

WEM PROCEDURE: CAPACITY CREDIT ALLOCATION

PREPARED BY: AEMO | Western Australia | WA Market Operations
DOCUMENT REF: WEM PROCEDURE_ **xxxx**
VERSION: **6.0**
EFFECTIVE DATE: **1 October 2021**
STATUS: **DRAFT**

Approved for distribution and use by:

APPROVED BY: Draft – not approved for use and distribution
TITLE: Executive General Manager – Western Australia

DATE: / / 20**XX**

VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
1.0	1 June 2008	First version developed in accordance with clause XX of the WEM Rules
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: <ul style="list-style-type: none"> to improve 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
6.0	1 October 2021	Changes resulting from The Wholesale Electricity Market Amendment (Reserve Capacity Pricing Reforms) Rules 2019, related to: <ul style="list-style-type: none"> Capacity Credit Allocations (CCAs) can now be made by Market Participants and is not restricted to Market Generators Reserve Capacity Price is specific to a Facility CCAs are made from a respective Participant with respect to a Facility to a Participant the transfer of the Procedure to the new AEMO Procedure template, formatting amendments and minor administrative improvements to align with WEM Rules

INTERNAL VERSION RELEASE HISTORY [DELETE BEFORE PROVIDING EXTERNALLY]

Version	Effective Date	Summary of Changes
0.1	dd [Month] 20yy	First version

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1. INTRODUCTION

1.1. Purpose and scope

- 1.1.1.** This WEM Procedure: Capacity Credit Allocation (Procedure) is made in accordance with AEMO's functions under clause 9.4.18 of the Wholesale Electricity Market Rules (WEM Rules).
- 1.1.2.** The *Electricity Industry Act 2004*, the WEM Regulations and the WEM Rules prevail over this Procedure to the extent of any inconsistency.
- 1.1.3.** In this Procedure, where obligations are conferred on a Rule Participant, that Rule Participant must comply with the relevant obligations in accordance with clause 2.9.7A, 2.9.7D or 2.9.8 of the WEM Rules, as applicable.
- 1.1.4.** The purpose of this Procedure is to:
- (a) provide an overview of the Capacity Credit Allocation process;
 - (b) outline when Capacity Credits can be traded bilaterally;
 - (c) outline the processes that:
 - (i) a Market Participant must follow when submitting or withdrawing a Capacity Credit Allocation Submission in respect of a Facility [clauses 9.4.1, 9.4.3 and 9.4.12];
 - (ii) AEMO must follow when deciding whether to approve or reject a Capacity Credit Allocation Submission in respect of a Facility [clauses 9.4.4 to 9.4.6];
 - (iii) AEMO must follow when a Market Participant withdraws a Capacity Credit Allocation Submission in respect of a Facility before AEMO approves a corresponding Capacity Credit Allocation Acceptance [clause 9.4.13];
 - (iv) a Market Customer must follow when making a Capacity Credit Allocation Acceptance [clauses 9.4.7 and 9.4.8];
 - (v) AEMO must follow when determining whether to approve or reject a Capacity Credit Allocation Acceptance [clauses 9.4.9 to 9.4.11];
 - (vi) Market Participants that submit Capacity Credit Allocation Submissions, Market Customers that receive Capacity Credits from Capacity Credit Allocation Submissions and AEMO must follow to reverse a Capacity Credit Allocation in respect of a Facility [clause 9.4.14]; and
 - (vii) a Market Participant [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 in respect of a Facility; and
 - (d) outline the factors AEMO will take into account when considering whether:
 - (i) the Trading Margin of a Market Participant specified as the provider of Capacity Credits is likely to be negative after allocating the 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 in a Capacity Credit Allocation Submission is likely to be negative after the reversal [clause 9.4.14(b)].

1.1.5. This Procedure applies to:

- (e) AEMO;
- (f) Market Participants with Capacity Credits that can be traded bilaterally; and
- (g) Market Customers.

1.1.6. In this Procedure where obligations are conferred on a Rule Participant, that Rule Participant must comply with the relevant obligations in accordance with clause 2.9.7A or 2.9.8 of the WEM Rules, as applicable.

1.1.7. Appendix A of this Procedure outlines the head of power clauses that this Procedure is made under, as well as other obligations in the WEM Rules covered by this Procedure.

1.2. Definitions

1.2.1. Terms defined in the *Electricity Industry Act 2004*, the WEM Regulations and the WEM Rules have the same meanings in this Procedure unless the context requires otherwise.

1.3. Interpretation

1.3.1. The following principles of interpretation apply in this Procedure unless the context requires otherwise.

- (a) Clauses 1.3 to 1.5 of the WEM Rules apply in this Procedure.
- (b) References to time are references to Australian Western Standard Time.
- (c) Terms that are capitalised, but not defined in this Procedure, have the meaning given in the WEM Rules.
- (d) A reference to the WEM Rules or WEM Procedures includes any associated forms required or contemplated by the WEM Rules or WEM Procedures.
- (e) Words expressed in the singular include the plural and vice versa.
- (f) A reference to a paragraph refers to a paragraph of this Procedure.
- (g) A reference to a clause refers to a clause or section of the WEM Rules.
- (h) References to WEM Rules in **this Procedure** in bold and square brackets [Clause XXX] are included for convenience only, and do not form part of this Procedure.
- (i) Text located in boxes and headed as Explanatory Note X in this Procedure is included by way of explanation only and does not form part of this Procedure. The Procedure prevails to the extent of any inconsistency with the explanatory notes contained within it.
- (j) The body of this Procedure prevails to the extent of any inconsistency with the figures, diagrams, appendices, schedules, annexures or attachments contained within this document.

1.4. Related documents

1.4.1. The documents in Table 1 are associated with this Procedure.

Table 1 Related documents

Reference	Title	Location
	Market Procedure: Information Confidentiality	WEM link
	Market Procedure: Notices and Communications	WEM link
	Market Procedure: Prudential Requirements	WEM link

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 Participant to a Market Customer for a Trading Month for settlement purposes through the allocation process in clauses 9.4 and 9.5 [Chapter 11].

2.1.2. [BLANK]

2.1.3. The Capacity Credit Allocation process outlined in clause 9.4 is generally summarised as follows and as outlined in Error! Reference source not found. below:

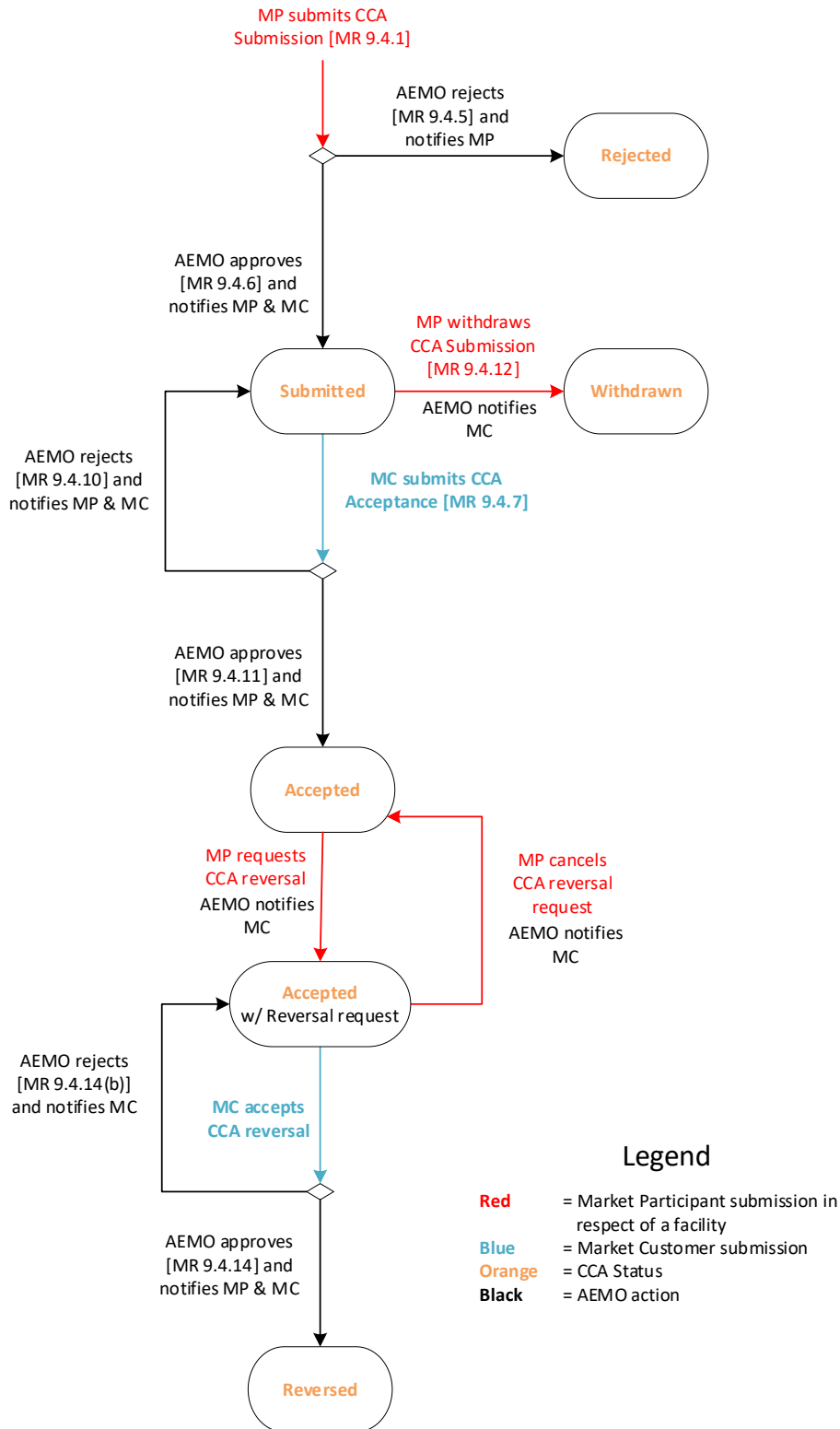
- (a) A Market Participant may submit one or more Capacity Credit Allocation Submissions in respect of a Facility for a full Trading Month to AEMO with the allocation of Capacity Credits to a Market Customer. A Capacity Credit Allocation Submission allocates Capacity Credits to a single Market Customer
- (b) AEMO must approve the Capacity Credit Allocation Submission unless required to reject it (for one of two specified reasons).
- (c) (Once AEMO approves the Capacity Credit Allocation Submission) The Market Customer specified as the receiver of Capacity Credits may submit a Capacity Credit Allocation Acceptance to AEMO.
- (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 has an ACCEPTED status in Error! Reference source not found. and is accounted for in settlement.
- (f) There are additional processes under which:
 - (i) a Market Participant may withdraw a Capacity Credit Allocation Submission in respect of a Facility before AEMO approves a corresponding Capacity Credit Allocation Acceptance; and
 - (ii) a Capacity Credit Allocation in respect of a Facility may be reversed.

2.2. Process Details

- 2.2.1.** All interactions between AEMO and Market Participants referred to in this Procedure are conducted through the Wholesale Electricity Market System (“WEMS”)¹.
- 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 in respect of a Facility submitted by Market Participants;
 - (b) Capacity Credit Allocation Acceptances submitted by Market Customers;
 - (c) withdrawals of Capacity Credit Allocation Submissions by Market Participants; and
 - (d) requests to reverse Capacity Credit Allocations made by Market Participants.
- 2.2.3.** When making submissions, as outlined in paragraph 4 of this Procedure, Market Participants need to 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 clause 9.4 must be made in accordance with the WEM Procedure: Notices and Communications.
- 2.2.5.** AEMO must process Capacity Credit Allocation Submissions, Capacity Credit Allocation Acceptances, requests for the withdrawal of Capacity Credit Allocation Submissions, and requests to reverse a Capacity Credit Allocation in the order in which they are received by AEMO in WEMS.

¹ 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 available on the WEM 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 Participant can allocate with respect to a Facility to a Market Customer for a Trading Month.
- 3.1.2.** [BLANK]
- 3.1.3.** Capacity Credits covered by Special Price Arrangements are not bilaterally tradeable Capacity Credits [clause 4.29.3(d)(i)(2)].
- 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 during a Trading Month, AEMO must adjust the quantity of bilaterally tradeable Capacity Credits for a Market Participant with respect to a Facility to reflect the proportion of the Trading Month for which the Capacity Credit existed [clause 4.29.4].

4. CAPACITY CREDIT ALLOCATIONS SUBMISSIONS

- 4.1.1.** A Capacity Credit Allocation Submission must set out the information specified in clause 9.5.1.
- 4.1.2.** Clauses 9.4.4, 9.4.5 and 9.4.6 apply to AEMO with respect to Capacity Credit Allocation Submissions.
- 4.1.3.** [BLANK]
- 4.1.4.** For the purposes of clause 9.4.5(a), a Market Participant has insufficient bilaterally tradeable Capacity Credits available to allocate in respect of a Facility in a Trading Month if the following inequality holds:

$$CC(f, m) < CCA(a) + \sum CCA_{SUBMITTED}(f, m) + \sum CCA_{ACCEPTED}(f, m)$$

where:

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

- 4.1.5.** A Market Customer specified as the receiver of Capacity Credits in a Capacity Credit Allocation Submission may only submit a Capacity Credit Allocation Acceptance after AEMO approves the Capacity Credit Allocation Submission. This process is discussed in more detail in section Error! Reference source not found. of this Procedure [clause 9.4.7].
- 4.1.6. A Market Participant may withdraw a Capacity Credit Allocation Submission in respect of a Facility before the latest date and** time determined under paragraph 2.2.2 if (and only if) AEMO has not approved a corresponding Market Customer's Capacity Credit Allocation Acceptance (i.e. the Capacity Credit Allocation does not have an ACCEPTED status in Error! Reference source not found.) [clause 9.4.12]
- 4.1.7.** Clauses 9.4.15 applies to AEMO If a Capacity Credit Allocation Submission is withdrawn.

5. CAPACITY CREDIT ALLOCATION ACCEPTANCES

- 5.1.1.** To accept a specific Capacity Credit Allocation Submission made by a Market Participant, 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.** Clauses 9.4.9, 9.4.10 and 9.4.11 apply to AEMO with respect to Capacity Credit Allocation Acceptances.
- 5.1.4.** [BLANK]
- 5.1.5.** For the purposes of clause 9.4.10(b), a Market Participant has insufficient bilaterally tradeable Capacity Credits available to allocate in respect of a Facility in a Trading Month if the inequality specified in paragraph 4.1.4 holds:
- 5.1.6.** If AEMO rejects a Capacity Credit Allocation Acceptance in respect of a Facility, the Market Customer may submit another Capacity Credit Allocation Acceptance. It is recommended that the Market Customer contacts the Market Participant who submitted the relevant Capacity Credit Allocation Submission to resolve the cause of the rejection.

6. REVERSING CAPACITY CREDIT ALLOCATIONS

- 6.1.1.** If AEMO approves a Capacity Credit Allocation Acceptance, the Capacity Credit Allocation has an ACCEPTED status as shown in Error! Reference source not found., and is accounted for in settlement. This step Error! Reference source not found. 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 Participant who submitted the relevant Capacity Credit Allocation Submission.
- 6.1.2.** A Capacity Credit Allocation reversal request is made in relation to a Capacity Credit Allocation that has an ACCEPTED status in Error! Reference source not found..
- 6.1.3.** A Market Participant may submit a Capacity Credit Allocation reversal request in respect of an ACCEPTED Capacity Credit Allocation before the latest date and time determined under paragraph 2.2.2.

- 6.1.4.** If AEMO receives a Capacity Credit Allocation reversal request, it must notify the relevant Market Customer to whom the Capacity Credits are allocated.
- 6.1.5.** The Market Customer may accept the Capacity Credit Allocation reversal request after being notified by AEMO under paragraph 6.1.4.
- 6.1.6.** If the Market Customer does not accept the Capacity Credit Allocation reversal request within one Business Day after being notified by AEMO under paragraph Error! Reference source not found., AEMO must decide whether to reverse the Capacity Credit Allocation. Clause 9.4.14 applies to AEMO with respect to a Capacity Credit Allocation reversal decision.
- 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 Participant that made the Capacity Credit Allocation and the Market Customer specified as the receiver of the Capacity Credits.

7. AMENDMENTS TO CAPACITY CREDIT ALLOCATIONS

- 7.1.1.** Clauses 9.4.15, 9.4.16 and 9.4.17 apply if the termination of a Capacity Credit in respect of a Facility results in the number of Capacity Credits allocated by a Market Participant in Capacity Credit Allocations for that Facility for a Trading Month exceeding the number of Capacity Credits held for that Facility for a Trading Month by the Market Participant that are allowed to be traded bilaterally under the WEM Rules.
- 7.1.2.** The excess identified under paragraph 7.1.1 for a particular Market Participant and Facility in a particular Trading Month is calculated as:

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

where:

Variable	Units	Definition
CC	Capacity Credits	The number of bilaterally tradeable Capacity Credits for the Facility for the Trading Month
CCA_{ACCEPTED}	Capacity Credits	The quantity of Capacity Credits associated with the Market Participant's Capacity Credit Allocations for the Facility for the Trading Month with an ACCEPTED status in Error! Reference source not found.

- 7.1.3.** The Market Participant's ACCEPTED Capacity Credit Allocations with respect to a Facility must be amended to reduce the total number of Capacity Credits allocated by the quantity needed to eliminate the excess identified by AEMO under clause 9.4.15.
- 7.1.4.** Clauses 9.4.16 and 9.4.17 apply with respect to Capacity Credit Allocation amendments.
- 7.1.5.** [BLANK]
- 7.1.6.** AEMO must use the following methodology if it is required to amend a Market Participant's Capacity Credit Allocations for a Trading Month [clause 9.4.17]:

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

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 Participant for that facility that are allowed to be traded bilaterally under the WEM Rules

7.1.7. [BLANK]

8. ASSESSING TRADING MARGINS

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

- Capacity Credit Allocation Submission [clause 9.4.5(b)];
- Capacity Credit Allocation Acceptance [clause 9.4.10(c)]; and
- Capacity Credit Allocation reversal request [clause 9.4.14(b)].

8.1.2. A Market Participant may allocate Capacity Credits to itself. This results 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 allocating the Capacity Credits as outlined in the Capacity Credit Allocation, or after the reversal, 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 paragraph 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.
$RCP(cca)$	\$ 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 paragraph 8.1.3, less the Capacity Credit Allocation cca at the time of the latest Outstanding Amount calculation. 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 .

Variable	Units	Definition
$CCA(p, d)$	{ }	The set of accepted Capacity Credit Allocations associated with 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 the Trading Margin for Market Participant p is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation, or after the reversal, AEMO must calculate the change the action will have in relation to Market Participant p 's Outstanding Amount, ΔOA using the following formulae:

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

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

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 p is the Market Participant who submitted the corresponding Capacity Credit Allocation Submission, then the number of Capacity Credits associated with the CCA after the action, otherwise 0.
$CCA_{made,old}$	Capacity Credits	If Market Participant p is the Market Participant who submitted the corresponding Capacity Credit Allocation Submission, then the number of Capacity Credits associated with the CCA before the action, otherwise 0.
$CCA_{rec,new}$	Capacity Credits	If Market Participant p is the Market Participant who submitted the corresponding Capacity Credit Allocation Acceptance, then the number of Capacity Credits associated with the CCA after the action, otherwise 0.
$CCA_{rec,old}$	Capacity Credits	If Market Participant p is the Market Participant who submitted the corresponding Capacity Credit Allocation Acceptance, then the number of Capacity Credits associated with the CCA before the action, otherwise 0.

APPENDIX A. RELEVANT CLAUSES OF THE WEM RULES

Table 22 details:

- (a) the head of power clauses in the WEM Rules under which the Procedure has been developed; and
- (b) each clause in the WEM Rules requiring an obligation, process or requirement be documented in a WEM Procedure, where the obligation, process or requirement has been documented in this Procedure.

Table 2 Relevant clauses of the WEM Rules

Clause	Paragraph reference within this Procedure
9.4.18	1.1.1