

# MARKET PROCEDURE: CERTIFICATION OF RESERVE CAPACITY

PREPARED BY: AEMO Reserve Capacity (WA)

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## VERSION RELEASE HISTORY

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6.0	30 November 2015	Changes resulting from the transfer of functions from the IMO to AEMO
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## 1. INTRODUCTION

### 1.1. Purpose and scope

- 1.1.1. This is the Certification of Reserve Capacity Procedure made under clauses 4.9.10 and 4.28C.15 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 this Procedure to the extent of any inconsistency.
- 1.1.3. The Procedure describes the processes that:
- (a) Market Participants must follow when applying for Certified Reserve Capacity **[Clause 4.9.10(a)]** or Early Certified Reserve Capacity **[Clause 4.28C.15]**;
    - (i) Certified Reserve Capacity is assigned; and
    - (ii) Reserve Capacity Obligation Quantities are set **[Clause 4.9.10(b)]**; and
  - (b) AEMO must follow in processing an application for Certified Reserve Capacity, including how:
  - (c) AEMO must follow in approving Capacity Credits associated with Early Certified Reserve Capacity **[Clause 4.28C.15]**.
- 1.1.4. This Procedure also specifies the format of data required to be submitted by a Market Participant applying for Certified Reserve Capacity **[Clause 4.9.3(a)]**.
- 1.1.5. In this Procedure, where obligations are conferred on a Rule Participant, that Rule Participant must comply with the relevant obligations in accordance with clauses 2.9.7, 2.9.7A and 2.9.8 of the WEM Rules, as applicable.

### 1.2. Definitions and interpretation

#### 1.2.1. Glossary

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

The words, phrases and abbreviations in the table below have the meanings set out opposite them in the table when used in this Procedure.

Term	Definition
DSOC Owner	In respect of Facilities sharing, or proposing to share, a Declared Sent Out Capacity (DSOC), the party that holds, or proposes to hold, the access arrangement to which the DSOC applies.
Temperature Dependence Curve	The information provided by a Market Participant under clause 4.10.1(e)(i) of the WEM Rules with respect to a generation system other than an Intermittent Generator, as detailed in the manufacturer's technical specifications or as determined by an independent engineering firm.
Wholesale Electricity Market System (WEMS)	An interface system that AEMO uses to administer and operate the Wholesale Electricity Market

### 1.2.2. Interpretation

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

### 1.3. Related Documents

The following Market Procedures, Power System Operation Procedures (PSOP) and market documents (available on the Market Web-Site<sup>1</sup>) provide background information to this Procedure:

Reference	Title
A	Market Procedure: Balancing Facility Requirements
B	Market Procedure: Declaration of Bilateral Trades and the Reserve Capacity Auction
C	Market Procedure: Facility Registration, De-Registration and Transfer
D	Market Procedure: Notices and Communications
E	Market Procedure: Reserve Capacity Performance Monitoring
F	Market Procedure: Reserve Capacity Security
G	Market Procedure: Reserve Capacity Testing
H	Market Procedure: Rule Participant Registration and De-Registration
I	PSOP: Facility Outages
J	WEMS MPI User Guide

<sup>1</sup> Available at <http://aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Procedures>.

## 2. MODIFICATION OF TIMEFRAMES

- 2.1.1. AEMO may modify or extend the dates or times specified in this Procedure in relation to the Reserve Capacity Cycle outlined in clause 4.1 of the WEM Rules. If AEMO extends a date or time, then it must publish a notice of the modified or extended time or date on the Market Web Site, which must include when the modified or extended date or time takes effect [**Clause 4.1.32**].
- 2.1.2. AEMO may, in its sole discretion, modify or extend other dates or times in this Procedure to the extent permitted under the WEM Rules.

## 3. APPLICATIONS FOR CERTIFICATION OF RESERVE CAPACITY

### 3.1. Submission of applications

- 3.1.1. A Market Participant may lodge an application for Certified Reserve Capacity including all supporting documentation as described in clause 4.10.1 of the WEM Rules in respect of a Reserve Capacity Cycle between:
- (a) 9.00 AM on the first Business Day falling on or following 1 May of Year 1 of the Reserve Capacity Cycle; and
  - (b) 5.00 PM on the last Business Day falling on or before 1 July of Year 1 of the Reserve Capacity Cycle [**Clauses 4.1.7, 4.1.11 and 4.9.1(a)**]; or
  - (c) In accordance with any modified or extended dates as per step 2.1.1
- 3.1.2. A Market Participant may lodge an application for Conditional Certified Reserve Capacity for a future Reserve Capacity Cycle at any time prior to 9:00 AM on the first Business Day falling on or following 1 May of Year 1 of the Reserve Capacity Cycle to which the application relates [**Clauses 4.1.7(b) and 4.9.1(b)**].
- 3.1.3. A Market Participant with a Facility that meets the criteria outlined in clause 4.28C.1 of the WEM Rules may lodge an application for Early Certified Reserve Capacity at any time before 1 January of Year 1 of the Reserve Capacity Cycle to which the application relates [**Clause 4.28C.2**]. Each application for Early Certified Reserve Capacity must relate to a single future Reserve Capacity Cycle [**Clause 4.28C.3**].
- 3.1.4. Before submitting an application for a Facility under step 3.1.1, 3.1.2 or 3.1.3, an applicant must ensure that it is registered as a Market Participant. [**Clause 4.28C.3**]
- 3.1.5. A Market Participant may then apply for certification of Reserve Capacity if [**Clause 4.8.1**]:
- (a) the Facility is a Registered Facility other than a Network; or
  - (b) the Facility is not a Registered Facility, but the Market Participant intends to have the Facility registered as a Registered Facility other than a Network by the commencement date of the Reserve Capacity Obligations for the relevant Reserve Capacity Cycle as specified in clause 4.1.26.

- 3.1.6. If the Facility is not a Registered Facility then the Market Participant must ensure the Facility name is registered in WEMS for the purposes of the Certified Reserve Capacity application in accordance with the Market Procedure: Facility Registration, De-Registration and Transfer. Registration of a Facility name in WEMS is an administrative process that is separate from the process of registering the Facility as a Registered Facility under the WEM Rules.
- 3.1.7. A Market Participant who lodges an application for Certified Reserve Capacity for a Facility must provide the information specified in clause 4.9.3 of the WEM Rules to AEMO. The format for the data specified in clause 4.10.1 that must be provided **[Clause 4.9.3(a)]** is set out in step 3.1.8 below. The information provided for each Facility must be accurate for the relevant Reserve Capacity Cycle. Further details on supporting information requirements are indicated by 'mandatory' and 'optional' submission fields in the application for Certified Reserve Capacity in WEMS.
- 3.1.8. A Market Participant must lodge an application for Certified Reserve Capacity, including any supporting documentation, through WEMS. Participants must include documentation for all mandatory submission fields and may include documentation for the optional submission fields where appropriate. Supporting documentation may be submitted in any of the following formats:
- (a) compressed ZIP files (where the files in the archive must be in any of the formats listed below);
  - (b) Microsoft Office (.xlsx, .xls, .docx, doc, pptx or .ppt);
  - (c) Adobe PDF;
  - (d) .txt or .csv; or
  - (e) common image formats (.jpg, .png, .gif, .bmp).

### 3.2. Specific requirements for Early Certified Reserve Capacity

- 3.2.1. In addition to the requirements of step 3.1.7, an application for Early Certified Reserve Capacity must:
- (a) relate to a single future Reserve Capacity Cycle **[Clause 4.28C.3]**; and
  - (b) state that the applicant intends to trade all assigned Certified Reserve Capacity bilaterally as defined in clause 4.14.2 of the WEM Rules **[Clause 4.28C.4]**.
- 3.2.2. An applicant for Early Certified Reserve Capacity must, within 30 Business Days of receiving the notification under step 4.10.1(b), ensure that AEMO holds the benefit of a Reserve Capacity Security equal to 25 percent of the Benchmark Reserve Capacity Price included in the most recent Request for Expressions of Interest at the specified time and date, multiplied by an amount equal to the amount of Early Certified Reserve Capacity assigned to the Facility under step 4.10.1(b) **[Clauses 4.28C.8 and 4.28C.9]**. For further details of the process refer to the Market Procedure for Reserve Capacity Security.



## **4. PROCESSING OF APPLICATIONS FOR CERTIFICATION OF RESERVE CAPACITY**

### **4.1. Acknowledgement of application**

- 4.1.1. AEMO must notify each applicant for Certified Reserve Capacity that its application has been received within one Business Day [**Clause 4.9.6**]. This notification is automated and provided through WEMS.
- 4.1.2. An applicant must contact AEMO and arrange to resubmit its application for Certified Reserve Capacity where it has not received a notification of receipt of the application within the timeframe in step 4.1.1. The application resubmission must be made during the applicable lodgement period specified in steps 3.1.1, 3.1.2 or 3.1.3 or as modified by AEMO under step 2.1.1 and in accordance with clause 4.1.11 of the WEM Rules [**Clause 4.9.7**].

### **4.2. Data accuracy and sufficiency assessment**

- 4.2.1. AEMO must check that:
  - (a) all required information has been provided;
  - (b) the information provided is of sufficient detail; and
  - (c) supporting information has been provided in respect of the capacity of the Facility.
- 4.2.2. A complete application with all supporting documentation for a submission must be provided prior to the application deadline specified in step 3.1.1b) [**Clause 4.1.11**]. The supporting information required is described in clause 4.10 of the WEM Rules.
- 4.2.3. Where AEMO, following its assessment in step 4.2.1, requires clarification of the information provided originally and/or further information to process the application:
  - (a) AEMO must as soon as practicable request clarification or further information; and
  - (b) The applicant must respond to the request as soon as practicable and limit any information provided to the scope of AEMO's request.

### **4.3. Assessment of application where Facility has previously been assigned Conditional Certified Reserve Capacity**

- 4.3.1. Where a Market Participant re-lodges an application for Certified Reserve Capacity for a Facility that has previously been assigned Conditional Certified Reserve Capacity, AEMO must check whether the:
  - (a) application is consistent with the information used to assign the Conditional Certified Reserve Capacity; and
  - (b) information remains correct as at 5:00 pm on the last Business Day falling on or before 1 July of Year 1 for that future Reserve Capacity Cycle [**Clause 4.9.5**].
- 4.3.2. A re-lodged application for Certified Reserve Capacity must include [**Clause 4.10.1(bA)**]:
  - (a) evidence of an Arrangement for Access or evidence that the Market Participant has accepted an Access Proposal from the relevant Network Operator made in respect of the Facility;

- (b) evidence that the Facility will be entitled to have access from a specified date;<sup>2</sup>
  - (c) where the Facility is not a Constrained Access Facility, evidence of the level of unconstrained network access associated with the Arrangement for Access or Access Proposal referred to in clause 4.10.1(bA)(i) of the WEM Rules;
  - (d) where relevant, whether the Facility is a Constrained Access Facility; and
  - (e) details of any constraints that may apply.
- 4.3.3. Where a re-lodged application does not include details of network access as required under step 4.3.2, AEMO must reject the application on the basis that the Market Participant has not provided all the information required under clause 4.10.1(bA) of the WEM Rules.
- 4.3.4. Where AEMO determines that a re-lodged application for Certified Reserve Capacity:
- (a) is consistent with the information used to assign the Conditional Certified Reserve Capacity;
  - (b) is correct; and
  - (c) provides details of network access required under step 4.3.2,

AEMO must confirm the Certified Reserve Capacity, Reserve Capacity Obligation Quantity and the Reserve Capacity Security levels. For an Intermittent Generator, the level of Certified Reserve Capacity must be re-calculated in accordance with clause 4.11.2(b) of the WEM Rules **[Clause 4.9.5(c)]**.

- 4.3.5. Where AEMO determines that:
- (a) a re-lodged application is inconsistent with the information used to assign the Conditional Certified Reserve Capacity; or
  - (b) the information in the re-lodged application is inaccurate,

AEMO must disregard the Conditional Certified Reserve Capacity when processing the application **[Clause 4.9.5(d)]**.

## 4.4. Timing assessment

- 4.4.1. AEMO must not assign Certified Reserve Capacity to a Facility that<sup>3</sup>:
- (a) is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 1 October of Year 3 of the relevant Reserve Capacity Cycle **[Clause 4.11.1(c)(ii)]**; or
  - (b) will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, earlier than 1 August of Year 4 of the relevant Reserve Capacity Cycle **[Clause 4.11.1(c)(iii)]**; or
  - (c) is not expected to be a Registered Facility by the time its Reserve Capacity Obligations for the Reserve Capacity Cycle would take effect **[Clause 4.11.1(f)]**.

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<sup>2</sup> The specified date must be prior to when the Facility, or part of the Facility, will have completed all Commissioning Tests and be capable of meeting Reserve Capacity Obligations in full **[Clause 4.10.1(c)(iii)(7)]**.

<sup>3</sup> For a full list of circumstances where AEMO must not assign Certified Reserve Capacity, or where AEMO may assign Certified Reserve Capacity but must not exceed specified limits, see clause 4.11.1 of the WEM Rules.

## 4.5. Constrained Access Entitlement assessment

- 4.5.1. Where a Market Participant provides information under clause 4.10.1(bA) of the WEM Rules that a Facility is a Constrained Access Facility, AEMO must request the Network Operator to determine the Constrained Access Entitlement for the Facility **[Clause 4.10A.1]**.
- 4.5.2. AEMO may confirm with the Network Operator that the information provided by the Market Participant under step 4.5.1 is complete, accurate and up to date **[Clause 4.11.5]**.
- 4.5.3. Where there is any inconsistency between the information provided under steps 4.5.1 and 4.5.2, the requirement for AEMO to request the Network Operator to determine the Constrained Access Entitlement for the relevant Facility under clause 4.10A.1 of the WEM Rules will be based on the confirmation provided by the Network Operator **[Clause 4.10A.2]**.
- 4.5.4. Where the Network Operator requires information from AEMO to determine the Constrained Access Entitlement for a Constrained Access Facility, AEMO must **[Clause 4.10A.6]**:
  - (a) where the information is reasonably available to it and within two Business Days of a request from the Network Operator, provide the Network Operator with any information requested by the Network Operator irrespective of the confidentiality status of that information under the WEM Rules; and
  - (b) inform the Network Operator of the confidentiality status of the information provided.

## 4.6. Outage assessment

- 4.6.1. AEMO must identify **[Clause 4.11.1(h)]**:
- (a) each Facility that has been in Commercial Operation for at least 36 months with Forced Outage or combined Forced Outage and Planned Outage (outage) rates greater than the applicable percentage specified in the table in clause 4.11.1D of the WEM Rules, over the preceding 36 months; and
  - (b) each Facility that has been in Commercial Operation for less than 36 months, or is yet to commence Commercial Operation, where AEMO has cause to believe that the Facility is likely to have outage rates greater than the applicable percentage specified in the table in clause 4.11.1D of the WEM Rules over the first 36 months of Commercial Operation.
- 4.6.2. For the purpose of step 4.6.1, AEMO must calculate the Planned Outage rate and Forced Outage rate for each Facility in accordance with the Power System Operation Procedure: Facility Outages **[Clause 4.11.1(h)]**.
- 4.6.3. For each Facility identified in step 4.6.1, AEMO must notify the applicant that its Facility has exceeded the relevant outage rates, or that AEMO has reason to believe that the Facility is likely to exceed the relevant outage rates, as applicable. This notification must be provided to the applicant at least 15 Business Days prior to the deadline in step 4.10.1. When assessing whether a Facility is likely to exceed the relevant outage rates, AEMO may consider factors including, but not limited to, information provided by the Market Participant in its Certified Reserve Capacity application and historical outage requests.
- 4.6.4. Each notification issued under step 4.6.3 may include a request for information from the applicant in relation to the present and future performance of the Facility, including:
- (a) reasons for the outages;
  - (b) the steps being taken, or that have been taken, to reduce the level of outages; and
  - (c) the expected level of future outages.
- 4.6.5. Subject to clauses 4.11.1B and 4.11.1C of the WEM Rules, AEMO may decide not to assign any Certified Reserve Capacity to a Facility identified in step 4.6.1, or to assign a lesser quantity of Certified Reserve Capacity to such a Facility than it would otherwise assign in accordance with clause 4.11.1 of the WEM Rules **[Clause 4.11.1(h)]**.
- 4.6.6. In making a decision under step 4.6.5, and without limiting the ways in which AEMO may inform itself in either case, AEMO may **[Clause 4.11.1B]**:
- (a) use any information provided under step 4.6.4;
  - (b) seek such additional information from the Market Participant that AEMO considers is relevant to the exercise of its discretion;
  - (c) use information provided in reports related to the Facility submitted by:
    - i. the Market Participant specified under clause 4.27.3 of the WEM Rules; and
    - ii. any other person under clause 4.27.6 of the WEM Rules; and
  - (d) consult with any person AEMO considers suitably qualified to provide an opinion or information on issues relevant to the exercise of AEMO's discretion.

- 4.6.7. In making a decision under step 4.6.5, AEMO [**Clause 4.11.1C**]:
- (a) must be satisfied that its decision would not, on balance, be contrary to the Wholesale Market Objectives;
  - (b) may:
    - (i) consider the extent to which the Reserve Capacity that can be provided by the Facility is necessary to meet the Reserve Capacity Target;
      - (A) the size of the Facility;
      - (B) the operational characteristics of the Facility;
      - (C) the extent to which the Facility contributes to Power System Security or Power System Reliability through fuel diversity or location; and
      - (D) the demonstrated reliability of the Facility;
    - (ii) consider whether the Reserve Capacity provided by the Facility is of material importance to the South West Interconnected System (SWIS), having regard to:
    - (iii) assess the effectiveness of strategies undertaken by the applicant in the previous three years to reduce outages, and consider the likelihood that strategies proposed by the applicant to maximise the availability of the Facility in the relevant Reserve Capacity Cycle will be effective;
    - (iv) consider whether a decision to not assign Certified Reserve Capacity to the Facility is likely to result in a material decrease in competition in at least one market;
    - (v) consider any positive or negative impacts on the long term price of electricity supplied to consumers that might arise if Certified Reserve Capacity was not assigned to the Facility; and
    - (vi) consider any other matter AEMO determines to be relevant.
- 4.6.8. Where AEMO determines under step 4.6.5 to not assign Certified Reserve Capacity to a Facility, or to assign a lesser quantity than it would otherwise assign in accordance with clause 4.11.1 of the WEM Rules, it must notify the applicant of its decision and the reasons for its decision in accordance with the timeframes outlined in step 4.10.1 of this procedure. Otherwise, AEMO must continue to assess the application in accordance with the WEM Rules and this Market Procedure.
- 4.6.9. AEMO must publish the reasons for the decision made under step 4.6.5 on the Market Web Site to the extent those reasons do not contain confidential information [**Clause 4.11.1A**].

## 4.7. Balancing Facility Requirements

- 4.7.1. AEMO must not assign Certified Reserve Capacity to a Balancing Facility with a rated capacity equal to or greater than 10 MW unless AEMO is satisfied the Facility is likely to be able to meet the Balancing Facility Requirements specified in the Market Procedure: Balancing Facility Requirements [**Clause 4.11.12**].

## 4.8. Facilities sharing a Declared Sent Out Capacity

- 4.8.1. If AEMO receives applications for Certified Reserve Capacity for a Reserve Capacity Cycle for two or more generation Facilities that share a Declared Sent Out Capacity (DSOC) in an access arrangement, it must:
- (a) request that each relevant applicant provides AEMO details of how the DSOC will be shared among the Facilities; and
  - (b) limit the total quantity of Certified Reserve Capacity assigned to the Facilities so that it does not exceed the DSOC quantity [**Clause 4.11.1(bB)**].
- 4.8.2. If a Market Participant receives a request described in step 4.8.1a), the Market Participant must use its best endeavours to ensure that the DSOC Owner provides a written response to AEMO within five Business Days. The response must:
- (a) be signed:
    - i. if the DSOC Owner is a company as defined in the *Corporations Act 2001*, in accordance with section 127 of the *Corporations Act 2001*;
    - ii. if the DSOC Owner is a Market Participant but not a company as defined in the *Corporations Act*, by an Authorised Officer nominated by the Market Participant; or
    - iii. otherwise, in a manner reasonably acceptable to AEMO; and
  - (b) identify, for each Facility proposed to share the DSOC, the level of network access that will be available for use by that Facility in the relevant Capacity Year.
- 4.8.3. If AEMO receives a response from the DSOC Owner to a request sent in step 4.8.1a) that meets the requirements in step 4.8.2, then AEMO must:
- (a) within one Business Day, acknowledge receipt of the response by email; and
  - (b) for each affected Facility:
    - i. within one Business Day, notify the Market Participant by email of the share of the DSOC assigned to the Facility by the DSOC Owner; and
    - ii. for the purposes of steps 5.2.2 and 6.2.2, replace the level of network access provided in the application for Certified Reserve Capacity with the level specified for the Facility by the DSOC Owner in its response.
- 4.8.4. If AEMO does not receive a response from the DSOC Owner to a request sent in step 4.8.1a) that meets the requirements in step 4.8.2, then AEMO must reject all the applications referred to in the request on the grounds the applications do not meet the requirements under clause 4.10.1(bA) of the WEM Rules.

## 4.9. Facility specific assessment

- 4.9.1. In addition to the requirements above, AEMO must further assess applications for Certified Reserve Capacity in accordance with:
- (a) step 5, for a Scheduled Generator that has nominated to use the methodology described in clause 4.11.1(a) of the WEM Rules;
  - (b) step 6, for Intermittent Generators and other generation facilities that have nominated to use the methodology described in clause 4.11.2(b) of the WEM Rules; and

(c) step 6.5.2, for Demand Side Programmes and Interruptible Loads.

4.9.2. When assessing applications for Certified Reserve Capacity AEMO must apply the principles of clause 4.11.1 of the WEM Rules as a whole, and steps 5, 6 and 7 are not intended to limit AEMO's assessment.

## **4.10. Notifications regarding Certified Reserve Capacity**

4.10.1. AEMO must notify each applicant for Certified Reserve Capacity of the quantity of Certified Reserve Capacity or Conditional Certified Reserve Capacity assigned to each Facility and the initial Reserve Capacity Obligation Quantity set for the Facility:

- (a) (for the current Reserve Capacity Cycle) by 5.00 PM on the last Business Day on or before 19 August of Year 1 of that Reserve Capacity Cycle [**Clauses 4.9.8(a) and 4.1.12**]; or
- (b) (for a future Reserve Capacity Cycle in the case of an application for Conditional Certified Reserve Capacity or Early Certified Reserve Capacity) within 90 days of AEMO receiving the application [**Clause 4.28C.7**],

or as extended under step 2.1.1.

4.10.2. AEMO must decide whether or not to assign Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, and if so, the quantity to be assigned [**Clause 4.9.9**]. If AEMO assigns Certified Reserve Capacity to a Facility, the notification provided in step 4.10.1 must include the information specified in clause 4.9.9 of the WEM Rules. The notification to applicants may be provided through WEMS.

4.10.3. Following a notification under step 4.10.2, a Market Participant may request AEMO to provide the calculations upon which AEMO's assigned Certified Reserve Capacity determinations are based [**Clause 4.9.9(e)**].

4.10.4. If AEMO receives a request under step 4.10.3, AEMO will endeavour to provide the Market Participant with the calculations upon which its determinations are based within 10 Business Days of receiving the request.

4.10.5. AEMO must notify each applicant for Early Certified Reserve Capacity of the quantity assigned (within 90 days of receipt of the application), the initial Reserve Capacity Obligation Quantity and, provided the Reserve Capacity Security has been provided to AEMO, the quantity of Capacity Credits assigned to the Facility [**Clauses 4.28C.6, 4.28C.7 and 4.28C.10**].

## **5. ASSESSMENT FOR GENERATION FACILITIES BEING ASSESSED UNDER CLAUSE 4.11.1(a)**

### **5.1. Plant capability assessment**

5.1.1. AEMO must determine its reasonable expectation of capacity likely to be available, after netting off capacity required to serve Intermittent Loads, embedded loads and Parasitic Loads, for each Facility for Peak Trading Intervals on Business Days in the period from the Trading Day starting on 1 October of Year 3 of the Reserve Capacity Cycle until the end of July of Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41°C [**Clause 4.11.1(a)**]. This requirement is subject to clause 4.11.2 of the WEM Rules.

- 5.1.2. The amount of capacity likely to be available, as determined in step 5.1.1, must not exceed the sum of the capacities specified by the Market Participant under clauses 4.10.1(e)(ii) and 4.10.1(e)(iii) of the WEM Rules **[Clause 4.11.1(b)]**. This step 5.1.2 does not apply with respect to an Intermittent Generator.
- 5.1.3. In determining the amount of capacity likely to be available in step 5.1.1, AEMO must consider the following information, as applicable:
- (a) the historical sent out generation of the Facility, as observed from Meter Data Submissions;
  - (b) the results of Reserve Capacity Tests that have been conducted during the previous 12 months;
  - (c) technical specifications for the Facility, as provided by the original equipment manufacturer or an independent engineering firm; and
  - (d) the Temperature Dependence Curve for the Facility.

## 5.2. Network access assessment

- 5.2.1. AEMO must assess the evidence of network access provided by the applicant, including evidence that the Facility will be entitled to have access from a specified date<sup>4</sup> provided under clauses 4.10.1(bA)(ii) and 4.11.1(bA) of the WEM Rules.
- 5.2.2. Where the Facility is not a Constrained Access Facility, AEMO must assess evidence of the level of unconstrained access and details of any constraints that may apply **[Clause 4.11.1(bA)(ii)]**. If applicable AEMO will undertake the process in step 4.8 of this Market Procedure.
- 5.2.3. Where the Facility is a Constrained Access Facility, AEMO must assess details of any constraints that may apply **[Clauses 4.11.1(bA)(i)]** If applicable AEMO will undertake the processes in step 4.5 and step 4.8 of this Market Procedure.
- 5.2.4. In respect of a Facility that will be subject to a Network Control Service Contract, AEMO must not assign Certified Reserve Capacity in excess of **[Clause 4.11.1(g)]**:
- (a) the Constrained Access Entitlement of the Facility at the date and time specified in clause 4.1.12(b) of the WEM Rules, if applicable; or
  - (b) the capacity that AEMO believes that Facility can usefully contribute given its location and any network constraints that are likely to occur.
- 5.2.5. If AEMO requests a Network Operator to confirm data or information under clause 4.11.5(a) of the WEM Rules, it must not provide information to the Network Operator that was provided to it as part of an application for Certified Reserve Capacity, except with the permission of the applicant.
- 5.2.6. Step 5.2.5 does not apply if AEMO must provide information under clause 4.10A.6(a) of the WEM Rules.

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<sup>4</sup> The specified date must be prior to when the Facility, or part of the Facility, will have completed all Commissioning Tests and be capable of meeting Reserve Capacity Obligations in full **[Clause 4.10.1(c)(iii)(7)]**.



### 5.3. Assessment of fuel supply, staffing constraints and other restrictions

- 5.3.1. To determine whether AEMO reasonably expects that the Facility is likely to be available at the level of capacity determined in step 5.1.1 for Peak Trading Intervals on Business Days, AEMO must assess in accordance with clause 4.11.1(a) of the WEM Rules:
- (a) details of primary and any alternative fuels<sup>5</sup>, including:
    - (ii) where the Facility has primary and alternative fuels:
      - (a) the process for changing from one fuel to another; and
      - (b) the fuel or fuels which the Facility is to use in respect of the application for Certified Reserve Capacity [Clause 4.1.10(e)(v)(1)]; and
    - (iii) details acceptable to AEMO together with supporting evidence of both firm and any non-firm fuel supplies and the factors that determine restrictions on fuel availability that could prevent the Facility operating at its full capacity for Peak Trading Intervals on Business Days [Clause 4.10.1(e)(v)(2)]; and
  - (b) any restrictions on the availability of the Facility due to staffing constraints or other restrictions [Clause 4.10.1(g)].
- 5.3.2. When making a determination in step 5.3.1 AEMO may:
- (a) consider the expected operational characteristics of the Facility;
  - (b) consider the potential impacts that limitations on the availability of the Facility may have on its ability to contribute to Power System Adequacy; and
  - (c) consider the water requirements for the Facility.

### 5.4. Environmental approval assessment

- 5.4.1. Where a Facility, or part of the Facility, is yet to enter service, AEMO must assess the evidence of Environmental Approvals or evidence that the necessary Environmental Approvals will be granted in time to meet the Facility's Reserve Capacity Obligations.
- 5.4.2. If AEMO reasonably expects that the Environmental Approvals that have been granted or are being sought are insufficient to satisfy the requirement of step 5.1.1, it may determine that the Facility is likely to be available for Peak Trading Intervals on Business Days at a lower level of capacity.

### 5.5. Assignment of Certified Reserve Capacity

- 5.5.1. Based on the outcome of assessments in steps 5.1 to 5.4, but subject to any other relevant principles in clause 4.11.1 of the WEM Rules, AEMO will assign a quantity of Certified Reserve Capacity to a Facility according to its reasonable expectation of the amount of Reserve Capacity likely to be available from the Facility, after netting off the capacity required to serve Intermittent Loads, embedded loads or Parasitic Loads for Peak Trading Intervals on Business Days in the period from the Trading Day starting on 1 October in Year 3 to 31 July in Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41°C [Clause 4.11.1(a)]. This will be set to the minimum of:
- (a) the level nominated in the application;

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<sup>5</sup> A Facility may satisfy its fuel obligations using a combination of primary and alternative fuels.

- (b) the maximum Sent Out Capacity of the Facility as determined in step 5.1.1;
- (c) the level of unconstrained access as assessed in step 5.2.2; if applicable;
- (d) the level of Constrained Access Entitlement in step 4.5.1; if applicable;
- (e) a lower level of capacity as determined in step 5.3.1, if applicable;
- (f) a lower level of capacity as determined in step 5.4.2, if applicable.

## **5.6. Initial Reserve Capacity Obligation Quantity**

- 5.6.1. AEMO must determine whether there are times when staffing or other factors will limit the Facility's availability to be dispatched.
- 5.6.2. AEMO must set the initial Reserve Capacity Obligation Quantity for the Facility at a level equal to the Certified Reserve Capacity except for those times determined at step 5.6.1, in which case AEMO may set the initial Reserve Capacity Obligation Quantity at a lower level for those periods [Clause 4.12.4(b)(iii)].
- 5.6.3. For a generation system that is not an Intermittent Generator, and subject to clause 4.12.4 of the WEM Rules, the Reserve Capacity Obligation Quantity:
  - (a) must not exceed the Certified Reserve Capacity held by the Market Participant for the Facility [Clause 4.12.4(a)];
  - (b) must not be less than the amount specified in clause 4.10.1(e)(ii) of the WEM Rules except on Trading Days when the maximum daily temperature at the site of the generator exceeds 41°C, in which case the Reserve Capacity Obligation Quantity must not be less than the amount specified in clause 4.10.1(e)(ii) adjusted to an ambient temperature of 45°C [Clause 4.12.4(b)(i)]; and
  - (c) may exceed the amount in clause 4.12.4(b)(i) by an amount up to the amount specified in clause 4.10.1(e)(iii), adjusted to an ambient temperature of 45°C on Trading Days when the maximum daily temperature at the site of the generator exceeds 41°C, for not more than the maximum duration specified in accordance with clause 4.10.1(e)(iii) [Clause 4.12.4(b)(ii)].

## **6. ASSESSMENT FOR GENERATION FACILITIES BEING ASSESSED UNDER CLAUSE 4.11.2(b) OF THE WEM RULES**

### **6.1. Consideration of nomination to use the methodology under clause 4.11.2(b) of the WEM Rules**

- 6.1.1. Where an applicant nominates for a Facility to be assessed under the methodology described in clause 4.11.2(b) of the WEM Rules, AEMO may reject that nomination if it reasonably believes that the capacity of the Facility has permanently declined, or is anticipated to permanently decline prior to or during the Reserve Capacity Cycle to which the Certified Reserve Capacity relates [Clause 4.11.2(a)].
- 6.1.2. If AEMO rejects a nomination under step 6.1.1, it must process the application as if the applicant had nominated to use the methodology described in clause 4.11.1(a) of the WEM Rules under step 5 rather than the methodology described in clause 4.11.2(b) of the WEM Rules [Clause 4.11.2(aA)].

## 6.2. Network access assessment

- 6.2.1. AEMO must assess the evidence of network access provided by the applicant including that the Facility will be entitled to have access from a specified date<sup>6</sup> [Clauses 4.10.1(bA)(ii) and 4.11.1(bA)].
- 6.2.2. Where the Facility is not a Constrained Access Facility, AEMO must assess evidence of the level of unconstrained access and details of any constraints that may apply [Clause 4.11.1(bA)(ii)]. If applicable AEMO will undertake the process in step 4.8 of this Market Procedure.
- 6.2.3. Where the Facility is a Constrained Access Facility AEMO must assess details of any constraints that may apply [Clauses 4.11.1(bA)(i)]. If applicable AEMO will undertake the processes in step 4.5 and step 4.8 of this Market Procedure.
- 6.2.4. For a Facility that will be subject to a Network Control Service Contract, AEMO must not assign Certified Reserve Capacity in excess of:
- (a) the Constrained Access Entitlement of the Facility at the date and time specified in clause 4.1.12(b) of the WEM Rules, if applicable; or
  - (b) the capacity that AEMO believes that Facility can usefully contribute given its location and any network constraints that are likely to occur [Clause 4.11.1(g)].
- 6.2.5. If AEMO requests a Network Operator to confirm data or information under clause 4.11.5(a) of the WEM Rules, it must not provide information to the Network Operator that was provided to it as part of an application for Certified Reserve Capacity, except with the permission of the applicant.
- 6.2.6. Step 6.2.5 does not apply if AEMO must provide information under clause 4.10A.6(a) of the WEM Rules.

## 6.3. Assessment of Independent Expert Report

- 6.3.1. AEMO must assess the accuracy of an independent expert report provided under clause 4.10.3 of the WEM Rules. This assessment may consider the following factors:
- (a) the configuration of the Facility that was used to develop the report;
  - (b) the level of network access available, or expected to be available, to the Facility as assessed in step 6.2.1;
  - (c) the observed sent out generation of similar Facilities, if applicable;
  - (d) any restrictions on the availability of the Facility, as specified by the applicant under clause 4.10.1(g) of the WEM Rules; and
  - (e) any other factors that AEMO considers relevant.
- 6.3.2. If in step 6.3.1, AEMO reasonably considers the independent expert report to be inaccurate, it may determine alternative estimates of the expected energy that would have been sent out by the Facility had it been in operation with the configuration proposed in the application for Certified Reserve Capacity to be used in the Relevant Level Methodology [Appendix 9, Step 10].

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<sup>6</sup> The specified date must be prior to when the Facility, or part of the Facility, will have completed all Commissioning Tests and be capable of meeting Reserve Capacity Obligations in full [Clause 4.10.1(c)(iii)(7)].

## 6.4. Assignment of Certified Reserve Capacity

- 6.4.1. AEMO must assign a quantity of Certified Reserve Capacity equal to the minimum of:
- (a) the Relevant Level, determined in accordance with the Relevant Level Methodology prescribed in Appendix 9 of the WEM Rules;
  - (b) the level of unconstrained access assessed in step 6.2.2, if applicable; and
  - (c) the level of Constrained Access Entitlement in step 4.5.1, if applicable [**Clause 4.11.1(bA)(i)**];
- but subject to any other relevant principles in clause 4.11.1 of the WEM Rules.

## 6.5. Initial Reserve Capacity Obligation Quantity

- 6.5.1. AEMO must set the initial Reserve Capacity Obligation Quantity to zero for an Intermittent Generator [**Clause 4.12.4(aA)**].
- 6.5.2. AEMO must set the initial Reserve Capacity Obligation Quantity for a generation system other than an Intermittent Generator in accordance with clause 4.12.4(b) of the WEM Rules.

## 7. ASSESSMENT FOR DEMAND SIDE PROGRAMMES OR INTERRUPTIBLE LOADS

### 7.1. Assessment of availability restrictions

- 7.1.1. AEMO must assess the availability limits specified by the applicant under clause 4.10.1(f) of the WEM Rules and must reject any application where the specified availability limits are less than the minimum requirements specified in that clause. AEMO will reject applications where the notice period is greater than 2 hours for a Demand Side Programme [**Clause 4.11.1(c)(vi)**].
- 7.1.2. AEMO must allocate each Facility to an Availability Class [**Clause 4.11.4 and Appendix 3**]. Demand Side Programmes will be allocated Class 2, unless available for all Trading Intervals.

### 7.2. Facility capability assessment

- 7.2.1. AEMO must determine:
- (a) the quantity of capacity that it reasonably expects to be available from the Facility during the periods specified in clause 4.10.1(f)(vi) of the WEM Rules, after netting off capacity required to serve the Minimum Consumption for each of the Facility's Associated Loads for the specified period [**Clause 4.11.1(j)(i)**]; and
  - (b) the amount by which the Facility could reduce its consumption, measured as a decrease from the Facility's Relevant Demand, by the end of one Trading Interval in response to a Dispatch Instruction requiring it to reduce consumption from the beginning of the Trading Interval at the ramp rate proposed for the Facility under clause 4.10.1(f)(vii) of the WEM Rules, for which purpose AEMO may have regard to the ramp rate proposed under clause 4.10.1(f)(vii) of the WEM Rules and any other information AEMO considers relevant [**Clause 4.11.1(j)(ii)**].
- 7.2.2. In determining the capacity in step 7.2.1, AEMO must have regard to the following information, as applicable:

- (a) the previous performance of the Facility, where applicable, including the results of Reserve Capacity Tests;
- (b) evidence of contracts with Associated Loads provided by the applicant;
- (c) evidence that loads are being actively pursued to be associated with a Demand Side Programme;
- (d) the estimated Relevant Demand for the Facility, or loads that are expected to be associated with the Facility, determined in accordance with Appendix 10;
- (e) any restrictions on the availability of the Facility due to staffing constraints or any other restrictions, as specified by the applicant under clause 4.10.1(g) of the WEM Rules;
- (f) the proposed DSP Ramp Rate Limit provided according to clause 4.10.1(f)(vii) of the WEM Rules;
- (g) the history of the applicant in procuring DSM capacity; and
- (h) any other factors that AEMO considers relevant.

7.2.3. In making a decision in step 7.2.1, and without limiting the ways in which AEMO may inform itself in either case, AEMO may:

- (a) seek such additional information from the Market Participant that AEMO considers is relevant to the exercise of its discretion;
- (b) use information provided in reports or opinion on such reports related to the Facility submitted by:
  - i. the Market Participant specified under clause 4.27.3 of the WEM Rules; and
  - ii. any other person under clause 4.27.6 of the WEM Rules; and
- (c) consult with any person AEMO considers suitably qualified to provide an opinion or information on issues relevant to the exercise of AEMO's discretion [**Clause 4.11.1B(c)(ii)**].

### **7.3. Assignment of Certified Reserve Capacity**

7.3.1. Unless it has rejected the application under step 7.1.1, AEMO must assign Certified Reserve Capacity to a Facility equivalent to the quantity determined in step 7.2.1 but subject to any other relevant principles in clause 4.11.1 of the WEM Rules.

### **7.4. Initial Reserve Capacity Obligation Quantity**

7.4.1. Subject to clause 4.12.4 of the WEM Rules, where AEMO establishes the initial Reserve Capacity Obligation Quantity to apply for a Facility for a Trading Interval:

- (a) the Reserve Capacity Obligation Quantity must not exceed the Certified Reserve Capacity held by the Market Participant for the Facility; and
- (b) except where otherwise precluded by clause 4.12.4 of the WEM Rules, the Reserve Capacity Obligation Quantity:

- (i) will equal zero once the capacity has been dispatched under clause 7.6.1C(d) or 7.6.1C(e) of the WEM Rules for the number of hours per year that are specified under clause 4.10.1(f)(ii) of the WEM Rules;
- (ii) will equal zero for the remainder of a Trading Day in which the capacity has been dispatched under clause 7.6.1C(d) or 7.6.1C(e) of the WEM Rules for the number of hours per day that are specified under clause 4.10.1(f)(iii) of the WEM Rules;
- (iii) must account for staffing and other restrictions on the ability of the Facility to curtail energy upon request; and
- (iv) will equal zero for Trading Intervals which fall outside of the periods specified in clause 4.10.1(f)(vi) of the WEM Rules [**Clause 4.12.4(c)**].