MARKET PROCEDURE: CAPACITY CREDIT ALLOCATION

PREPARED BY:	AEMO | Western Australia | WA Market Operations
VERSION:	5.0
EFFECTIVE DATE:	24 August 2020
STATUS:	FINAL

Approved for distribution and use by:

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VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
1.0	1 June 2008	Commencement
2.0	30 November 2015	Changes resulting from the transfer of functions from the IMO to AEMO
3.0	1 May 2019	Transitional provisions resulting from Procedure Change Proposal AEPC_2019_01 related to the rule change proposal RC_2017_06: Reduction of the prudential exposure in the Reserve Capacity Mechanism
4.0	1 June 2019	Changes resulting from Procedure Change Proposal AEPC_2019_03 related to the rule change proposal RC_2017_06: Reduction of the prudential exposure in the Reserve Capacity Mechanism and updates to reflect AEMO's new Market Procedure template
5.0	24 August 2020	Changes resulting from AEPC_2020_06 related to: • to improve the accuracy the accuracy of a Market Participant's Outstanding Amount; and • Amending Rules made by the Minister for Energy as part of the Wholesale Electricity Market Amendment (Reserve Capacity Pricing Reforms) Rules 2019 gazetted on 21 February 2020

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1. INTRODUCTION

1.1. Purpose and scope

1.1.1. This is the Market Procedure for Capacity Credit Allocation (Procedure) made under clause 9.4.18 of the Wholesale Electricity Market Rules (WEM Rules).

1.1.2. This Procedure has effect only for the purposes set out in the WEM Rules and the WEM Rules prevail over these Procedures to the extent of any inconsistency.

1.1.2. The purpose of this Procedure is to:

(a) provide an overview of the Capacity Credit Allocation process;

(b) outline when Capacity Credits are able to be traded bilaterally;

(c) outline the processes that:

(i) a Market Generator must follow when submitting or withdrawing a Capacity Credit Allocation Submission **[clauses 9.4.1 to 9.4.3 and 9.4.12]**;

(ii) AEMO must follow when deciding whether to approve or reject the Capacity Credit Allocation Submission **[clauses 9.4.4 to 9.4.6]**;

(iii) a Market Customer must follow when making a Capacity Credit Allocation Acceptance **[clauses 9.4.7 and 9.4.8]**;

(iv) AEMO must follow when determining whether to approve or reject the Capacity Credit Allocation Acceptance **[clauses 9.4.9 to 9.4.11]**;

(v) Market Generators, Market Customers and AEMO must follow to reverse a Capacity Credit Allocation **[clause 9.4.14]**; and

(vi) a Market Generator **[clause 9.4.16]** or AEMO **[clauses 9.4.15 and 9.4.17]** must follow to amend Capacity Credit Allocations after a termination of Capacity Credits; and

(d) outline the factors AEMO will take into account when considering whether:

(i) the Trading Margin of a Market Generator specified as the provider of Capacity Credits is likely to be negative after allocating Capacity Credits as outlined in a Capacity Credit Allocation Submission **[clauses 9.4.5(b) and 9.4.10(c)]**; or

(ii) the Trading Margin of a Market Customer specified as the receiver of Capacity Credits is likely to be negative after the reversal of a Capacity Credit Allocation **[clause 9.4.14(b)]**.

1.1.3. This Procedure applies to:

(a) AEMO;

(b) Market Generators with Capacity Credits that are able to be traded bilaterally; and

(c) Market Customers.

1.1.4. In this Procedure where obligations a conferred on a Rule Participant, that Rule Participant must comply with the relevant obligations in accordance with clauses 2.9.7, 2.9.7A, 2.9.7B, 2.9.7C and 2.9.8 of the WEM Rules, as applicable.

1.1.5. Reference to particular WEM Rules within the Procedure in bold and square brackets **[clause XX]** are included for convenience only and are not part of this Procedure.

1.2. Definitions and interpretation

1.2.1. Terms defined in the WEM Rules have the same meanings in this Procedure unless otherwise specified in this clause.

1.2.2. The following principles of interpretation apply to this Procedure unless otherwise expressly indicated:

(a) references to time are references to Australian Western Standard Time;

(b) terms that are capitalised, but not defined in this Procedure, have the meaning given in the WEM Rules;

(c) to the extent that this Procedure is inconsistent with the WEM Rules, the WEM Rules prevail to the extent of the inconsistency;

(d) a reference to the WEM Rules or Market Procedures includes any associated forms required or contemplated by the WEM Rules or Market Procedures;

(e) words expressed in the singular include the plural and vice versa; and

(f) conventions specified in sections 1.3 to 1.5 of the WEM Rules apply.

1.3. Related documents

1.3.1. The following Market Procedures (available on the Market Web Site[1]) provide background information to this Procedure:

(a) Market Procedure: Prudential Requirements;

(b) Market Procedure: Notices and Communications; and

(c) Market Procedure: Information Confidentiality.

2. SUMMARY OF CAPACITY CREDIT ALLOCATION PROCESSES

2.1. Process Overview

2.1.1. A Capacity Credit Allocation is the allocation of Capacity Credits from a Market Generator to a Market Customer for a Trading Month. A Capacity Credit Allocation effectively allocates the benefit of Capacity Credits from a Market Generator to a Market Customer for settlement purposes [chapter 11].

2.1.2. A Market Generator may submit one or more Capacity Credit Allocation Submissions for a Trading Month to AEMO [clause 9.4.1].

2.1.3. The Capacity Credit Allocation process outlined in clause 9.4 of the WEM Rules is generally summarised as follows and as outlined in Figure 1 below:

(a) A Market Generator may submit a Capacity Credit Allocation Submission to AEMO with respect to the allocation of Capacity Credits to a Market Customer.

(b) AEMO must approve the Capacity Credit Allocation Submission unless required to reject it (for one of two specified reasons).

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[1] Available at http://aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Procedures.

(c)   (Once AEMO approves the Capacity Credit Allocation Submission) The Market Customer may submit a Capacity Credit Allocation Acceptance to AEMO with respect to the allocation of Capacity Credits from the Market Generator.

(d)   AEMO must approve a Capacity Credit Allocation Acceptance unless required to reject it (for one of three specified reasons).

(e)   (Once AEMO approves the Capacity Credit Allocation Acceptance) The Capacity Credit Allocation will have an ACCEPTED status in Figure 1 and will be accounted for in settlement.

2.2.   Process Details

2.2.1.   All interactions between AEMO and Market Participants referred to in this Procedure will be conducted through the Wholesale Electricity Market System ("WEMS")[2].

2.2.2.   The earliest and the latest date and time that Market Participants may make submissions or requests in relation to Capacity Credit Allocations for a Trading Month are published by AEMO in the settlement cycle timeline [clause 9.16.2]. These timeframes apply for the purposes of:

(a)   Capacity Credit Allocation Submissions submitted by Market Generators;

(b)   Capacity Credit Allocation Acceptances submitted by Market Customers;

(c)   withdrawals of Capacity Credit Allocation Submissions by Market Generators; and

(d)   requests to reverse Capacity Credit Allocations made by Market Generators and Market Customers.

2.2.3.   When making submissions, as outlined in step 4 of this Market Procedure, Market Participants should consider the time taken for:

(a)   the relevant counterparty to make any required submissions in relation to the Capacity Credit Allocation; and

(b)   AEMO to make any decision in relation to the Capacity Credit Allocation.

2.2.4.   Notifications required under section 9.4 of the WEM Rules will be made in accordance with the Market Procedure: Notices and Communications.

2.2.5.   AEMO must process Capacity Credit Allocation Submissions, Capacity Credit Allocation Acceptances, requests to reverse a Capacity Credit Allocation and requests for the withdrawal of Capacity Credit Allocation Submissions in the order in which they are received by AEMO in WEMS.

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[2]   For a more detailed description of the steps in relation to Capacity Credit Allocation processes in WEMS, refer to the Market Participant Interface Software User Guide ("User Guide") available on the AEMO website (www.aemo.com.au).

Figure 1: Process Overview
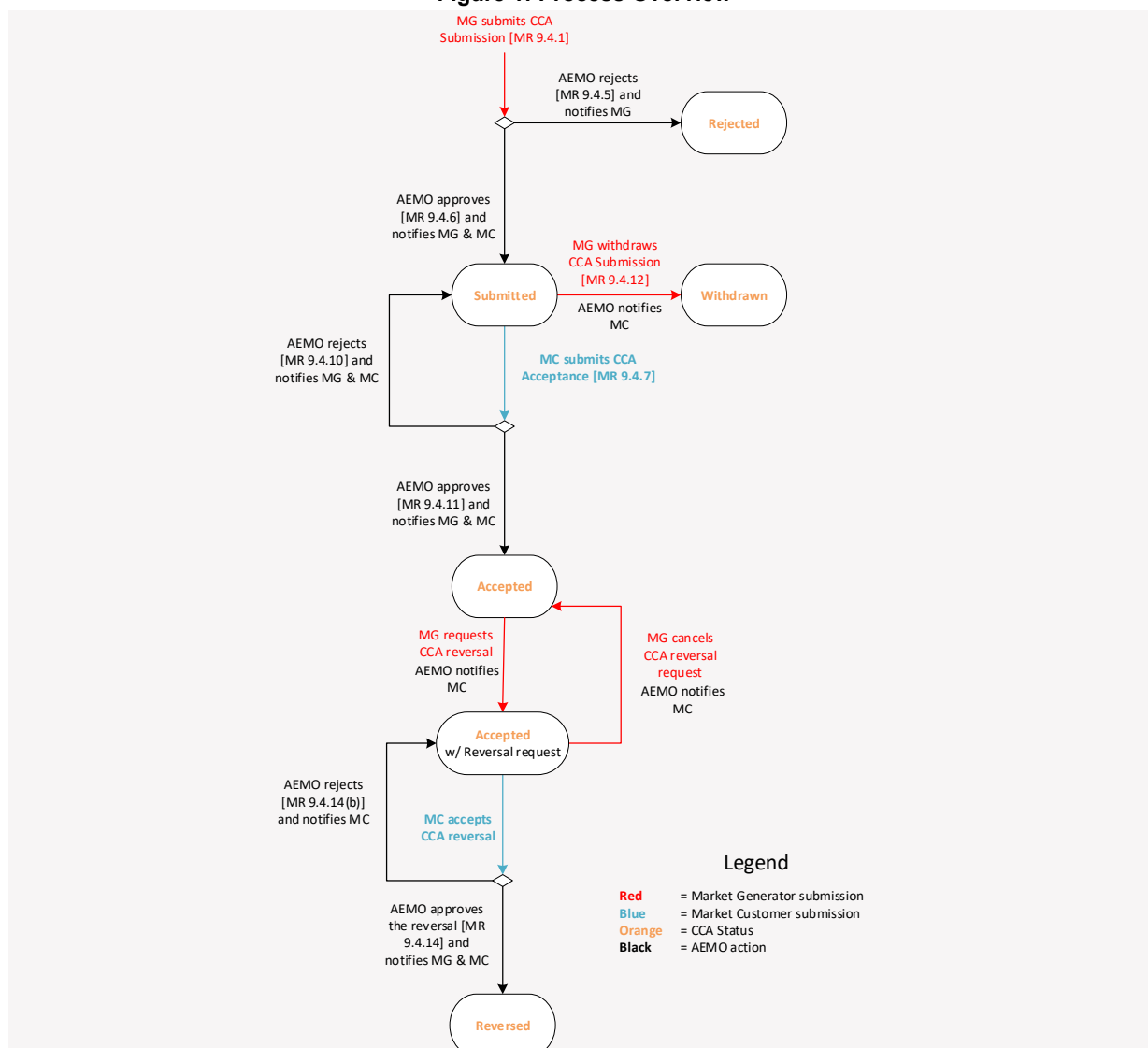
3. BILATERALLY TRADEABLE CAPACITY CREDITS

3.1.1. For the purposes of this Procedure, bilaterally tradeable Capacity Credits are the maximum number of Capacity Credits that a Market Generator can allocate to a Market Customer for a Trading Month.

3.1.2. DSM Capacity Credits are not bilaterally tradeable Capacity Credits [clause 9.4.2].

3.1.3. Capacity Credits covered by Special Price Arrangements are not bilaterally tradeable Capacity Credits.

3.1.4. Capacity Credits from Facilities subject to Network Control Service Contracts are bilaterally tradeable Capacity Credits [clause 4.29.3(d)(i)].

3.1.5. If a Capacity Credit is terminated, created or reinstated, AEMO must adjust the quantity of bilaterally tradeable Capacity Credits for a Market Generator to reflect the proportion of the Trading Month for which the Capacity Credit existed.

3.1.6. For example, if as at 1 April, a Market Generator holds 100 Capacity Credits attributed to a Scheduled Generator, and all 100 Capacity Credits are terminated effective 16 April, the Market Generator will have 50 bilaterally tradeable Capacity Credits for April.

4. CAPACITY CREDIT ALLOCATION SUBMISSIONS

4.1.1. A Capacity Credit Allocation Submission is made by a Market Generator and must comprise the following information:

(a) identity of the submitting Market Generator holding the Capacity Credits [clause 9.5.1(a)];

(b) identity of the Market Customer to which the Capacity Credits are to be allocated for settlement purposes [clause 9.5.1(b)]; and

(c) the number of Capacity Credits (including part of a Capacity Credit) to be allocated to a precision of 0.001 MW [clauses 9.5.1(c) and 9.5.2].

4.1.2. Within one Business Day after receiving a Capacity Credit Allocation Submission AEMO must:

(a) decide whether to approve or reject the Capacity Credit Allocation Submission [clause 9.4.4(a)]; and

(i) if the Capacity Credit Allocation Submission is rejected, notify the Market Generator and provide the reason for rejection [clause 9.4.4(b) and (c)]; or

(ii) if the Capacity Credit Allocation Submission is approved, notify the Market Generator and the Market Customer of the approval [clause 9.4.4(d)].

4.1.3. When deciding whether to approve or reject the Capacity Credit Allocation Submission AEMO must:

(a) reject the submission if:

(i) the Market Generator has insufficient bilaterally tradeable Capacity Credits available to allocate [clause 9.4.5(a)]; or

(ii) AEMO reasonably considers that the Trading Margin of the Market Generator is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission [clause 9.4.5(b)]; or

(b) otherwise, approve the submission [clause 9.4.6].

4.1.4. A Market Generator has insufficient bilaterally tradeable Capacity Credits available to allocate in a Trading Month (for the purposes of step 4.1.3(a)(ii) of this Procedure) if the following inequality holds:

$$CC < CCA + \sum CCA_{SUBMITTED} + \sum CCA_{ACCEPTED}$$

where:

Variable	Units	Definition
CC	Capacity Credits	Bilaterally tradeable Capacity Credits for the Trading Month
CCA	Capacity Credits	The quantity of Capacity Credits nominated to be allocated in the Capacity Credit Allocation Submission being assessed
$CCA_{SUBMITTED}$	Capacity Credits	The quantity of Capacity Credits associated with Capacity Credit Allocations for the Trading Month with a SUBMITTED status in Figure 1
$CCA_{ACCEPTED}$	Capacity Credits	The quantity of Capacity Credits associated with Capacity Credit Allocations for the Trading Month with an ACCEPTED status in Figure 1

4.1.5.   The Market Customer to which the Capacity Credits have been allocated in a Capacity Credit Allocation Submission may only submit a Capacity Credit Allocation Acceptance once the Capacity Credit Allocation Submission has been approved by AEMO. This process is discussed in more detail in section 5 of this Procedure **[clause 9.4.7]**.

4.1.6.   A Market Generator may withdraw a Capacity Credit Allocation Submission provided that:

(a)   it is prior to the deadline referred to in step 2.2.2 of this Procedure; and

(b)   AEMO has not approved the corresponding Market Customer's Capacity Credit Allocation Acceptance (i.e. the Capacity Credit Allocation does not have an ACCEPTED status in Figure 1) **[clause 9.4.12]**.

4.1.7.   If a Capacity Credit Allocation Submission is withdrawn, AEMO must notify the corresponding Market Customer within one Business Day **[clause 9.4.13]**.

5.   CAPACITY CREDIT ALLOCATION ACCEPTANCES

5.1.1.   To accept a specific Capacity Credit Allocation Submission made by a Market Generator, the Market Customer must submit a Capacity Credit Allocation Acceptance.

5.1.2.   A Capacity Credit Allocation Acceptance applies to all of the Capacity Credits nominated in the Capacity Credit Allocation Submission. A Market Customer cannot accept part of a Capacity Credit Allocation Submission.

5.1.3.   Within one Business Day after receiving a Capacity Credit Allocation Acceptance AEMO must:

(a)   decide whether to approve or reject the Capacity Credit Allocation Acceptance **[clause 9.4.9(a)]**;

(b)   notify the Market Generator and the Market Customer whether the Capacity Credit Allocation Acceptance is rejected or approved **[clause 9.4.9(b)]**;

(c)   provide the Market Customer of the reason for rejecting the Capacity Credit Allocation if it is rejected under clause 9.4.10(a) of the WEM Rules **[clause 9.4.9(c)]**; and

(d)   provide the Market Customer of the reason for rejecting the Capacity Credit Allocation Acceptance if it is rejected under clause 9.4.10(b) or (c) of the WEM Rules **[clause 9.4.9(d)]**.

5.1.4.   When deciding whether to approve or reject the Capacity Credit Allocation Acceptance AEMO must:

(a)   reject the Capacity Credit Allocation Acceptance if:

(i)   the corresponding Capacity Credit Allocation Submission was withdrawn under clause 9.4.12 of the WEM Rules **[clause 9.4.10(a)]**;

(ii)   the Market Generator has insufficient bilaterally tradeable Capacity Credits available to allocate **[clause 9.4.10(b)]**; or

(iii)   AEMO reasonably considers that the Trading Margin of the Market Generator is likely to be negative as a result of the Capacity Credit Allocation **[clause 9.4.10(c)]**; or

(b)   otherwise, approve the Capacity Credit Allocation Acceptance **[clause 9.4.11]**.

5.1.5.   The process to determine whether a Market Generator has insufficient bilaterally tradeable Capacity Credits available to allocate is the same as that outlined in section 4.1.4 of this Procedure.

5.1.6.   If the Capacity Credit Allocation Acceptance is rejected by AEMO, the Market Customer may submit another Capacity Credit Allocation Acceptance. It is recommended the Market Customer contact the corresponding Market Generator to resolve the cause of the rejection.

6. REVERSING CAPACITY CREDIT ALLOCATIONS

6.1.1. Once a Capacity Credit Allocation Acceptance has been approved by AEMO, the Capacity Credit Allocation has an ACCEPTED status as shown in Figure 1 and is considered for settlement purposes. This step 6 outlines the process under which an ACCEPTED Capacity Credit Allocation can be reversed to transfer the benefit of the Capacity Credits from the Market Customer back to the Market Generator.

6.1.2. A Capacity Credit Allocation reversal request is made in relation to a Capacity Credit Allocation that has an ACCEPTED status in Figure 1.

6.1.3. When it receives a Capacity Credit Allocation reversal request from a Market Generator, AEMO must notify the corresponding Market Customer.

6.1.4. The Market Customer may then attempt to accept the Capacity Credit Allocation reversal request.

6.1.5. Within one Business Day after a Market Customer has attempted to accept the Capacity Credit Allocation reversal request, AEMO must decide whether to reverse the Capacity Credit Allocation.

6.1.6. AEMO must reverse a Capacity Credit Allocation if:

(a) AEMO receives a request to reverse the Capacity Credit Allocation from the Market Generator and the Market Customer before the date and time published by AEMO [clause 9.4.14(a)]; and

(b) AEMO reasonably considers that the Market Customer's Trading Margin is not likely to be negative after the reversal [clause 9.4.14(b)].

6.1.7. If AEMO cannot reverse the Capacity Credit Allocation because the conditions in clause 9.4.14 of the WEM Rules are not met, then AEMO must notify the Market Customer.

6.1.8. If AEMO reverses the Capacity Credit Allocation, then AEMO must notify the Market Generator and the Market Customer.

7. AMENDMENTS TO CAPACITY CREDIT ALLOCATIONS

7.1.1. If the termination of a Market Generator's Capacity Credit results in the number of Capacity Credits allocated by that Market Generator exceeding the number of bilaterally tradeable Capacity Credits held by that Market Generator for any Trading Month, AEMO must notify the Market Generator within one Business Day [clause 9.4.15].

7.1.2. The excess identified under step 7.1.1 for a particular Market Generator in a particular Trading Month is calculated as:

$$Excess = \sum CCA_{ACCEPTED} - CC$$

where:

Variable	Units	Definition
CC	Capacity Credits	Bilaterally tradeable Capacity Credits for the Trading Month
$CCA_{ACCEPTED}$	Capacity Credits	The amount of Capacity Credits associated with the Market Generator's Capacity Credit Allocations for the Trading Month with an ACCEPTED status in Figure 1

7.1.3. The Market Generator's ACCEPTED Capacity Credit Allocations must be amended to reduce the excess identified to exactly zero.

7.1.4. Capacity Credit Allocations are amended by either:

(a)   the Market Generator, within two Business Days of being notified [clause 9.4.16]; or

(b)   AEMO, within one Business Day after the deadline for the Market Generator to make an amendment [clause 9.4.17].

7.1.5.   AEMO must notify any Market Customer that has its Capacity Credit Allocation amended by a Market Generator under clause 9.4.16 of the WEM Rules.

7.1.6.   When AEMO is required to amend a Market Generator's Capacity Credit Allocations for a Trading Month [clause 9.4.17] it uses the following methodology:

$$CCA_{i,amended} = \left(\frac{CCA_{i,current}}{\sum_i CCA_{i,current}} \right) \times CC$$

where

Variable	Units	Definition
$CCA_{i,amended}$	Capacity Credits	The Capacity Credit Allocation, i, after AEMO amends it
$CCA_{i,current}$	Capacity Credits	The Capacity Credit Allocation, i, prior to AEMO amending it
CC	MW	The number of Capacity Credits held for that Trading Month by the Market Generator that are allowed to be traded bilaterally under the WEM Rules

7.1.7.   AEMO must notify any Market Generator and the corresponding Market Customers after their Capacity Credit Allocation is amended by AEMO, within one Business Day from the deadline specified in clause 9.4.16 of the WEM Rules [clause 9.4.17(b)].

8.   ASSESSING TRADING MARGINS

8.1.1.   AEMO is required to reasonably consider whether a Market Participant's Trading Margin is likely to be negative when deciding to approve or reject the following submissions/requests:

(a)   Capacity Credit Allocation Submission [clause 9.4.5(b)];

(b)   Capacity Credit Allocation Acceptance [clause 9.4.10(c)]; and

(c)   reversing a Capacity Credit Allocation [clause 9.4.14(b)].

8.1.2.   A Market Participant may allocate Capacity Credits to itself provided it is registered as both a Market Generator and a Market Customer, which will result in no change to its Trading Margin.

8.1.3.   When considering whether the Trading Margin for Market Participant p is likely to be negative after a Capacity Credit Allocation for a particular Trading Month is approved or reversed, AEMO must update the Outstanding Amount calculation to include the latest approved Capacity Credit Allocation using the following calculation:

$$OA_{updated}(p) = OA_{last\_calc}(p) - \sum_{d \in D} \left(\sum_{cca \in CCA(p,d)} (\Delta CCA(p,cca) \times 1.1 \times RCP(cca)) \right)$$

where:

Variable	Units	Definition
$OA_{updated}(p)$	$ (inc GST)	The Outstanding Amount, determined as the net amount Market Participant p owes AEMO as updated in accordance with this step 8.1.3.
$OA_{last\_calc}(p)$	$ (inc GST)	The Outstanding Amount for Market Participant p as last calculated by AEMO in accordance with the Market Procedure: Prudential Requirements.

Variable	Units	Definition
$RCP(cca)$	\$ per Capacity Credit (ex GST)	The daily Reserve Capacity Price for the Trading Day associated with Capacity Credit Allocation cca, calculated as the Facility Monthly Reserve Capacity Price associated with cca divided by the number of days in the relevant Trading Month.
$\Delta CCA(p, cca)$	Capacity Credits	The Capacity Credit Allocation cca for Market Participant p at the time of the calculation in this step 8.1.3, less the Capacity Credit Allocation cca at the time of the latest Outstanding Amount calculation. It should be noted that a positive number represents either an increase in Capacity Credits received by Market Participant p related to Capacity Credit Allocation cca, or a decrease in Capacity Credit Allocations made by Market Participant p related to cca.
$CCA(p, d)$	{ }	The set of accepted Capacity Credit Allocations associated with by Market Participant p (either the Market Generator or Market Customer) applicable on Trading Day d.
D	{ }	The set of complete Trading Days in the past that formed the basis of the latest Outstanding Amount calculation.

8.1.4. When considering whether a Market Participant's (MP) Trading Margin is likely to be negative after a Capacity Credit Allocation for a particular Trading Month is approved or reversed, AEMO must calculate the change the action will have in relation to the Market Participant's Outstanding Amount, ΔOA using the following formulae:

(a) $\quad \Delta OA = -Days_{exposed} \times \Delta CCA \times 1.1 \times RCP(cca)$

(b) $\quad \Delta CCA = \left(CCA_{rec,new} - CCA_{rec,old}\right) - \left(CCA_{made,new} - CCA_{made,old}\right)$

where:

Variable	Units	Definition
$Days_{exposed}$	days	The number of complete Trading Days in the past from the Trading Month associated with the CCA.
$RCP(cca)$	\$ per Capacity Credit (ex GST)	The daily Reserve Capacity Price for the Trading Day associated with the Capacity Credit Allocation cca, calculated as the Facility Monthly Reserve Capacity Price associated with the CCA divided by the number of days in the relevant Trading Month.
$CCA_{made,new}$	Capacity Credits	If Market Participant = Market Generator then number of Capacity Credits associated with the CCA after the action, else 0.
$CCA_{made,old}$	Capacity Credits	If Market Participant = Market Generator, then number of Capacity Credits associated with the CCA before the action, else 0.
$CCA_{rec,new}$	Capacity Credits	If Market Participant = Market Customer, then number of Capacity Credits associated with the CCA after the action, else 0.
$CCA_{rec,old}$	Capacity Credits	If Market Participant = Market Customer, then number of Capacity Credits associated with the CCA before the action, else 0.