MODIFICATION PROPOSAL FORM			
Proposer *(Company)*	**Date of receipt** *(assigned by System Operator)*	**Type of Proposal** *(delete as appropriate)*	**Modification Proposal ID** *(assigned by System Operator)*
System Operators	**6th March 2025**	**Standard**	**CMC_03_25**

Contact Details for Modification Proposal Originator		
Name	**Telephone number**	**Email address**
Aodhagan Downey		**capacitymarket@sem-o.com**

Modification Proposal Title		
Clarification of Proportion of Delivered Capacity for multiple tranches		
Documents affected *(delete as appropriate)*	**Section(s) Affected**	**Version number of CMC used in Drafting**
Capacity Market Code	**Chapter G**	**V12**

Explanation of Proposed Change
(mandatory by originator)

This change is being proposed to provide clarity in the treatment of multiple tranches of Awarded New Capacity in the calculation of Proportion of Delivered Capacity. The proposed change does not change the calculation of Proportion of Delivered Capacity except as contemplated in the very specific circumstances that arise as described in CMC_12_24.

The following changes have been introduced:

1. Deletion of text G.3.1.3 – this paragraph calculated Grid Code Commissioned Capacity at CMU level by summing across the Generator Unit level. This is now incorporated directly in G.3.1.4.
2. As De-Rated Grid Code Commissioned Capacity is used in G.3.1.4, its definition in G.3.1.4A is brought up to G.3.1.3.
3. Proportion of Delivered Capacity calculation is generalised for multiple Contract Register Entries as follows:

4. Representing G.3.1.4 PDC in algebraic form, we have:

$$PDC_{\Omega} = Max\left(0, \frac{Min(DRGCCC_{\Omega}, AC_{\Omega}) - AEC_{\Omega}}{AC_{\Omega} - AEC_{\Omega}}\right)$$

5. Expanding the term in the Min gives us:

$$PDC_{\Omega} = Max\left(0, Min\left(\frac{DRGCCC_{\Omega} - AEC_{\Omega}}{AC_{\Omega} - AEC_{\Omega}}, \frac{AC_{\Omega} - AEC_{\Omega}}{AC_{\Omega} - AEC_{\Omega}}\right)\right)$$

6. The right hand term = 1 or in percentage terms, 100%

$$PDC_{\Omega} = Max\left(0, Min\left(\frac{DRGCCC_{\Omega} - AEC_{\Omega}}{AC_{\Omega} - AEC_{\Omega}}, 100\%\right)\right)$$

7. $AC_{\Omega} - AEC_{\Omega} = ANC_{\Omega} = \sum_{n \epsilon ANC_{\Omega y}} qC_{\Omega n}$, where $qC_{\Omega n}$ is Contract Register Entry, n, of Awarded New Capacity (ANC) for Capacity Market Unit, Ω. $qC_{\Omega n}$ is the term used in the Trading and Settlement Code. The subscript, y, is introduced to clarify that we are referring to Contract Register Entries comprising Awarded New Capacity for a particular Capacity Year, y.

$$PDC_{\Omega y} = Max\left(0, Min\left(\frac{DRGCCC_{\Omega} - AEC_{\Omega y}}{\sum_{n \epsilon ANC_{\Omega y}} qC_{\Omega n}}, 100\%\right)\right)$$

8. Next we introduce the relationship originally defined in G.3.1.3 i.e. $DRGCCC_{\Omega} = \sum_{u \epsilon \Omega} DRGCCC_{u}$ so that DRGCCC is represented at Generator Unit / Interconnector level.

$$PDC_{\Omega y} = Max\left(0, Min\left(\frac{\sum_{u \epsilon \Omega} DRGCCC_{u} - AEC_{\Omega y}}{\sum_{n \epsilon ANC_{\Omega y}} qC_{\Omega n}}, 100\%\right)\right)$$

9. As ANC_{Ω} is not a single entry but multiple, we need to be able to calculate PDC for each Contract Register Entry, n. We do this as follows:

$$PDC_{\Omega ny} = Max\left(0, Min\left(\frac{\sum_{u \epsilon \Omega} DRGCCC_{u} - AEC_{\Omega}}{\sum_{i=1}^{n} qC_{\Omega i}}, 100\%\right)\right) \dots (i \epsilon ANC_{\Omega}, y)$$

10. The equation above is the same as the current version of the CMC except that it is now generalised for multiple Contract Register Entries. It is important to note that the order that the Contract Register Entries is the order in which they were cleared i.e. Capacity Auction date and then in order of increasing price.

11. Finally, adopting the proposed change set out in CMC_12_24, where AEC_{Ω} is replaced by De-Rated Initial Capacity Existing, the System Operators propose to replace AEC_{Ω} with Gross De-Rated Capacity (Existing), $GDRCE_{\Omega}$, which is aligns more with the qualification applications. We introduce the Generator Unit version of $GDRCE_{\Omega} = \sum_{u \epsilon \Omega} GDRCE_{u}$

$$PDC_{\Omega n} = Max\left(0, Min\left(\frac{\sum_{u \epsilon \Omega}(DRGCCC_{u} - GDRCE_{u})}{\sum_{i=1}^{n} qC_{\Omega i}}, 100\%\right)\right) \dots (i \epsilon ANC_{\Omega}, y)$$

12. Finally, G.3.1.4A and G.3.1.5 are deleted as the former has been moved to G.3.1.3 and G.3.1.5 is no longer required as the logic has been incorporated into the formula above.

Legal Drafting Change

*(Clearly show proposed code change using **tracked** changes, if proposer fails to identify changes, please indicate best estimate of potential changes)*

G.3.1.3 The De-Rated Grid Code Commissioned Capacity shall be the Grid Code Commissioned Capacity of the Generator Unit or Interconnector multiplied by :

(a) where a unit has a zero INCTOL value, the De-Rating Factor applicable to a unit of the Technology class and the Annual Run Hour Limit(s) of that

Generator Unit or Interconnector and with an Initial Capacity equal to the Grid Code Commissioned Capacity and an Initial Maximum On Time equal to the Grid Code Commissioned Maximum On Time of that Generator Unit or Interconnector as specified in the Initial Auction Information Pack for the relevant Capacity Auction in which the relevant Awarded New Capacity was allocated (Grid Code Commissioned De-rating Factor);

(b) otherwise, where a unit has a non-zero INCTOL value the Gross De-Rating Factor, as specified in item 3 (b) of Appendix E "Qualification Capacity Register Data".

~~The Grid Code Commissioned Capacity of a Capacity Market Unit is the sum of the Grid Code Commissioned Capacity of the Generator Units or the Interconnector comprising the Capacity Market Unit.~~

G.3.1.4 ~~The~~ The Proportion of Delivered Capacity ($PDC_{\Omega n}$) ~~-~~in respect of each Contract Register Entry, n, of Awarded New Capacity for Capacity Market Unit, Ω, at a given time ~~is~~ is a percentage value, defined as follows: ~~being:~~

~~(a) the greater of:~~

~~(i) zero; and~~

~~(ii) the lesser of:~~

~~(A) the De-rated Grid Code Commissioned Capacity; and~~

~~(B) the Awarded Capacity ;~~

~~less the Awarded Existing Capacity;~~

~~(b) divided by:~~

~~(i) the Awarded Capacity ; less~~

~~(ii) the Awarded Existing Capacity,~~

$$PDC_{\Omega n} = Max\left(0, Min\left(\frac{\sum_{u\epsilon\Omega}(DRGCCC_u - GDRCE_u)}{\sum_{i=1}^{n} qC_{\Omega i}}, 100\%\right)\right) \dots i \epsilon ANC_{\Omega y}$$

where:

(a) $DRGCCC_u$ is the De-Rated Grid Code Commissioned Capacity for Generator Unit or Interconnector, u, associated with Capacity Market Unit, Ω.

(b) $GDRCE_u$ is the Gross De-Rated Capacity Existing for Candidate Unit from the Capacity Auction where Contract Register Entry, n, was allocated.

(c) $qC_{\Omega n}$ is the Capacity Quantity for Capacity Market Unit, Ω, for Contract Register Entry, n, of Awarded New Capacity at time of Capacity Auction where Contract Register Entry, n, was allocated, where n is in order of earlier auction then lower price.

(d) $\sum_{u\Omega}$ is the summation across all Candidate Units, u, in Capacity Market Unit, Ω.

(e) $\sum_{i=1}^{n} qC_{\Omega i}$ is the summation across all Contract Register Entries, i, of Awarded New Capacity up to Contract Register Entry, n, for Capacity Market unit, Ω, in Capacity Year, y.

G.3.1.4A Intentionally blank. ~~For a Capacity Market Unit, the De-Rated Grid Code Commissioned Capacity shall be the Grid Code Commissioned Capacity of the Generator Unit or Interconnector multiplied by :~~

~~(a) where a unit has a zero INCTOL value, the De-Rating Factor applicable to a unit of the Technology class and the Annual Run Hour Limit(s) of that Generator Unit or~~

~~Interconnector and with an Initial Capacity equal to the Grid Code Commissioned Capacity and an Initial Maximum On Time equal to the Grid Code Commissioned Maximun On Time of that Generator Unit or Interconnector as specified in the Initial Auction Information Pack for the relevant Capacity Auction in which the relevant Awarded New Capacity was allocated (Grid Code Commissioned De-rating Factor)~~

~~(b) otherwise where a unit has a non-zero INCTOL value the Gross De-Rating Factor, as specified in item 3 (b) of Appendix E "Qualification Capacity Register Data";~~

G.3.1.5 Intentionally blank. ~~Where at a given time there is more than one Tranche of Awarded New Capacity in respect of a Capacity Market Unit (whether for the same Capacity Year or different Capacity Years), the System Operators shall calculate the Proportion of Delivered Capacity in respect of each Tranche by applying the methodology under paragraph G.3.1.4 but with such modifications to the values of Awarded Existing Capacity and Awarded Capacity as are necessary to account for the multiple Tranches. The required modifications shall include (as applicable):~~
~~(a) increasing Awarded Existing capacity of the relevant Tranche to account for the contribution of other Tranches commissioned since the relevant Tranche Qualified;~~
~~(b) decreasing Awarded Capacity of the relevant Tranche to account for other Tranches that Qualified but were not allocated the full amount in the relevant Capacity Auction or that have been terminated or reduced under section J.6 after the relevant Tranche Qualified; and~~
~~(c) reducing the Grid Code Commissioned Capacity in respect of any increased capacity of the Capacity Market Unit that was not Qualified as New Capacity and that was not otherwise accounted for in the Awarded Capacity .~~

Modification Proposal Justification
(Clearly state the reason for the Modification)

To provide clarity on the calculation of Proportion of Delivered Capacity for multiple Contract Register Entries. This proposal does not change the calculation of PDC except for applying a similar change to that set out in CMC_12_24.

If approved, this modification proposal would ensure that the verification of delivered capacity aligns with the qualification formulae.

The treatment of multiple Contract Register Entries is done in order of being cleared and this ensures that delivery of the Awarded New Capacity proceeds on the basis that it was originally cleared. The formulation also seeks to preserves the 90% Substantial Completion standard for all Contract Register Entries by assessing incremental Contract Register Entries with the Contract Register Entries below it. In this way, the Proportion of Delivered Capacity does not change depending on the number of Contract Register Entries that make up the Awarded New Capacity. This is an important feature where the are multiple Contract Register Entries.

Code Objectives Furthered
(State the Code Objectives the Proposal furthers, see Sub-Section A.1.2 of the CMC Code Objectives)

(a) to facilitate the efficient discharge by EirGrid and SONI of the obligations imposed by their respective Transmission System Operator Licences in relation to the Capacity Market;

This modification proposal is necessary to provide clarity on how the System Operators should calculate the Proportion of Delivered Capacity where there are multiple Contract Register Entries.

(e) to provide transparency in the operation of the SEM;

The current rule does not provide the necessary clarity to Participants on how their delivery with respect to multiple Contract Register Entries are measured. This introduces unnecessary risk in the participation of capacity provides in the SEM capacity market.

(f) to ensure no undue discrimination between persons who are or may seek to become parties to the Capacity Market Code;

Having clear and unambiguous rules around the calculation of Proportion of Delivered Capacity ensures that all Awarded New Capacities are measured in a consistent manner.

Implication of not implementing the Modification Proposal

(State the possible outcomes should the Modification Proposal not be implemented)

The CMC will not provide clear rules on the treatment of multiple contract register entries.

Impacts

(Indicate the impacts on systems, resources, processes and/or procedures)

Process impacts. The System Operators will seek to implement these calculations in the Capacity Market systems to reduce manual processing of Proportion of Delivered Capacity.

Please return this form to the System Operators by email to CapacityModifications@sem-o.com

Notes on completing Modification Proposal Form:

1. **If a person submits a Modification Proposal on behalf of another person, that person who proposes the material of the change should be identified on the Modification Proposal Form as the Modification Proposal Originator.**
2. **Any person raising a Modification Proposal shall ensure that their proposal is clear and substantiated with the appropriate detail including the way in which it furthers the Code Objectives to enable it to be fully considered by the Regulatory Authorities.**
3. **Each Modification Proposal will include a draft text of the proposed Modification to the Code unless, if raising a Provisional Modification Proposal whereby legal drafting text is not imperative.**
4. **For the purposes of this Modification Proposal Form, the following terms shall have the following meanings:**

CMC / Code:	**means the Capacity Market Code for the Single Electricity Market**
Modification Proposal:	**means the proposal to modify the Code as set out in the attached form**
Derivative Work:	**means any text or work which incorporates or contains all or part of the Modification Proposal or any adaptation, abridgement, expansion or other modification of the Modification Proposal**

The terms "System Operators" and "Regulatory Authorities" shall have the meanings assigned to those terms in the Code.

In consideration for the right to submit, and have the Modification Proposal assessed in accordance with the terms of Section B.12 of the Code, which I have read and understand, I agree as follows:

1. **I hereby grant a worldwide, perpetual, royalty-free, non-exclusive licence:**

   1.1 **to the System Operators and the Regulatory Authorities to publish and/or distribute the Modification Proposal for free and unrestricted access;**

   1.2 **to the Regulatory Authorities to amend, adapt, combine, abridge, expand or otherwise modify the Modification Proposal at their sole discretion for the purpose of developing the Modification Proposal in accordance with the Code;**

   1.3 **to the System Operators and the Regulatory Authorities to incorporate the Modification Proposal into the Code;**

   1.4 **to all Parties to the Code and the Regulatory Authorities to use, reproduce and distribute the Modification Proposal, whether as part of the Code or otherwise, for any purpose arising out of or in connection with the Code.**

2. **The licences set out in clause 1 shall equally apply to any Derivative Works.**

3. **I hereby waive in favour of the Parties to the Code and the Regulatory Authorities any and all moral rights I may have arising out of or in connection with the Modification Proposal or any Derivative Works.**

4. **I hereby warrant that, except where expressly indicated otherwise, I am the owner of the copyright and any other intellectual property and proprietary rights in the Modification Proposal and, where not the owner, I have the requisite permissions to grant the rights set out in this form.**

5. **I hereby acknowledge that the Modification Proposal may be rejected by the Regulatory Authorities and that there is no guarantee that my Modification Proposal will be incorporated into the Code.**