

# WEM PROCEDURE: CAPACITY CREDIT ALLOCATIONS

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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: <ul style="list-style-type: none"> <li>to improve the accuracy the accuracy of a Market Participant's Outstanding Amount; and</li> <li>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.</li> </ul>
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"> <li>Capacity Credit Allocations (CCAs) can now be made by Market Participants and is not restricted to Market Generators.</li> <li>Reserve Capacity Price is specific to a Facility.</li> <li>CCAs are made from a respective Participant with respect to a Facility to a Participant.</li> </ul> <p>The transfer of the Procedure to the new AEMO Procedure template, formatting amendments and minor administrative improvements to align with WEM Rules.</p>
6.1		Procedure issued for consultation. Changes resulting from WEM Reform related to: <ul style="list-style-type: none"> <li>Capacity Credit Allocations being on a Trading Day basis.</li> <li>Removal of Capacity Credit Allocation Acceptances.</li> <li>Removal of Capacity Credit Allocation reversals.</li> <li>Removal of Trading Margin validations.</li> </ul> <p>Introduction of Capacity Credit Allocation Standing Submission List to provide a method by which Capacity Credit Allocation Submissions are automatically generated.</p>

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## 1. INTRODUCTION

### 1.1. Purpose and scope

- 1.1.1. This WEM Procedure: Capacity Credit Allocations (Procedure) is made in accordance with AEMO's functions under clause 2.1A.2(h) 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) define a process whereby Market Participants may provide AEMO with a Capacity Credit Allocation Standing Submission List that will be used to create Capacity Credit Allocation Submissions;
  - (c) outline the processes that:
    - (i) a Market Participant must follow when submitting a Capacity Credit Allocation Submission [clauses 4.30.1 and 4.30.2];
    - (ii) AEMO must follow when deciding whether to approve or reject a Capacity Credit Allocation Submission [clauses 4.30.3, 4.30.4 and 4.30.5];
    - (iii) a Market Participant must follow when withdrawing a Capacity Credit Allocation Submission [clause 4.30.6];
    - (iv) AEMO must follow when a Market Participant withdraws a Capacity Credit Allocation Submission [clause 4.30.8]; and
    - (v) AEMO must follow to amend Capacity Credit Allocations [clause 4.30.11]; and
  - (d) outline the format of Capacity Credit Allocation submissions [clause 4.31].

1.1.5. 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.

1.2.2. The following definitions apply in this Procedure unless the context requires otherwise.

**Table 1 Definitions**

Term	Meaning
Capacity Credit Allocation Window	The Capacity Credit Allocation Window for a Trading Day is the period of time between the earliest date and time that Market Participants may submit or withdraw a Capacity Credit Allocation Submission as published by AEMO in the settlement cycle timeline [clause 4.32] and 5:00PM on the Scheduling Day related to the relevant Capacity Credit Allocation Submission Trading Day [clauses 4.30.1 and 4.30.6].
Capacity Credit Allocation Standing Submission List	A Capacity Credit Allocation Standing Submission List for a Market Participant is an ordered list of Template Capacity Credit Allocation Submissions that are used to automatically generate Capacity Credit Allocation Submissions for a Capacity Year.
Template Capacity Credit Allocation Submission	A Template Capacity Credit Allocation Submission for a Market Participant for a Capacity Year which is used to automatically generate a Capacity Credit Allocation Submission for a Market Participant for a Trading Day within the Capacity Year.
Wholesale Electricity Market System	An interface software that AEMO uses to administer and operate the Wholesale Electricity Market.

## 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.
- 1.3.2. Each Rule Participant must perform all obligations imposed on that Rule Participant under the previous version of this Procedure in relation to any Trading Days prior to the New WEM Commencement Day.
- 1.3.3. Each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the previous version of this Procedure in relation to any Trading Days prior to the New WEM Commencement Day.

## 1.4. Related documents

- 1.4.1. The documents in Table 2 are associated with this Procedure.

**Table 2 Related documents**

Reference	Title	Location
WEM Rules	WEM Rules	<a href="#">Energy Policy WA Website</a>

## 2. SUMMARY OF CAPACITY CREDIT ALLOCATION PROCESSES

### 2.1. Process Details

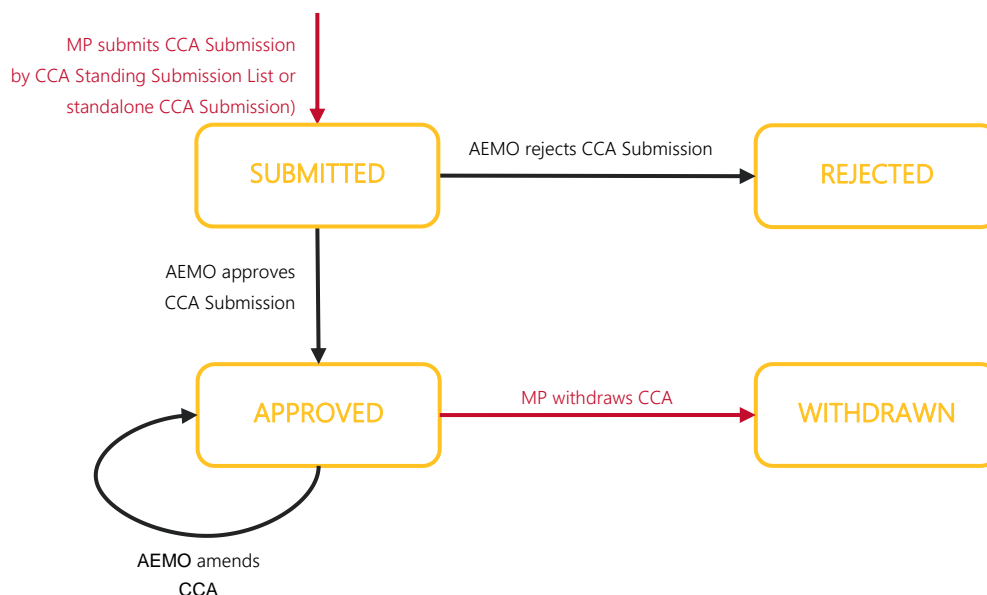
- 2.1.1. All submissions, approvals, rejections, withdrawals and amendments related to Capacity Credit Allocations made by either AEMO or Market Participants in this Procedure must be conducted through the Wholesale Electricity Market System (WEMS).
- 2.1.2. AEMO must process Capacity Credit Allocation Submissions and requests for the withdrawal of a Capacity Credit Allocation Submission, in the order in which they are received.
- 2.1.3. AEMO must publish the Capacity Credit Allocation Windows for a Financial Year at least one calendar month prior to the commencement of that Financial Year on the WEM Website [Clause 4.32.1].

### 2.2. Process Overview

- 2.2.1. The Capacity Credit Allocation process outlined in clause 4.30 and this Procedure is summarised as follows and as outlined in Figure 1:
- A Market Participant may provide AEMO with a Capacity Credit Allocation Standing Submission List for a Capacity Year that will be used to automatically generate Capacity Credit Allocation Submissions at the opening of each relevant Capacity Credit Allocation Window.
  - A Market Participant may submit Capacity Credit Allocation Submissions to AEMO as standalone submissions within the relevant Capacity Credit Allocation Window [Clause 4.30.1].
  - AEMO must approve a Capacity Credit Allocation Submission unless it is required to reject it [Clause 4.30.5].

- (d) A Market Participant may withdraw a Capacity Credit Allocation Submission within the relevant Capacity Credit Allocation Window [Clause 4.30.6].
- (e) AEMO must amend Capacity Credit Allocations for a Facility if they exceed the number of bilaterally tradeable Capacity Credits for the Facility [Clause 4.30.11].

Figure 1 **Capacity Credit Allocation Process Overview**



### 3. CAPACITY CREDIT ALLOCATION STANDING SUBMISSION LIST

- 3.1.1. A Market Participant may provide AEMO with a Capacity Credit Allocation Standing Submission List that will be used to automatically generate Capacity Credit Allocation Submissions in accordance with paragraph 3.1.4.
- 3.1.2. A Capacity Credit Allocation Standing Submission List must contain an ordered list of Template Capacity Credit Allocation Submissions.
- 3.1.3. Each Template Capacity Credit Allocation Submission must set out the information required of a Capacity Credit Allocation Submission as specified in clause 4.31.1 and adhere to clause 4.31.2.
- 3.1.4. Within 1 Business Day after the Capacity Credit Allocation Window opens for a Trading Day, AEMO must use the most currently held Capacity Credit Allocation Standing Submission List (for each Market Participant for the relevant Capacity Year) to convert each Template Capacity Credit Allocation Submission into a Capacity Credit Allocation Submission.
- 3.1.5. AEMO must convert Template Capacity Credit Allocation Submissions into Capacity Credit Allocation Submissions in the order specified within the relevant Capacity Credit Allocation Standing Submission List.

### 4. CAPACITY CREDIT ALLOCATION SUBMISSIONS

- 4.1.1. A Market Participant may submit Capacity Credit Allocation Submissions to AEMO on a stand alone basis within the relevant Capacity Credit Allocation Window.
- 4.1.2. A Capacity Credit Allocation Submission must set out the information specified in clause 4.31.1 and adhere to clause 4.31.2.

## 5. APPROVING AND REJECTING CAPACITY CREDIT ALLOCATION SUBMISSIONS

- 5.1.1. AEMO must comply with clauses 4.30.3, 4.30.4 and 4.30.5 with respect to rejecting and approving Capacity Credit Allocation Submissions.
- 5.1.2. For the purposes of clause 4.30.4, a Market Participant,  $p$ , has insufficient bilaterally tradeable Capacity Credits available to allocate in Capacity Credit Allocation,  $a$ , (related to Facility,  $f$ , and Trading Day,  $d$ ) if the following inequality holds:

$$CC(p, f, d) < CCA(a) + \sum_{b \in ALLOCATIONS(p, f, d)} CCA(b)$$

where:

Variable	Units	Definition
$CC(p, f, d)$	Capacity Credits	Bilaterally tradeable Capacity Credits for Market Participant $p$ in relation to Facility $f$ and Trading Day $d$ .
$CCA(a)$	Capacity Credits	The quantity of Capacity Credits proposed to be allocated in Capacity Credit Allocation $a$ .
$ALLOCATIONS(p, f, d)$	Set	The set of approved Capacity Credit Allocation Submissions made by Market Participant $p$ in relation to Facility $f$ and Trading Day $d$ which have not been withdrawn.

## 6. WITHDRAWING CAPACITY CREDIT ALLOCATION SUBMISSIONS

- 6.1.1. A Market Participant may withdraw a Capacity Credit Allocation Submission within the relevant Capacity Credit Allocation Window [Clause 4.30.6]
- 6.1.2. Within one Trading Day after a Market Participant has withdrawn a Capacity Credit Allocation Submission in respect of a Facility under paragraph 6.1.1, AEMO must notify the Market Participant specified as the receiver of the Capacity Credits that the Capacity Credit Allocation Submission for that Facility has been withdrawn [Clause 4.30.8].

## 7. AMENDMENTS TO CAPACITY CREDIT ALLOCATIONS

- 7.1.1. 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 Day exceeding the number of Capacity Credits held for that Facility for that Trading Day by the Market Participant that are allowed to be traded bilaterally under the WEM Rules, then AEMO must notify the Market Participant within one Trading Day after the notification of the termination [Clause 4.30.9].
- 7.1.2. The Capacity Credit Allocations by a Market Participant for a Facility for a Trading Day exceed the Capacity Credits held by the Market Participant for the Facility on the Trading Day, as contemplated in clause 4.30.9, if the following inequality holds:

$$CC(p, f, d) < \sum_{a \in ALLOCATIONS(p, f, d)} CCA(a)$$

where:

Variable	Units	Definition
$CC(p, f, d)$	Capacity Credits	Bilaterally tradeable Capacity Credits for Market Participant $p$ in relation to Facility $f$ and Trading Day $d$ .



Variable	Units	Definition
<b><math>CCA(a)</math></b>	Capacity Credits	The quantity of Capacity Credits proposed to be allocated in Capacity Credit Allocation a.
<b><math>ALLOCATIONS(p, f, d)</math></b>	Set	The set of approved Capacity Credit Allocation Submissions made by Market Participant p in relation to Facility f and Trading Day d which have not been withdrawn.

- 7.1.3. Following receipt of a notice provided under clause 4.30.9, a Market Participant may reduce the number of Capacity Credits allocated in respect of the relevant Facility by withdrawing Capacity Credit Allocations and submitting Capacity Credit Allocation Submissions in accordance with clauses 4.30.6 and 4.30.1, respectively [Clause 4.30.10].
- 7.1.4. If, at 5:00 PM on the Scheduling Day, the Capacity Credit Allocations for a Market Participant with respect to a Facility exceeds the number of Capacity Credits held for the Facility, AEMO must, by 5:00 PM on the Trading Day for which the Capacity Credit Allocation relates:
- amend all of the relevant Capacity Credit Allocations proportionally, to ensure that the sum of the Capacity Credit Allocations in respect of the relevant Facility for the Market Participant for the Trading Day equal the number of Capacity Credits held for that Facility; and
  - for each amended Capacity Credit Allocation, notify each affected Market Participant of the details of the amendment [Clause 4.30.11].
- 7.1.5. AEMO must round numbers down to the nearest 0.001 Capacity Credits when proportionally amending Capacity Credit Allocations in accordance with paragraph 7.1.4.
- 7.1.6. AEMO must, when proportionally amending in accordance with paragraph 7.1.4, use the following equation to amend each Capacity Credit Allocation, a, for Market Participant p with respect to Facility f on Trading Day d [Clause 4.30.11]:

$$CCA_{after}(a) = \text{rounddown} \left( \frac{CCA_{before}(a)}{\sum_{b \in ALLOCATIONS(p, f, d)} CCA_{before}(b)} \times CC(p, f, d), 3 \right)$$

where:

Variable	Units	Definition
<b><math>CCA_{after}(a)</math></b>	Capacity Credits	The number of Capacity Credits allocated by Capacity Credit Allocation, a, after AEMO amends it.
<b><math>CCA_{before}(a)</math></b>	Capacity Credits	The number of Capacity Credits allocated by Capacity Credit Allocation, a, before AEMO amends it.
<b><math>CC(p, f, d)</math></b>	Capacity Credits	Bilaterally tradeable Capacity Credits for Market Participant p in relation to Facility f and Trading Day d.
<b><math>ALLOCATIONS(p, f, d)</math></b>	Set	The set of approved Capacity Credit Allocation Submissions made by Market Participant p in relation to Facility f and Trading Day d which have not been withdrawn.
<b><math>\text{rounddown}(x, y)</math></b>	Function	A function that rounds $x$ down to $y$ decimal places.

## APPENDIX A. RELEVANT CLAUSES OF THE WEM RULES

Table 3 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 3 Relevant clauses of the WEM Rules**

Clause
4.30.1
4.30.2
4.30.3
4.30.4
4.30.4
4.30.5
4.30.6
4.30.8
4.30.9
4.30.10
4.30.11
4.30.12

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