Single Electricity Market

(SEM)

Capacity Market Code

Workshop 42 Decision Paper

CMC_02_25:	**Separate De-Rating Factor for New Vs. Existing Capacity**
CMC_03_25:	**Clarification of Proportion of Delivered Capacity for multiple tranches**

SEM-25-035

16 July 2025

EXECUTIVE SUMMARY

The purpose of this decision paper is to set out the decisions relating to two proposed Modifications to the Capacity Market Code (CMC). These Modification Proposals were discussed at Workshop 42, held on 20 March 2025:

- **CMC_02_25**: Separate De-Rating Factor for New Vs. Existing Capacity
- **CMC_03_25**: Clarification of Proportion of Delivered Capacity for multiple tranches

The decisions within this paper follow on from the associated consultation (SEM-25-013), which closed on 30 May 2025.

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

CMC_01_25 was also discussed at Workshop 42 and the SEM Committee expects to publish a decision on this proposal by the end of August.

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_02_25:	Separate De-Rating Factor for New Vs. Existing Capacity	Not make a Modification	N/A
CMC_03_25:	Clarification of Proportion of Delivered Capacity for multiple tranches	Make a Modification	Effective upon publication

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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 06 March 2025, EPUKI submitted two Modification Proposals (CMC_01_25 and CMC_02_25), and the System Operators (SOs) submitted one Modification Proposal (CMC_03_25) under the terms of B.12.4 of the Capacity Market Code (CMC). This decision paper deals with CMC_02_25 and CMC_03_25 only. The RAs expect to issue a decision on CMC_01_25 before the end of August.

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 14 March 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 42 where the Modification Proposals were considered on 20 March 2025.

ii. The System Operators, as set out in B.12.7.1 (j) of the CMC, prepared a report[1] 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 Modification Proposals 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 42 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 42 Consultation Paper (SEM-25-015) which was published on 19 April 2025 and closed on 20 May 2025.

1.2.2. A total of nine responses were received to consultation SEM-25-015 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
- EirGrid and Soni (TSOs)
- Bord na Mona (BnM)
- iPower

2. MODIFICATION DECISIONS

2.1. CMC_02_25 – SEPARATE DE-RATING FACTOR FOR NEW VS. EXISTING CAPACITY

2.1.1. This Modification Proposal (raised by EPUKI) seeks to include 'Age of Unit' as a variable in the calculation of de-rating factors (DRFs). The proposer argues that this will more accurately reflect the expected performance of units in the Capacity Market.

2.1.2. EPUKI also noted in its Modification Proposal that bespoke DRFs for each auction might be complex and challenging and therefore, offered to categorise plants based on age in five or ten-year blocks.

2.2. RESPONSES TO MODIFICATION PROPOSAL

2.2.1. Feedback to this Modification Proposal was mixed. Many of these responses did not support the proposal, with concerns expressed about the appropriateness of using 'age of unit' as an accurate metric to reflect plant reliability. However, numerous respondents signalled support for changing the DRF Methodology.

2.2.2. EPUKI stated in its consultation response that the primary objective of this Modification Proposal is to enable newer units to distinguish themselves from older units, thereby sending a stronger investment signal for New Capacity and ensuring that there is no undue discrimination in accordance with the TSOs' regulatory requirements. It also noted industry concerns about implementing this Modification Proposal as raised at the workshop and instead, requested that a separate DRF be applied for New Capacity versus Existing Capacity to ensure a viable investment case for New Capacity. EPUKI deemed it essential to have different DRFs for New capacity versus Existing Capacity that do not necessarily revolve around the age of the unit, believing that this approach aligns with previous industry efforts to implement non-Zero INCTOL parameters.

2.2.3. EPUKI expressed its view that the current DRF methodology is not fit for purpose. It noted its understanding that the SEMC's decision (ahead of the T-4 2028/29) not to incorporate INCTOL was made due to operational concerns, rather than due to the rationale of the policy, and argued that this is evidence of an acknowledgement from SEMC, in EPUKI's view, that the methodology is not fit for purpose. EPUKI also noted industry concerns about the current level of DRFs not reflecting the current state of play and that using historical data of older plants to assign DRFs to new units is inappropriate and dampens the investment case for New Capacity.

2.2.4. EPUKI also addressed numerous concerns raised by industry. Concerning DRFs for refurbished units, EPUKI stated its position that such units could address these costs via a Unit Specific Price Cap (USPC) application. EPUKI also stated that it believes that this Modification Proposal is not discriminatory when applying different DRFs for New versus Existing Capacity, instead it stated that this change was intended to facilitate new investments. EPUKI also stated that as the DRF

methodology is calculated outside of the CMC, it does not agree with the SEMC's position that this proposal would constitute a significant change to the CRM design. It stated that it considers that incorporating age of unit into derating factors is an incremental refinement and not a fundamental redesign of the CRM framework.

2.2.5. BnM outlined its opinion that an uplift in DRFs for new plants and refurbished plants is needed where the latter DRF would be two-thirds lower, reflecting the difference in investment thresholds of 3:1. BnM also remarked that the current Capacity Market rules fail to facilitate the delivery of all the required technology types to meet net zero, that current DRFs do not reflect the reliability of new units providing adequacy and dampen the investment case for such units. BnM raised a third point that any adjustment of DRFs should differentiate between the ICIRT and NCIRT and provided a formula in its consultation response.

2.2.6. BnM also noted its interpretation that SEM-23-001 described modifications which purport to enhance security of supply should be particularly respected and, therefore, SEMC should only be minded to reject such proposals after careful consideration. BnM opined that the SEMC 'minded to reject' position did not sufficiently recognise what it considered was a precedent.

2.2.7. Energia was opposed to this Modification Proposal, writing that using age of a unit in assigning DRFs would not be a fair or valid indicator of performance and reliability. It further elaborated that certain older units can perform just as well as newer ones, particularly if they have been recently upgraded or refurbished.

2.2.8. Energia stated that it considers that if this Modification Proposal were to be accepted, it would create a distortion in the Capacity Market between existing and new units, giving new entrants an advantage without consideration of their deliverability or proven operational track record. It noted that new units have struggled to deliver in the Capacity Market, resulting in a gap between procured and actual capacity available, which could increase upon acceptance of this Modification Proposal.

2.2.9. FERA acknowledged the intention behind the Modification Proposal was to improve accuracy in DRF calculations. FERA opined that this change may be more directly applicable to conventional generation units and that current DRFs do not reflect the real performance or reliability of many units, particularly DSUs.

2.2.10. FERA also stressed its opinion that there should be a more comprehensive review of DRF methodologies across all technologies, including demand side participation.

2.2.11. BGE were not supportive of this Modification Proposal and described the proposed change as a "gross oversimplification". However, BGE expressed its view that the current DRF methodology is not fit for purpose. It outlined that the current methodology is an even greater oversimplification as all generators of the same type regardless of age, run hours, starts, investment spend, refurbishment etc. are awarded the same DRF, impacting negatively on newer and better maintained units. BGE also questioned if the DRF methodology could be revised to account for recent reliability rather than treating all units the same regardless of age and actual reliability.

2.2.12. SSE also agreed that current DRFs do not reflect the expected performance of newer or older units in the Capacity Market and agreed with the Modification Proposal's rationale to modify the DRF process to make it more transparent, practical and implementable. SSE caveated this statement by commenting that using age of unit is not an accurate metric to calculate DRFs and deemed it an oversimplification and an inaccurate way to represent reliability.

2.2.13. SSE proposed that the current methodology should focus on factors such as investment, refurbishment and plant changes which improve reliability. It also said that the current methodology of using historical availability and is not always an indication of future reliability.

2.2.14. ESB GT did not support this Modification Proposal and stated that it was not consistent with the CMC objectives as the change does not propose an evidence-based mechanism for a fairer and more efficient de-rating mechanism. ESB GT understood the intended purpose of the Modification Proposal but noted that age of plant is not a good indication of performance and availability. ESB GT noted that two identical generators commissioned at the same time could have different performance due to historic running patterns and maintenance regimes.

2.2.15. ESB GT also stated it would support a unit-based DRF, allowing the generator to set their own DRF with an incentives-based model to encourage realistic ratings.

2.2.16. The SOs noted in their consultation response the concerns expressed by industry at Workshop 42 and noted their support for the RAs' 'minded to reject' position regarding this Modification Proposal. The SOs further outlined that there are complexities in assessing performance and/or reliability of individual units under technology classes. The SOs also stated that they agree with the RA position that amending the DRF methodology would constitute a significant change to the CRM, requiring detailed design, policy analysis and development.

2.3. SEM COMMITTEE DECISION

2.3.1. The SEM Committee welcomes feedback from participants from both the initial workshop and the subsequent consultation period.

2.3.2. The SEM Committee acknowledges industry's dissatisfaction with the current level of DRFs. As noted at Workshop 43 Part B, the RAs considered there was a need to review certain aspects of the DRF calculations ahead of the T-4 2029/30 auction. The RAs undertook an assessment of DSU and battery availability data provided by the SOs, and this analysis will help inform the SEM Committee's decision-making ahead of the publication of the Initial Auction Information Pack, which will contain the DRFs for the next auction.

2.3.3. The RAs acknowledge that there are shortcomings associated with the use of technology class DRFs, some of which were recognised in the CRM design, and which have been noted by the responses to this consultation. Whilst industry's responses have focused on the drawbacks for better-performing units from relying on technology class DRFs, it is also true that under-performing units may benefit from the current arrangement. Infrequent RO events may mean that such units are not incentivised to offer a lower volume of capacity in reflection of their poor performance given the low risk of being subject to non-performance difference charges. In addition, the RAs consider that technology class DRFs may pose particular concerns for certain

technologies, such as demand side response, which are diverse in terms of the type of load reduction and the number of site(s) aggregated to form a DSU.

2.3.4. The SEM Committee therefore intends to explore possible changes to the DRF methodology, which could include unit-specific DRFs as referenced in some responses, and is engaging with the SOs to better understand the impact of any such change. Nonetheless, the SEM Committee recognises that that there are clear challenges posed by any potential implementation of unit-specific DRFs, and these would require careful consideration and mitigation, along with detailed analysis and design. Implementing a change of this magnitude is not possible in advance of the next auction.

2.3.5. In line with most industry responses to this consultation, the SEM Committee is concerned with the design of this Modification Proposal and its implications if accepted. Including 'age' as a key variable in the calculation of DRFs potentially raises questions around discrimination between new units and existing units given that the SEM Committee has not had sight of any robust evidence to support this different treatment.

2.3.6. The SEM Committee is also concerned by the lack of detailed analysis and policy development included in this Modification Proposal. The proposal is scant on detail in terms of how it would operate; for example, would the proposal create various categories of DRFs based on age in years, what data would new technologies be based on given they would not have any historical data, and how would refurbished or DSU capacity be classified in terms of age? As noted above, open questions remain on the effectiveness of using age of unit as a variable given that there may not be robust correlation between age of unit and reliability. Numerous respondents both in the workshop and consultation responses signalled that numerous other factors are at play in how effective a plant is contributing to adequacy, and the SEM Committee agrees that this change represents an oversimplification.

2.3.7. Furthermore, concerning the proposal by one respondent to apply DRFs based on whether the unit is 'new or refurbished', this does not allay the SEM Committee's concerns about using age as a key variable given that it does not reflect the true contribution of a plant to adequacy. Differentiating DRFs based on investment threshold would not be an appropriate way to set DRFs. The SEM Committee would also like to clarify the reference made to SEM-23-001. This decision paper related to the introduction of J.5.5 and J.5.6, which allow applications for extensions due to third-party planning appeals or judicial reviews. The paper noted that there were a number of projects at risk due to such delays and that the objective of promoting security of supply needed to take priority. The SEM Committee does not consider that its 'minded to' position on this CMC_02_25 conflicts with this view.

2.3.8. Based on the reasons outlined above, the SEM Committee has decided to not make a Modification.

2.4. CMC_03_25 – CLARIFICATION OF PROPORTION OF DELIVERED CAPACITY FOR MULTIPLE TRANCHES

2.4.1. This Modification Proposal (raised by the TSOs) seeks to provide clarity in the treatment of multiple tranches of Awarded New Capacity in the calculation of Proportion of Delivered Capacity (PDC) across multiple auction years.

2.4.2. The Modification Proposal, according to the proposer, does not change the calculation of Proportion of Delivered Capacity except as outlined in CMC_12_24, presented by ESB GT at Workshop 40.

2.4.3. The Modification Proposal seeks to rework section G.3.1.3 to delete the current text and move the definition of De-Rated Grid Code Commissioned Capacity (DRGCCC) from G.3.1.4A to this section and introduce an updated formula in G.3.1.4 for the treatment of PDC (as seen in Appendix A. Lastly, sections G.3.1.4A and G.3.1.5 are proposed for deletion.

2.5. RESPONSES TO MODIFICATION PROPOSAL

2.5.1. The SEM Committee welcomes feedback from participants from both the initial workshop and the subsequent consultation period.

2.5.2. Feedback to this Modification Proposal was broadly supportive.

2.5.3. BGE signalled support for the Modification Proposal but provided a worked example where it demonstrated an issue which it stated could lead to gaming opportunities. Further information on this worked example can be found in the attached consultation response.

1.5.3. iPower supported the Modification Proposal, commenting that it would clarify the current rules for calculating PDC across multiple tranches and give more certainty to participants on how their delivery will be assessed. However, iPower also identified that DRFs will vary between tranches and suggested using non-derated/installed MWs instead of derated MW to assess this.

1.5.4. Energia noted the technical nature of the Modification Proposal and its objective of ensuring consistency and alignment with existing processes, and expressed support for the SOs improving transparency and maintaining integrity of delivery assessments in the Capacity Market.

1.5.5. ESB GT stated that it considers the Modification Proposal to be consistent with CMC objectives (b), (c), (d) and (f). It also expressed its understanding that the proposal achieves the objective of enabling multiple tranches of Awarded New Capacity to be awarded fairly considering incremental New Capacity awarded to an existing unit that was physically delivered. Under the current rules of the CMC, a unit may be unable to achieve Substantial Completion. It also remarked that it had submitted CMC_12_24 (withdrawn) to solve this issue, which the present Modification Proposal has incorporated into its structure.

1.5.6. FERA supported the Modification Proposal and said it was useful and helpful to update the current CMC rules in for calculating PDC across multiple tranches. It also noted that since different DRF were used in the numerator and the denominator, this could be an inconsistent application of DRFs for awarded volume for different tranches.

1.5.7. The SOs reaffirmed their view that this Modification Proposal is consistent with and fulfils the CMC objectives.

2.6. SEM COMMITTEE DECISION

2.6.1. The SEM Committee welcomes feedback from participants from both the initial workshop and the subsequent consultation period.

2.6.2. The SEM Committee considers that this Modification Proposal delivers clarity to the CMC concerning the treatment of calculating the PDC and prevents incremental capacity from being terminated due to a decline in derating factors between auctions. This adjustment to the Code is timely in encouraging market participants to refurbish existing plants, which in some cases may include the addition of incremental capacity.

2.6.3. However, the SEM Committee is cognisant of the issue raised by one respondent concerning the potential opportunity for gaming, resulting from a possible uplift in derating factors and only delivering ≥90% (and <100%) of cleared capacity as explained in the following paragraph.

2.6.4. The technical underpinning of the gaming opportunity lies in the ability for a project to achieve Substantial Completion through achieving ≥90% completion as stipulated by the table in G.3.1.8 and receive its full capacity payment whilst not delivering its full complement of Awarded New Capacity. As one respondent noted, a scenario could arise where a unit may clear more incremental capacity in the auction than it qualified if de-rating factors were to increase from the previous auction. This, or other circumstances, could lead to a situation where the unit only delivers 90% of the Awarded New Capacity. Nonetheless, the SEM Committee understands that the participant would be paid for more capacity than it delivered, i.e. it would not have its capacity payment altered to reflect the lower level of delivery from that awarded in the auction. This differs from the treatment of units that have achieved Minimum Completion.

2.6.5. The SEM Committee considers that this is an existing issue within the CMC rather than one which is created by the design of this Modification Proposal. Having been made aware of this issue, the SEM Committee intends to seek to remedy it at a later date, given that it would be outside the scope of the current Modification Proposal.

2.6.6. The SEM Committee notes a response from one respondent which stated that it would be simpler to calculate PDC in non-rated terms as opposed to de-rated terms. The SEM Committee considers that following this approach would be more complex to administer and is not in line with the decision on CMC_06_19 included in SEM-19-046. CMC_06_19 introduced a change whereby the PDC should be calculated against the Awarded New Capacity, rather than Initial Capacity, as obligations under the CMC pertain to Awarded Capacity.

2.6.7. The SEM Committee also notes a response from another respondent who stated that the proposed change could be viewed as an inconsistent application of DRFs. The SEM Committee considers that this proposal does not introduce inconsistencies and that its central aim is to ensure that the measurement of delivered capacity is aligned with the measurement of capacity used by the SOs at the qualification stage.

2.6.8. Lastly, the SEM Committee considers that this Modification Proposal sends a positive signal to industry to compete in the Capacity Market on a level playing field in accordance with the CMC objectives, while ensuring consumers receive value for money.

2.6.9. Therefore, based on these reasons, the SEM Committee has decided to accept this Modification Proposal.

3. NEXT STEPS

3.1.1. The SEM Committee will make changes to the CMC based on CMC_03_25 only.

3.1.2. All SEM Committee decisions are published on the SEM Committee website: www.semcommittee.com.