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)*
DRAI	**TBC**	**Standard**	

Contact Details for Modification Proposal Originator		
Name	**Telephone number**	**Email address**
Eoin Sweeney		

Modification Proposal Title		
Modification to the methodology for calculating the De-Rated Grid Code Commissioned Capacity		
Documents affected *(delete as appropriate)*	**Section(s) Affected**	**Version number of CMC used in Drafting**
Capacity Market Code	**G.3.1.4, G.3.1.4A, G.3.1.8**	**Version 5 (16 April 2021)**

Explanation of Proposed Change
(mandatory by originator)

Modification CMC_06_19, raised by the System Operators, recognised the many reasons why Awarded New Capacity may be less than the de-rated Initial Capacity (New). Its clear intent was to clarify that the calculation of the Proportion of Delivered Capacity should be measured against the Awarded New Capacity secured in the auction, and de-linked from measurement against the Initial Capacity (New) qualified for the auction. However, the algebra introduced to G.3.1.4 by CMC_06_19 does not align with the intent of modification CMC_06 _19. The current drafting of G.3.1.4A places a different value on Delivered Capacity depending on the quantity of the Initial Capacity that was qualified.

It should be noted that CMC_06_19 also sought to address inconsistencies within Chapter G of the CMC. However, a number of other inconsistences still remain after CMC_06_19, including:

- The final part of G.3.1.4 includes references to "Initial Capacity (Existing)" and "Initial Capacity (Total)" despite these terms having been removed from the part above by CMC_06_19.
- The Capacity and Trade Register calculations in G.3.1.8 still refer to Initial Capacity quantities

The DRAI recommends the Gross De-Rating Factor (from qualification) is completely removed, for all units, from the process of calculating the Proportion of Delivered Capacity to determine Substantial Completion.

The DRAI believes the significantly simplified drafting would deliver additional flexibility for all units when delivering New Capacity. The drafting essentially applies the De-Rating Factor that would otherwise apply to a unit based on its Technology Class, Maximum On Time and Grid Code Commissioned Capacity at the point of assessing Substantial Completion, instead of continuing to apply the Gross De-Rating Factor for a progressively small subset of units, without justification.

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

Amend G.3.1.4A to remove reference to Gross De-Rating Factor:

G.3.1.4A 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 paragraph G.3.1.2C or G.3.1.2D applies or where a change in Technology Class is granted in accordance with section J.5.4~~ the De-Rating Factor applicable to a unit of the Technology class 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 the Gross De-Rating Factor, as specified in item 3 (b) of Appendix E "Qualification Capacity Register Data";~~

Amend G.3.1.4 to remove legacy text:

G.3.1.4 The Proportion of Delivered Capacity in respect of Awarded New Capacity at a given time is a percentage value 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 ,

~~where "Initial Capacity (Existing)" and "Initial Capacity (Total)" shall have the values determined when the Awarded New Capacity Qualified.~~

Amend G.3.1.8 to remove legacy text:

G.3.1.8 The Capacity and Trade Register shall contain the following information:

Status of Capacity	Proportion of Delivered Capacity	Commissioned Capacity ($qCCOMMISS_{\Omega\gamma}$)	Capacity Quantity Commissioning Date	Commissioning Status Flag	Termination
Existing	N/A	Initial Capacity (Existing)	Date in past when commissioned	Actual	N/A
New Capacity, not Commissioned	0	Initial Capacity (Existing)	Substantial Completion date as per (modified) Implementation Plan	Forecast	N/A

New Capacity, operating prior to Long Stop Date but Substantial Completion not achieved.	≤ 90%	Initial Capacity (Existing)	Substantial Completion date as per (modified) Implementation Plan	Forecast	N/A
New Capacity, not expected to be operating for Capacity Year.	0	Initial Capacity (Existing)	Substantial Completion date as per (modified) Implementation Plan	Forecast	One year termination of Awarded Capacity for first Capacity Year only.
New Capacity, - Substantial Completion prior to Long Stop Date	≥ 90%	Initial Capacity (Existing) + Proportion of Delivered Capacity times [(~~Initial~~ Awarded Capacity (Total) - ~~Initial~~ Awarded Capacity (Existing)) divided by the **Grid Code Commissioned De-Rating Factor**]	Date of Substantial Completion	Actual	N/A

New Capacity, operating but has only achieved Minimum Completion by Long Stop date.	≥ 50% ≤ 90%	Initial Capacity (Existing) + Proportion of Delivered Capacity times [(~~Initial~~ Awarded Capacity (Total) -~~Initial~~ Awarded Capacity (Existing)) divided by the **Grid Code Commissioned De-Rating Factor**]	Long Stop Date	Actual	Awarded Capacity × (1 -Proportion of Delivered Capacity)
New Capacity, operating but has not achieved Minimum Completion by Long Stop Date.	0	Initial Capacity (Existing)	N/A	N/A	All Awarded Capacity

Modification Proposal Justification

(Clearly state the reason for the Modification)

Modification CMC_06_19 was clear in its intent to clarify that the calculation of the Proportion of Delivered Capacity should be measured against the Awarded New Capacity secured in the auction, and de-linked from measurement against the Initial Capacity (New) qualified for the auction. The System Operators correctly identified that there were inconsistencies within Chapter G and that they had taken an approach to the assessment up until then that best aligned with the capacity market design principles and de-rating concepts. It was clearly stated by the System Operators during the modification process that this modification was to align the CMC with the approach they had been taking.

However, the algebra introduced by CMC_06_19 does not align with the clearly stated intent of modification CMC_06 _19. The intent of G.3.1.4A(b) is to provide for use of the Gross De rating Factor where a Participant has applied a DECTOL factor, however, its application to units which have not done so is an unintended consequence of the modification.

The current drafting of G.3.1.4A places a different value on Delivered Capacity depending on the quantity of the Initial Capacity that was qualified. For example, two Gas Turbine CMUs could be Awarded exactly the same quantity of De-rated Capacity in an auction and commission and deliver identical generators. Using the algebra within G.3.1.4A, one of these could be deemed Substantially Complete, while the other could be deemed to not be Substantially Complete if it had qualified more Initial Capacity. This is clearly inconsistent with the market design and de-rating principles. The approach used by the System Operator up until the start of the 2020/2021 Capacity Year correctly accounted for such scenarios.

It should be noted that CMC_06_19 also sought to address inconsistencies within Chapter G of the CMC. However, a number of other inconsistences still remain after CMC_06_19, including:

- The final part of G.3.1.4 includes "where "Initial Capacity (Existing)" and "Initial Capacity (Total)" shall have the values determined when the Awarded New Capacity Qualified." This drafting, from the original version of the CMC, clarified how these two terms referenced in the preceding parts of G.3.1.4 should be interpreted. While the modifications made to G.3.1.4 by CMC_06_19 remove any referral to these two terms, this wording has not been removed, creating potential confusion.
- The provisions in G.3.1.8 (determining the information to be contained in the Capacity and Trade Register) have not been appropriately updated. For example, for Capacity which has met Substantial Completion prior to the Long Stop Date, the table stipulates the Commissioned Capacity should be equal to:
    - Initial Capacity (Existing)+Proportion of Delivered Capacity .(Initial Capacity (Total)-Initial Capacity (Existing))
    - This is contradictory to the intent of Mod_06_19 (and to the modifications made to G.3.1.4) which was to de-link the process for determining the delivery of Awarded New Capacity from assessment against the Initial Capacity (as per a unit's qualification).
    - Taking an example of a CMU which qualified with 0 MW Initial Capacity (Existing) and 100 MW Initial Capacity (Total) but only cleared the auction with 10 MW of this. If the unit subsequently delivered the 10 MW in full (achieving Proportion of Delivered Capacity 100%), the current algebra within G.3.1.8 would suggest that the Commissioned Capacity (qCCOMMISSΩγ) within the Capacity and Trade Register should be set equal to Initial Capacity (Existing) + Proportion of Delivered Capacity.(Initial Capacity (Total)-Initial Capacity (Existing)) = 0 + 100%.(100 MW – 0 MW) = 100 MW. This highlights the counterintuitive link which remains with values determined by the manner in which a unit was qualified.

Code Objectives Furthered

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

This Modification contributes to the following CMC Objectives (as set out in A.1.2.2):

B) "to facilitate the efficient, economic and coordinated operation, administration and development of the Capacity Market and the provision of adequate future capacity in a financially secure manner". The Modification removes legacy text which avoids confusion given the terms referenced in the final part of G.3.1.4 were previously removed as part of CMC_06_19.

F) "*to ensure no undue discrimination between persons who are or may seek to become parties to the Capacity Market Code*." The proposed modification removes the discrimination against units depending on how they qualified.

Implication of not implementing the Modification Proposal

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

Modification CMC_06_19 has not been effective at removing the assessment using qualified values when determining whether Awarded New Capacity has been delivered (which was its stated intent). Several links to qualified values remain (in particular within G.3.1.8), causing significant inconsistencies.

The amendments made by CMC_06_19 fundamentally do not deliver the intent of the Modification which was to de-link the process used to determine the Proportion of Delivered Capacity from the qualified Initial Capacity, and instead to link this to measurement against Awarded Capacity. The unintended consequence of applying the Gross DRF (based on the qualified Initial Capacity) within limb (b) of G.3.1.4A, is that this link to qualification values is unfortunately strengthened as opposed to removed.

While G.3.1.4A (b) is understood to have been intended to provide for exceptional cases where a unit has availed of a DECTOL factor, the unintended consequence of the "lesser of" drafting and the monatomically decreasing nature of DRFs means that any unit which qualified in a larger size category will always fall under limb (b) and will be impacted by a lower Gross DRF when assessed to determine

the delivery of their Awarded Capacity. Effectively, this applies different DRF values to units at the point of assessing delivery of Awarded New Capacity, depending on the way they qualified. By not addressing the unintended consequences imposed by CMC_06_19, some units will continue to get discriminated against depending on how they qualify.
Impacts *(Indicate the impacts on systems, resources, processes and/or procedures)*
No material impact to systems, resources and processes/procedures.
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.**