced and DRFs continue to be based on historical performance that is no longer representative of an improved availability. The SEM Committee will evaluate suitable approaches when appropriate.
- 2.3.8. The SEM Committee sought further information on the design of this proposal, specifically on how a DSU would nominate its own availability metric. The proposer compared, in its response, the difference between the current and proposed process but did not detail how the availability metric would be derived. The SEM Committee notes proposals made by other respondents on availability metrics, use of the GPI, and plant performance factors for projecting future availability.
- 2.3.9. For clarity, in relation to a comment made by a respondent on the average availability calculation, the SOs have confirmed that only the availability of DSUs with awarded capacity is used for the determination of average availability for the category and that a weighting mechanism applied to time-of-day availability is not currently in use. The SEM Committee notes that, from its analysis last year (SEM-25-040), there is no evidence to suggest that DSU availability has been significantly better at times of stress so a weighting mechanism would be of limited value. For the avoidance of doubt, the DRF calculation methodology ([ISAC2 - 5th October 2022](#)) was published with the consultation paper SEM-22-075 and decision paper SEM-22-097.
- 2.3.10. The SEM Committee shares concerns around the proposal relying on unverifiable or inaccurate projections of availability and is, therefore, not satisfied that a robust and accurate process is being proposed for DSUs to nominate their own availability metric and calculate a GPI that has thoroughly considered and protected against potential unintended consequences.
- 2.3.11. Some respondents flagged concerns around the treatment of IDs that are different between qualification and go-live and the SEM Committee shares this concern and notes that the issue of reconfiguring of individual sites and how this would interact with the GPI is not dealt with in the proposal.
- 2.3.12. As an alternative solution, some respondents supported the potential utilisation of INCTOL to address this issue. The SEM Committee decided not to progress a non-zero INCTOL in the 2028/29 T-4 auction (Decision Paper SEM-24-028) due to fundamental concerns that were expressed in relation to the operational aspects on this mechanism. These concerns remain.
- 2.3.13. The SEM Committee notes the suggestion made by one respondent for a DRF review to be included as part of work on the next State aid application. The SEM Committee agrees with this

approach and is considering the approach to DRFs in the CRM review, which forms part of the CRM Development Programme.

- 2.3.14. The RAs will engage with the SOs in any wider revision of the DRF methodology, including evaluation of unit-specific DRFs for all technologies. The RAs note that all TSO feedback provided in relation with this proposal is published in their response.
- 2.3.15. Based on the reasons outlined above, the SEM Committee has decided not to make a Modification.

3. CMC_17_25 – DRAWDOWN OF PERFORMANCE SECURITY

3.1. CONSULTATION SUMMARY AS PRESENTED BY THE SOS

- 3.1.1. This Modification Proposal seeks to amend the CMC to provide an additional option, by providing that a defaulting Participant may authorise the SOs to draw down the Participant's Performance Security without waiting for an issued invoice payment period to elapse, thus avoiding the need for the SOs to make a formal call/demand to draw down on the participants Performance Security.
- 3.1.2. The proposers of the Modification Proposal state that the proposed option is elective and would reduce the administration burden and time require for a Participant to satisfy Termination Charges due by authorising the SOs to draw down their Performance Security Cash Reserve Account.

3.2. RESPONSES TO MODIFICATION PROPOSAL

- 3.2.1. Feedback to this Modification Proposal was generally supportive of the Modification Proposal.
- 3.2.2. SSE welcomed this elective option and stated that it is awaiting a detailed guidance from the SOs around the authorisation process to ensure that they are clear and implementable.
- 3.2.3. The DRAI stated that it is supportive of the Modification Proposal.
- 3.2.4. BGE stated that it is supportive of the Modification Proposal and agreed that the change will help streamline the termination process and reduce administrative burden.
- 3.2.5. BGE also opined that the affected party should be notified reasonably in advance if its Performance Security is to be accessed and believed that this small change would not materially impact the intended benefits of the proposal but would ensure transparency and fairness.
- 3.2.6. Energia stated that it is supportive of the Modification Proposal. Energia further opined that the authorisation mechanism should be clearly defined and communicated to market participants well in advance of implementation, and that participants could have discretion whether to opt in to this authorisation.
- 3.2.7. EPUKI stated that it is supportive of this Modification Proposal on the basis that drawdown may not be carried out without prior authorisation from the affected participant.

- 3.2.8. EPUKI requested clarity on the timelines around drawdown commencement.
- 3.2.9. ESB GT stated that it is supportive of the Modification Proposal and believed that it is unlikely to have any significant impact on the wider market.
- 3.2.10. FERA and PHG both supported the overall concept of improving the drawdown process but did not support a blanket roll out of this mechanism without expressed participant authorisation. Both sought a clear definition of 'authorisation' and provided a suggested definition in its response.
- 3.2.11. The SOs stated in their response that the preference is not to implement a 'blanket' approach regarding provision of Participant authorisation. The SOs preference at this stage is for explicit authorisation from the participant is to be provided on a case-by-case basis.
- 3.2.12. The SOs also stated support to amend the legal text by the RAs to clarify the specific details of the process to give effect to the modification.

3.3. SEM COMMITTEE DECISION

- 3.3.1. The SEM Committee welcomes feedback from participants from both the initial workshop and the subsequent consultation period.
- 3.3.2. The SEM Committee also welcomes any developments in improving the efficiency of SO processes.
- 3.3.3. The SEM Committee consider that the legal drafting makes clear that the drawdown process requires explicit authorisation from the participant and that the process cannot begin until such authorisation is granted. The SEM Committee deems it reasonable that this process occurs on a case-by-case basis, following authorisation from the participant.
- 3.3.4. Nonetheless, the SEM Committee notes feedback from some respondents regarding further clarity on the authorisation process and timelines between authorisation and drawdown commencement. Whilst the SEM Committee is satisfied to approve this Modification Proposal and legal drafting, it has engaged with the SOs on these points. Following the publication of this decision, the SOs will issue further information with guidance on the process around this change and how it will operate in practice once authorisation has been given.
- 3.3.5. Based on the reasons outlined above, the SEM Committee has decided to make a Modification.

4. NEXT STEPS

- 4.1.1. The SEM Committee will make the proposed Modification of CMC_17_25 using the draft legal text accompanying this decision paper.
- 4.1.2. All SEM Committee decisions are published on the SEM Committee website: www.semcommittee.com.