



WEM Procedure: Certification of Reserve Capacity

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Version Release History

Version	Effective Date	Summary of Changes
1.0	21 September 2006	First Issue – Market Procedure for Certification of Reserve Capacity
2.0	27 June 2008	Amendments to Market Procedure resulting from PC_2008_04
3.0	15 December 2010	Amendments to Market Procedure resulting from PC_2009_04
4.0	18 March 2013	Amendments to Market Procedure resulting from PC_2012_07
5.0	1 January 2015	Amendments to Market Procedure resulting from PC_2013_06
6.0	30 November 2015	Changes resulting from the transfer of functions from the IMO to AEMO
7.0	1 October 2017	Amendments to Market Procedure resulting from AEPC_2017_04
8.0	1 July 2019	Changes resulting from Procedure Change Proposal APEC_2019_06 related to: <ul style="list-style-type: none"> the Rule Change Proposal RC_2014_06: Removal of Resource Plans and Dispatchable Loads; and the Transfer of the Procedure to the new AEMO template, formatting amendments and minor administrative changes to align to WEM Rules clause references and wording.
9.0	15 June 2020	Amendments to Market Procedure resulting from AEPC_2020_02
10.0	15 April 2024	Amendments to WEM Procedure resulting from AEPC_2024_02
11.0	14 April 2025	Amendments to WEM Procedure resulting from AEPC_2025_02
12.0	1 January 2026	Amendments to reflect changes to ESM Rules via the <i>Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025, Schedule 2</i> , and to reflect operational improvements to the Certification of Reserve Capacity process and the Early Certified Reserve Capacity process.
13.0	14 April 2026	Amendments to WEM Procedure resulting from AEPC_2026_04.

IMPORTANT NOTICE – EXPLANATORY NOTES

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1. Introduction

1.1. Purpose and scope

- 1.1.1. This WEM Procedure: Certification of Reserve Capacity (Procedure) is made in accordance with AEMO's functions under clause 2.1A.2(h) of the Electricity System and Market Rules (ESM Rules).
- 1.1.2. The *Electricity Industry Act 2004*, the ESM Regulations and the ESM 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 outline processes for:
- (a) the procedures that Market Participants must follow when applying for Certified Reserve Capacity **[clause 4.9.10(a)]**;
 - (b) the methodology AEMO uses for determining Forced Outage rates, which must treat Charge Level shortfalls for Electric Storage Resources, as calculated under clause 4.26.1E, as Forced Outages **[clause 4.9.10(b)]**;
 - (c) the procedures AEMO must follow when processing applications for Certified Reserve Capacity, including:
 - (i) how Certified Reserve Capacity is assigned **[clause 4.9.10(c)(i)]**; and
 - (ii) how AEMO will account for any degradation of an Electric Storage Resource, based on **[clause 4.9.10(c)(ii)]**:
 1. the performance standards and specifications for the Electric Storage Resource provided by the relevant manufacturer; and
 2. the performance of the Electric Storage Resource in the Capacity Year at the time the application for certification of Reserve Capacity is required to be processed, where available;
 - (iii) how AEMO will assess whether a Facility Technology Type within a Facility is fuelled by Eligible Renewable Energy Sources based on **[clause 4.9.10(c)(iii)]**:
 1. fuel supply contracts, if the Market Participant proposes to purchase renewable fuel for use in a Non-Intermittent Generator it owns, controls or operates;
 2. historical Intermittent Generator Output, if the Market Participant proposes to store renewable electricity generated by a Facility it owns, controls or operates in an Electric Storage Resource that it also owns, controls or operates;
 3. energy supply contracts, if the Market Participant proposes to purchase renewable electricity from another Market Participant for use in an Electric Storage Resource it owns, controls or operates;

4. energy supply contracts, if the Market Participant is selling renewable energy to another Market Participant, so that it is not available for storage in an Electric Storage Resource that it owns, controls or operates; and
 5. historical dispatch levels for an Energy Producing System;
- (d) the process for the application of clause 4.28C and the matters AEMO will have regard to in forming its opinion under clause 4.28C.1(d) **[clause 4.28C.15]**; and
- (e) the information required to be provided by a Market Participant under clause 4.10A.6 in support of its nomination that a Facility be classified as a Network Augmentation Funding Facility **[clause 4.10A.11]**.
- 1.1.5. Appendix A of this Procedure outlines the head of power clauses that this Procedure is made under, as well as other clauses of the ESM Rules that require an obligation, process or requirement to be documented in this Procedure.

1.2. Definitions

- 1.2.1. Terms defined in the *Electricity Industry Act 2004*, the ESM Regulations and the ESM 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	Definition
Component	A component (an Electric Storage Resource, an Intermittent Generating System, or a Non-Intermittent Generating System) that forms part of a Scheduled Facility or Semi-Scheduled Facility.
Declared Sent Out Capacity Owner	In respect of two or more Facilities that share (or that are proposed to share) a Declared Sent Out Capacity, the party or proposed party (not being a Network Operator) to the Arrangement for Access or Access Proposal to which the Declared Sent Out Capacity relates.
Insolvent	A Market Participant that is insolvent within the meaning of clause 9.19.2.
Firm	A fuel supply and transport arrangement (or a series of fuel supply and transport arrangements) under which a party has a legally enforceable right to be supplied with or to receive delivery of a specified quantity or a nominated quantity of fuel, except in the case of events, including force majeure events, that are beyond the reasonable control of the relevant parties.
Indicative Facility Class	Has the meaning given in the WEM Procedure: Indicative Facility Class.
Indicative Facility Technology Type	Has the meaning given in the WEM Procedure: Indicative Facility Class.
Nameplate Capacity	For an existing Facility, the nameplate capacity recorded in Standing Data. For a new Facility that does not have Standing Data at the time of certification, the nameplate capacity provided by the relevant manufacturer.
Non-Firm	A fuel supply or transport arrangement that is not Firm.
Renewable Energy Certificate	As defined in the <i>Renewable Energy (Electricity) Act 2000 (Cwlth)</i> .
Wholesale Electricity Market System or WEMS	An interface software system 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 ESM 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 ESM Rules or WEM Procedures includes any associated forms required or contemplated by the ESM 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 an appendix refers to an appendix of this Procedure.
- (h) A reference to a clause refers to a clause or section of the ESM Rules.
- (i) References to ESM Rules in this Procedure in bold and square brackets **[Clause XXX]** are included for convenience only, and do not form part of this Procedure.
- (j) Text located in boxes and headed as Explanatory Note E[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.
- (k) 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. This Procedure must be read in conjunction with the ESM Rules relevant to this WEM Procedure, noting that in many cases the ESM Rules provide descriptive processes, timeframes and other obligations that are not duplicated in AEMO's WEM Procedures.

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 Procedure	Declaration of Bilateral Trades	WEM Website
WEM Procedure	Facility Dispatch Process	WEM Website
WEM Procedure	Facility Registration, De-Registration and Transfer	WEM Website
WEM Procedure	Indicative Facility Class	WEM Website
WEM Procedure	Individual Reserve Capacity Requirements	WEM Website
WEM Procedure	Minimum Eligibility Requirements for Flexible Certified Reserve Capacity	WEM Website
WEM Procedure	Notices and Communications	WEM Website
WEM Procedure	Outages	WEM Website
WEM Procedure	Reserve Capacity Performance Monitoring	WEM Website

WEM Procedure	Reserve Capacity Security	WEM Website
WEM Procedure	Reserve Capacity Testing	WEM Website
WEM Procedure	Rule Participant Registration Processes	WEM Website

1.5. Communications and provision of information

- 1.5.1. All communications and provision of information between a Market Participant and AEMO under this Procedure must be conducted via email, unless otherwise specified in this Procedure.

2. Modification of timeframes

- 2.1.1. AEMO (in its sole discretion) may modify or extend a date or time in this Procedure as a result of modifying or extending a date or time under clause 4.1.1C or to the extent permitted under the ESM Rules.
- 2.1.2. If AEMO extends a date or time under paragraph 2.1.1, then it will publish on the WEM Website:
- notice of the modified or extended date or time; and
 - the effective date or time of any modification or extension under paragraph 2.1.1.

3. Applications for Certification of Reserve Capacity

3.1. Submission of applications

- 3.1.1. Clauses 4.8, 4.8A, 4.9, 4.10, 4.10A and 4.28C apply with respect to applications for certification of Reserve Capacity.
- 3.1.2. A person to whom clause 4.8.1(b) applies must create the intending Facility name in WEMS, in accordance with the WEM Procedure: Facility Registration, De-Registration and Transfer at least 10 Business Days before:
- the date and time specified in clause 4.1.7, where the person has submitted an Expression of Interest in relation to the new Facility or Facility Upgrade; or
 - the date and time specified in clause 4.8A.4(b), where the person has not submitted an Expression of Interest under clause 4.2.6.
- 3.1.3. The format and content required for the information specified in clause 4.10 is set out in paragraphs 3.1.5 and 3.1.6. Further supporting information requirements are indicated by ‘mandatory’ and ‘optional’ submission fields in the application for Certified Reserve Capacity page in WEMS.
- 3.1.4. The information provided under paragraph 3.1.3 for each Facility or Component, as relevant, must be accurate for the relevant Reserve Capacity Cycle.

- 3.1.5. Subject to paragraph 3.2.1, a Market Participant must apply for certification of Reserve Capacity through WEMS, including any supporting documentation. The application must include documentation required by all mandatory submission fields, and may include documentation described in the optional submission fields, where appropriate. Supporting documentation must cover the entire relevant Capacity Year, and 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, .ppt, or .msg);
 - (c) Adobe PDF;
 - (d) .txt or .csv;
 - (e) common image formats (.jpg, .png, .gif, .bmp); or
 - (f) any other format approved by AEMO.
- 3.1.6. Supporting documentation must (where applicable):
- (a) relate to the Facility or Component, as relevant;
 - (b) be signed by all relevant parties, and where the relevant party is a Market Participant, must be duly executed by an Authorised Officer of that Market Participant;
 - (c) be complete, with the exception that pricing and other commercially-sensitive information may be redacted; and
 - (d) include evidence that any contract conditions precedent have been satisfied or waived.
- 3.1.7. Where a Facility comprises more than one Component, the Market Participant may apply for certification of Reserve Capacity for one, or more than one, of the Facility's Components.
- 3.1.8. For a Facility or Component that is expected to be decommissioned during the relevant Capacity Year, the requirement to provide information under clause 4.10 only applies to the part of the Capacity Year during which the Facility will operate.
- 3.1.9. AEMO (in its sole discretion) may treat a condition precedent as satisfied or waived if:
- (a) the condition precedent is incapable of being satisfied by the date and time specified in clause 4.1.11; or
 - (b) AEMO considers that it would be unreasonable for the parties to waive the condition precedent in the relevant circumstances.
- 3.1.10. A Market Participant wishing to apply for Flexible Certified Reserve Capacity, as well as Peak Certified Reserve Capacity, must select the related checkbox in the WEMS application form and provide the information specified in clause 4.10.1(fE).
- 3.1.11. A Market Participant who applies for certification of Reserve Capacity for an Intermittent Generating System may provide evidence of the temperature dependence of the Intermittent Generating System's capacity, where available, including any restrictions on the Intermittent Generating System's output at certain ambient temperatures.

- 3.1.12. AEMO may use the information provided under paragraph 3.1.11 when considering the Intermittent Generating System's operational characteristics. AEMO must not use the information to reduce the quantity of Certified Reserve Capacity that would otherwise be determined in accordance with the ESM Rules or this Procedure.
- 3.1.13. Where a Market Participant provides information for an Electric Storage Resource under clauses 4.10.1(fA) or 4.10.1(fD), the years included in the time series must be clearly identified, including specifying months and years, to enable AEMO to determine the Linearly Derating Capacity for the relevant Capacity Year.

[A] AEMO's assessment of eligibility for Early Certified Reserve Capacity

When assessing applications for Early Certified Reserve Capacity, AEMO will assess committed status using the criteria in Appendix B of the WEM Procedure: Declaration of Bilateral Trades.

3.2. Specific requirements for Early Certified Reserve Capacity

- 3.2.1. Clause 4.28C and paragraph 3.1 (excluding the requirement to apply through WEMS specified in paragraph 3.1.5) apply with respect to an application for Early Certified Reserve Capacity.

3.3. Specific requirements for Network Augmentation Funding Facilities

- 3.3.1. A Market Participant with a Facility or Facility Upgrade that meets the criteria outlined in clause 4.10A.2 and 4.10A.3 may nominate its Facility or Facility Upgrade to be classified as a Network Augmentation Funding Facility in its application for certification of Reserve Capacity or application for Early Certified Reserve Capacity in accordance with the requirements in paragraph 3.1.
- 3.3.2. The information provided by a Market Participant under clause 4.10A.6 must meet the requirements specified in paragraphs 3.1.5 and 3.1.6, and may include, but is not limited to:
- (a) an interconnection works contract with the Network Operator, including evidence that conditions precedent have been satisfied or waived;
 - (b) evidence of financial commitment, including any relevant third-party arrangements, to the provision of long-lead-time items associated with network augmentation; or
 - (c) an electricity transfer access contract with the Network Operator, including evidence that conditions precedent have been satisfied or waived.
- 3.3.3. AEMO will determine whether a Facility is classified as Network Augmentation Funding Facility upon confirmation of the relevant information from the Network Operator.

3.4. Specific requirements for Market Participants that are Insolvent

- 3.4.1. For the purposes of clause 4.10.1(g)(ii), a Market Participant that is Insolvent must provide additional information in its application for certification of Reserve Capacity or application for Early Certified Reserve Capacity in accordance with the requirements in paragraph 3.13.1.
- 3.4.2. The information provided by a Market Participant under paragraph 3.4.1 must meet the requirements specified in paragraphs 3.1.5 and 3.1.6, and must include evidence to support AEMO in forming a reasonable expectation of the Facility's ability to meet its availability obligations in the relevant Capacity Year.

E[B] Examples of documentation to be provided by an Insolvent Market Participant

For the purposes of paragraph 3.4, the additional information to be provided by an Insolvent Market Participant may include, but is not limited to:

- a Deed of Company Arrangement (DOCA), a legally binding agreement under the Corporations Act between a company in voluntary administration and its creditors, outlining how its affairs will be managed to pay debts, avoid liquidation, and maximize the chances of business survival; and
- supporting information that would support a DOCA or equivalent agreement, such as a sale or operational plan with respect to the Facility.

The additional information requirement is relevant to some of the principles that AEMO must apply in assigning a quantity of Certified Reserve Capacity to a Facility – see, for example, clauses 4.11.1(a) and 4.11.1(c). The actual information and evidence to be provided to AEMO by an Insolvent Market Participant would depend on the specific circumstances relevant to the Market Participant and Facility.

4. Processing applications for Certification of Reserve Capacity

4.1. Acknowledgement of application

- 4.1.1. AEMO may comply with clause 4.9.6 by providing an automatic notification to an applicant through WEMS.

4.2. Preliminary screening

- 4.2.1. AEMO (in its sole discretion) may carry out a preliminary screening review of an application for Certified Reserve Capacity for a Reserve Capacity Cycle that has been submitted at least 10 Business Days before the date and time specified in clause 4.1.11, and may provide feedback to the applicant. The purpose of a preliminary screening review is to consider whether:

- (a) all required information has been provided;
 - (b) the information provided is of sufficient detail; and
 - (c) supporting information has been provided and meets the requirements in paragraphs 3.1.3, 3.1.4, 3.1.5 and 3.1.6.
- 4.2.2. AEMO's preliminary screening review is carried out as a courtesy only. AEMO is not responsible for identifying errors or omissions in a Market Participant's application as part of this review.
- 4.2.3. Where AEMO, as part of its preliminary screening review, requires clarification in relation to the documentation or information provided, or requires additional documentation or information, as relevant, to process the application:
- (a) AEMO must, as soon as practicable, request clarification or additional documentation or information, as relevant; and
- 4.2.4. the applicant must respond to the request (and, if necessary, must provide the additional documentation or information, as relevant, through WEMS) prior to the date and time specified in clause 4.1.11.

4.3. Data accuracy and sufficiency assessment

- 4.3.1. AEMO must not assess an application for Certified Reserve Capacity for a Reserve Capacity Cycle that is received after the date and time specified in clause 4.1.11.
- 4.3.2. AEMO must not accept any:
- (a) amendments or corrections to documentation or information; or
 - (b) additional documentation or information,
- submitted through WEMS by the Market Participant in support of an in-time application, after the date and time specified in clause 4.1.11.
- 4.3.3. If, after the date and time specified in clause 4.1.11, AEMO determines that an in-time application submitted through WEMS by a Market Participant does not contain all the information required under clause 4.10, AEMO must not:
- (a) request additional documentation or information from the Market Participant; or
 - (b) accept additional documentation or information from the Market Participant,
- to complete the application.
- 4.3.4. AEMO must determine that an application is invalid if, at the date and time specified in clause 4.1.11, the documentation or information submitted through WEMS by a Market Participant does not contain all the information required under clause 4.10. AEMO must notify a Market Participant if its application has been rejected and the reason for the rejection.

- 4.3.5. If, after the date and time specified in clause 4.1.11, AEMO determines that an in-time application submitted through WEMS by a Market Participant contains all the information required under clause 4.10, but requires minor clarifications, AEMO may request the Market Participant provide the clarifying information.
- 4.3.6. The Market Participant must provide any minor clarifying information requested under paragraph 4.3.5 by the date and time specified in clause 4.1.12.

E[C] Examples of minor clarifications

For the purposes of paragraph 4.3.6, minor clarifications requested by AEMO to documentation or information may relate to:

- data labels in data sets;
- alignment of dates contained within a submission;
- the identification of information sources; or
- any other information to be contained within the application, as required by clause 4.10.

- 4.3.7. AEMO must not assign Certified Reserve Capacity to the Component or Components where AEMO has determined that one or more of the Components of a Facility does not meet the requirements of paragraph 3.1 and will continue to assess any remaining Component or Components in accordance with this Procedure.
- 4.3.8. Where a Market Participant has applied for Flexible Certified Reserve Capacity, and AEMO has determined that the Facility, or one or more Components of the Facility does not meet the requirements of paragraph 3.1 in respect of its application for Flexible Certified Reserve Capacity, then AEMO must not assign Flexible Certified Reserve Capacity to the Facility or each relevant Component that does not meet the requirements.
- 4.3.9. Further to paragraph 4.3.8, AEMO will continue to assess the Facility or each relevant Component of the Facility for Peak Certified Reserve Capacity in accordance with this Procedure.

4.4. Assessment of application where Facility has previously been assigned Conditional Peak Certified Reserve Capacity

- 4.4.1. Clause 4.9.5 applies with respect to an application for Peak Certified Reserve Capacity that relates to Conditional Peak Certified Reserve Capacity.

4.5. Outage assessment

- 4.5.1. For the purposes of clause 4.11.1A, the Forced Outage rate for a Facility is calculated as follows:

$$\frac{\sum_{t=0}^{PI} \frac{FO(f, t)}{CC(f, t)} + \sum_{t=0}^{PI} \frac{CAFO(f, t)}{CC(f, t)} + \sum_{t=0}^{PI} \frac{ESRCLS(f, t)}{CC(f, t)}}{PI} \times 100$$

where:

Variable	Units	Definition
CAFO(f,t)	MW	The Capacity Adjusted Forced Outage quantity calculated in accordance with clause 3.21.7B in Trading Interval t, where Trading Interval t is within the relevant 36-month period and falls after 08:00 am on 1 October 2023.
CC(f,t)	MW	The quantity of Capacity Credits held by Facility f in Trading Interval t.
ESRCLS(f,t)	MW	The quantity of any Charge Level shortfall for Trading Interval t calculated for Facility f in accordance with clause 4.26.1E, where Trading Interval t is within the relevant 36-month period and falls after 08:00 am on 1 October 2023.
FO(f,t)	MW	The quantity of capacity that was subject to a Forced Outage for Trading Interval t, where Trading Interval t is within the relevant 36-month period and falls before 08:00 am on 1 October 2023 (as determined before New WEM Commencement Day).
PI	intervals	The total number of Trading Intervals during which the Facility was in Commercial Operation for the previous 36-month period.

4.5.2. For the purposes of clause 4.11.1A, the Forced Outage rate for a Separately Certified Component is calculated as follows:

$$\frac{\sum_{t=0}^{PI} \frac{FO(t)}{CC(c,t)} + \sum_{t=0}^{PI} \frac{CAFO(c,t)}{CC(c,t)} + \sum_{t=0}^{PI} \frac{ESRCLS(c,t)}{CC(c,t)}}{PI} \times 100$$

where:

Variable	Units	Definition
CAFO(c,t)	MW	The Capacity Adjusted Forced Outage quantity calculated in accordance with clause 3.21.7A for Trading Interval t, where Trading Interval t is within the relevant 36-month period and falls after 08:00 am on 1 October 2023.
CC(c,t)	MW	The quantity of Capacity Credits held by Separately Certified Component c in Trading Interval t.
ESRCLS(c,t)	MW	The quantity of any Charge Level shortfall for Trading Interval t calculated in accordance with clause 4.26.1F, where Trading Interval t is within the relevant 36-month period and falls after 08:00 am on 1 October 2023.
FO(f,t)	MW	<ul style="list-style-type: none"> For a Separately Certified Component that was the sole Separately Certified Component of Facility f before 1 October 2023, the quantity of capacity that was subject to a Forced Outage for Trading Interval t, where Trading Interval t is within the relevant 36-month period and falls before 08:00 am on 1 October 2023 (as determined before New WEM Commencement Day). For a Separately Certified Component that was not the sole Separately Certified Component of a Facility f before 1 October 2023, zero.
PI	intervals	The total number of Trading Intervals during which the Separately Certified Component was in Commercial Operation for the previous 36-month period.

4.5.3. Where clause 4.11.1A applies to a Facility or a Separately Certified Component, AEMO may request information from the applicant in relation to whether the Facility has re-entered service after Significant Maintenance or an upgrade within the previous 12 months, specifying a due date for the provision of this information.

4.5.4. If AEMO requests information under paragraph 4.4.3, the Market Participant must provide the information within the timeframe specified by AEMO.

4.5.5. If a Facility or Separately Certified Component, where relevant, did not hold Capacity Credits for the entire relevant 36-month period, AEMO will exclude the Trading Intervals where the Facility or Separately Certified Component did not hold Capacity Credits from the calculation under paragraph 4.5.1 or 4.5.2.

4.5.6. From the 2026 Reserve Capacity Cycle, for the purposes of clause 4.5.9(c)(ii), the Forced Outage rate for a Facility is calculated in accordance with paragraph 4.5.1 and 4.5.2.

4.6. Facilities sharing a Declared Sent Out Capacity

4.6.1. If AEMO receives applications for Certified Reserve Capacity for a Reserve Capacity Cycle for two or more Facilities, containing an Energy Producing System, that share a Declared Sent Out Capacity in an Arrangement for Access or Access Proposal, it must:

- (a) request that each relevant applicant provides AEMO with details of how the Declared Sent Out Capacity 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 Declared Sent Out Capacity quantity in accordance with clause 4.11.1(bB).

4.6.2. If an applicant receives a request under paragraph 4.6.1(a), it must use its best endeavours to ensure that the Declared Sent Out Capacity Owner provides a written response to AEMO within five Business Days. The response must:

- (a) be signed:
 - (i) by an Authorised Officer of the Market Participant (or otherwise in a manner reasonably acceptable to AEMO); and
 - (ii) (if the Declared Sent Out Capacity Owner is a company as defined in *the Corporations Act 2001 (Cwlth)*) in accordance with section 127 of the *Corporations Act 2001 (Cwlth)*; and
- (b) identify, for each Facility proposed to share the Declared Sent Out Capacity, the level of network access that will be available for use by that Facility in the relevant Capacity Year.

4.6.3. If AEMO receives a response from the Declared Sent Out Capacity Owner that meets the requirements in paragraph 4.6.2, then AEMO must:

- (a) within one Business Day, acknowledge receipt of the response; and
- (b) for each affected Facility:
 - (i) within one Business Day, notify the Market Participant of the share of the Declared Sent Out Capacity assigned to the Facility by the Declared Sent Out Capacity Owner; and
 - (ii) for the purposes of paragraphs 5.8.1 and 6.3.1, replace the level of network access provided in the application for Certified Reserve Capacity with the level specified for the Facility by the Declared Sent Out Capacity Owner in its response.

4.6.4. If AEMO does not receive a response from the Declared Sent Out Capacity Owner within 10 Business Days after the request under paragraph 4.6.1(a) that meets the requirements in paragraph 4.6.2, then AEMO must reject all the applications to which AEMO's request under paragraph 4.6.1 relates, on the basis that the applications do not meet the requirements under clause 4.10.1(bA).

4.7. Component specific assessment for Peak Certified Reserve Capacity

4.7.1. In addition to the requirements above, AEMO must further assess applications for Peak Certified Reserve Capacity in accordance with the paragraph of this Procedure identified in Table 3.

Table 3 Certification methods for Peak Certified Reserve Capacity for different combinations of Facility Class, Indicative Facility Class and Component

Facility Class or Indicative Facility Class	Component	Peak Certification method	Paragraph reference
Scheduled Facility Semi-Scheduled Facility	Non-Intermittent Generating System	Capability at 41°C	Paragraph 5
Scheduled Facility Semi-Scheduled Facility	Intermittent Generating System	Relevant Level Method	Paragraph 6
Scheduled Facility Semi-Scheduled Facility	Electric Storage Resource	Linearly Derating Capacity	Paragraph 7
Non-Scheduled Facility		Relevant Level Method	Paragraph 6
Non-Scheduled Facility comprising only an Electric Storage Resource		Linearly Derating Capacity – if not in operation for the full period under step 1(a) of Appendix 9	Paragraph 7
Demand Side Programme with a single Associated Load		Individual Reserve Capacity Requirement of the Associated Load	Paragraph 8
Demand Side Programme with multiple Associated Loads		Nominated under clause 4.10.1(f)(iA)	Paragraph 8

E[D] AEMO's assessment of Peak Certified Reserve Capacity

When assessing applications for Peak Certified Reserve Capacity, AEMO will apply the principles of clause 4.11.1 as a whole, and paragraphs 5, 6, 7 and 8 are not intended to limit AEMO's assessment.

4.8. Component specific assessment for Flexible Certified Reserve Capacity

4.8.1. In addition to the requirements above, AEMO must further assess applications for Flexible Certified Reserve Capacity in accordance with paragraph 9 of this Procedure.

E[E] AEMO's assessment of Flexible Certified Reserve Capacity

When assessing applications for Flexible Certified Reserve Capacity, AEMO will apply the principles of clause 4.11.1 as a whole, and paragraph 9 is not intended to limit AEMO's assessment.

4.9. Notifications regarding Certified Reserve Capacity

- 4.9.1. Clauses 4.9.8 and 4.9.9 apply with respect to notifications regarding the quantity of Certified Reserve Capacity or Conditional Peak Certified Reserve Capacity, as applicable, assigned to each Facility. The notification to applicants may be provided through WEMS or by another means determined by AEMO.
- 4.9.2. If AEMO assigns Certified Reserve Capacity to a Facility, the notification provided in paragraph 4.9.1 must include the information specified in clause 4.9.9. The notification to applicants may be provided through WEMS or by another means determined by AEMO.
- 4.9.3. If a Facility or Facility Upgrade meets the requirements of clause 4.10A.5, the notification in paragraph 4.9.1 must specify that the Facility or Facility Upgrade will be classified as a Network Augmentation Funding Facility.
- 4.9.4. If a Market Participant requests the calculations upon which AEMO's determination of the quantity of Certified Reserve Capacity is based under clause 4.9.9(e), AEMO will endeavour to provide the Market Participant with the calculations within 10 Business Days of receiving the request.

5. Peak Certified Reserve Capacity Assessment using the capability at 41°C methodology

5.1. Eligibility to be assessed based on capability at 41°C

- 5.1.1. AEMO must assess the following Components or Facility Upgrades for Peak Certified Reserve Capacity in accordance with this paragraph 5:
 - (a) Non-Intermittent Generating Systems that are Components of a Scheduled Facility; and
 - (b) Non-Intermittent Generating Systems that are Components of a Semi-Scheduled Facility.

5.2. Plant capability assessment

- 5.2.1. AEMO must determine its reasonable expectation of the amount of capacity likely to be available for each Component or Facility Upgrade specified in paragraph 5.1.1 as described in clause 4.11.1(a).
- 5.2.2. AEMO must determine its reasonable expectation of the maximum capacity in MW that is likely to be available for an Electric Storage Resource described in clause 4.11.3 to be (whichever is lower):
 - (a) the nameplate capacity for Electric Storage Resource; or
 - (b) the maximum charge level of Electric Storage Resource in MWh minus the minimum charge level in MWh divided by the Peak Electric Storage Resource Obligation Duration.
- 5.2.3. In accordance with clause 4.11.1(b), for a Component or Facility Upgrade specified in paragraph 5.1.1, the amount of capacity likely to be available, as determined in paragraph 5.2.1, must not exceed the capacity specified by the Market Participant under clause 4.10.1(e)(ii).

- 5.2.4. For a Component or Facility Upgrade specified in paragraph 5.1.1 that is yet to enter service or that has provided new or updated temperature dependence information under clause 4.10.1(e)(i), the amount of capacity determined under paragraph 5.2.1 must not exceed the output of the Component or Facility Upgrade at 41°C, as shown in the temperature dependence information and supporting documentation from the original equipment manufacturer or an independent engineer's report provided under clause 4.10.1(e)(i).
- 5.2.5. For all other Components specified in paragraph 5.1.1 that are not covered under paragraph 5.2.4, the amount of capacity determined under paragraph 5.2.1 must not exceed the maximum historical sent out generation of the Component in the previous 12 months, as observed from Meter Data Submissions or Facility Sub-Metering data obtained through Reserve Capacity Testing under section 4.25, where relevant, and adjusted to a temperature of 41°C using the temperature dependence information provided under clause 4.10.1(e)(i).
- 5.2.6. A Market Participant may provide additional Facility Sub-Metering data as part of an application for certification of Reserve Capacity. AEMO must use this data, if provided, instead of the data obtained through Reserve Capacity Testing for the purposes of paragraph 5.2.5.
- 5.2.7. A Market Participant must provide temperature dependence information for each fuel type specified under clause 4.10.1(e)(v)(1)(ii). AEMO must use this information to determine the amount of capacity specified in paragraph 5.2.4 or 5.2.5, as applicable, for each fuel type.
- 5.2.8. If AEMO, in its sole discretion, considers that the amount of capacity determined under either paragraph 5.2.4 or paragraph 5.2.5 is not an accurate reflection of a Component's capability, then it may determine an alternative quantity under paragraph 5.2.1 that AEMO considers accurately reflects the Component's capability, having regard to all relevant information available to AEMO.

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

- 5.3.1. AEMO must determine whether it reasonably expects that a Component or Facility Upgrade specified in paragraph 5.1.1 is likely to be available at the level of capacity determined in paragraph 5.2.1 for the Capability Class 1 Availability Assessment Intervals on each Business Day.
- 5.3.2. For the purposes of clause 4.10.1(e)(v)(3)(i) and 4.10.1(fA)(vi)(1), a Market Participant must indicate in writing as part of an application for certification of Reserve Capacity whether it wants AEMO to assess that application in respect of a Facility Technology Type within a Market Participant's Facility as being fully fuelled or charged fully, as relevant, by Eligible Renewable Energy Sources in accordance with clause 4.9.9(b).
- 5.3.3. Where a Component or Facility Upgrade is capable of operating on primary and alternative fuels and the Market Participant has nominated only one fuel under clause 4.10.1(e)(v)(1)(ii), AEMO's assessment under paragraph 5.3.1 is limited to that fuel.
- 5.3.4. When making a determination under paragraph 5.3.1, AEMO may consider:
 - (a) the expected operational characteristics of the Component or Facility Upgrade;

- (b) information provided in relation to, or outcomes of, the plant capability assessment conducted in paragraph 5.2;
 - (c) the likelihood of any limitations on the availability of the Component or Facility Upgrade, and the potential effect of those limitations on Power System Security and Power System Reliability;
 - (d) any operating restrictions on the Component or Facility Upgrade, including, but not limited to, leasing arrangements, operating licences, or planning approvals;
 - (e) any water requirements for the Component or Facility Upgrade; and
 - (f) any other information of which AEMO is aware and considers relevant to the determination.
- 5.3.5 For the purposes of clause 4.10.1(e)(v)(2), and to facilitate AEMO's assessment under paragraph 5.3.1, a Market Participant must provide the following details and supporting evidence:
- (a) in relation to each primary or alternative fuel supply or transportation contract that the Market Participant relies on for the purposes of its application under clause 4.11.1(a):
 - (i) the nature of the contract (Firm or Non-Firm);
 - (ii) the contractual entitlement quantity;
 - (iii) the actual fuel quantity delivered for each month in the previous 36 months, with reasons for instances where the actual fuel quantity delivered was materially below the contractual entitlement quantity; and
 - (iv) any other information the Market Participant considers relevant; and
 - (b) in relation to fuel supply:
 - (i) the quantity of usable fuel kept in reserve (e.g. stored or stockpiled), if any, for each month in the previous 36 months;
 - (ii) the specification of contracted fuel and any fuel kept in reserve;
 - (iii) any known or reasonably foreseeable issues that may materially restrict fuel availability, supply or delivery;
 - (iv) for each issue identified for paragraph 5.3.5(b)(iii), a description (with supporting evidence) of any controls and risk mitigation activities implemented by the Market Participant; and
 - (iv) any other information the Market Participant considers relevant.
- 5.3.6 For the purposes of paragraph 5.3.5(b)(iv), as an example of risk mitigation, a Market Participant may structure its application to include a primary fuel supply arrangement and at least one back-up fuel supply arrangement which, if triggered, would enable the Non-Intermittent Generation System to operate at its full capacity during Capability Class 1 Availability Assessment Intervals on Business Days.
- 5.3.7 When making the determination in paragraph 5.3.1, AEMO must assess the information provided by the Market Participant under clause 4.10.1(g) and paragraph 5.3.5.
- 5.3.8 For the purposes of making a determination under paragraph 5.3.1, AEMO may give weight to other information that AEMO has access to, including information in the public domain.

- 5.3.9 For the purposes of making an assessment under paragraph 5.3.1, where:
- (a) a fuel supply or fuel transportation arrangement, including gas pipeline capacity, includes a Non-Firm arrangement;
 - (b) the actual fuel quantity delivered under the fuel supply or fuel transportation arrangement has been less than the contractual entitlement quantity to an extent that AEMO considers consistent, sustained, ongoing, or reasonably likely to reoccur during the relevant Capacity Year;
 - (c) other public information available to AEMO indicates a consistent, sustained, and ongoing restriction to fuel supply or transport is likely to occur in the Capacity Year; or
 - (d) other information available to AEMO indicates a likely sustained fuel restriction,
- AEMO may determine that there is a restriction on fuel availability that could prevent the Component or Facility Upgrade from operating at its full capacity for the Capability Class 1 Availability Assessment Intervals.
- 5.3.10 If AEMO proposes to determine that there is a restriction on fuel availability under paragraph 5.3.9, and that proposed determination is based on other information under paragraph 5.3.9(c) or paragraph 5.3.9(d), AEMO must:
- (a) notify the relevant Market Participant of its proposed determination and specify a date and time (which must be reasonable) by which a Market Participant must provide a written response regarding the proposed determination; and
 - (b) consider any response provided by the Market Participant under paragraph 5.3.11.
- 5.3.11 A Market Participant must provide a written response regarding a proposed determination by the date and time specified in a notice under paragraph 5.3.10(a).
- 5.3.12 AEMO must not extend the response timeframe or consider a response that is received after the date and time specified in a notice under paragraph 5.3.10(a).
- 5.3.13 If AEMO reasonably expects that a Component or Facility Upgrade specified in paragraph 5.1.1 is not likely to be available at the level of capacity determined in paragraph 5.2.1 for the Capability Class 1 Availability Assessment Intervals, AEMO will determine the number of complete Trading Intervals during which it reasonably expects the Component or Facility Upgrade could continuously deliver the level of capacity determined in paragraph 5.2.1.
- 5.3.14 A Market Participant must provide details of the quantity of fuel per MWh required to operate each Component and, if relevant, the Facility Upgrade specified in paragraph 5.1.1.
- 5.3.15 Where, in accordance with clause 4.10.1(e)(v)(1)(ii), a Market Participant specifies more than one fuel type to be used for a Component or Facility Upgrade specified in paragraph 5.1.1, AEMO must assess the information provided under clauses 4.10.1(e)(v) and 4.10.1(g) and paragraph 5.3.6 for each fuel type in accordance with paragraphs 5.3.7, 5.3.8 and 5.3.9.
- 5.3.16 Where, in accordance with clause 4.10.1(e)(v)(1)(ii), a Market Participant specifies more than one fuel type to be used for a Component or Facility Upgrade specified in paragraph 5.1.1, the level of capacity in paragraph 5.3.1 is equal to the lowest capability calculated in accordance with paragraph 5.3.1 or clause 4.11.2C, using the information provided for each fuel type under paragraph 5.3.15.

E[F] AEMO assessment for dual fuel certification

An example of how paragraph 5.3.14 would apply includes the situation where a Facility is assessed as being capable of providing 90MW under one fuel and assessed as being capable of providing 100MW under another fuel. If the Facility is certified as a dual fuel Facility then AEMO will assess the Facility as being capable of providing 90MW of capacity.

- 5.3.17 Paragraphs 5.3.15 and 5.3.16 do not apply to a Component or Facility Upgrade that is capable of operating on primary and alternative fuels where the Market Participant has nominated only one fuel under clause 4.10.1(e)(v)(1)(ii).

E[G] AEMO assessment of whether a charge source or fuel source is an Eligible Renewable Energy Source

To be eligible for the ten-year price guarantee, the Electric Storage Resource or Non-Intermittent Generating System must be entirely charged or fuelled by an Acceptable Eligible Renewable Energy Source(s) in the relevant Capacity Year.

For an Electric Storage Resource or Non-Intermittent Generating System to be assessed as having an Eligible Renewable Energy Source, the Facility must demonstrate that its energy needs can be met entirely via an arrangement or contract for renewable energy fuel that is an Eligible Renewable Energy Source as defined in the *Renewable Energy (Electricity) Act 2000 (Cwlth)* (the Act). This includes:

- hydro
- wave
- tide
- ocean
- wind
- solar

Other energy sources may also be considered acceptable, subject to compliance with the Act.

AEMO must assess whether the Facility meets this requirement for the relevant capacity year under clause 4.10.1(fA)(vi)(1) for Electric Storage Resource and under clause 4.10.1(e)(v)(3)(i) for a Non-Intermittent Generating System. There are several ways in which a Facility may demonstrate it has an acceptable Eligible Renewable Energy Source.

For an Electric Storage Resource, the Facility has a self-supply arrangement or supply contract with:

- A charge source that is a solar farm, wind farm, hydro power plant or another technology that generates electricity from a non-fossil fuel source. A charge/fuel source located in the SWIS that has received accreditation from the Clean Energy Regulator as an 'accredited large-scale renewable energy power station'.

For an Electric Storage Resource whose Market Participant also owns, control or operates an Intermittent Generating System, the Market Participant must provide evidence of any supply contract to sell renewable energy that will not be available for storage in the Electric Storage Resource.

For a Non-Intermittent Generating System, the Facility has an arrangement or supply contract with:

- A fuel supplier for renewable fuel that complies with the Act.
- Another Facility that meets the description in the dot point above, to purchase, or to agree to purchase, the Renewable Energy Certificates of that other Facility.

Where a Facility's charge or fuel source is an 'accredited large-scale renewable energy power station', the Market Participant for that Facility must provide documented evidence of the power station's certification from the Clean Energy Regulator, or other evidence of a similar nature that indicates the charge or fuel source meets the requirements of clause 4.10.1(fA)(vi)(1) and clause 4.10.1(e)(v)(3)(i).

- A Facility that was a Fixed Price Component in the previous Capacity Year will be required to provide historical data as evidence to support that all of its energy needs were met by Eligible Renewable Energy Sources (clause 4.10.1(fA)(vi)(2) and clause 4.10.1(e)(v)(3)(ii). This includes, as relevant: where the Market Participant for an ESR is seeking to self-supply, the historical output of the Intermittent Generating System it also owns, controls or operates; or
- the Facility's ability to meet Capability Class 1 availability levels.

Clause 4.9.9(b) of the ESM Rules requires AEMO to advise the Market Participant for a Non-Intermittent Generating System or an Electric Storage Resource whether they have provided sufficient evidence (as part of an application for certification of Reserve Capacity) that the Facility is fuelled by Eligible Renewable Energy Sources.

5.4. Evidence to inform AEMO's assessment of an energy source as an Eligible Renewable Energy Source

- 5.4.1. For the purposes of clause 4.10.1(fA)(vi)(1), clause 4.10.1(fA)(vi)(2), clause 4.10.1(e)(v)(3)(i) or clause 4.10.1(e)(v)(3)(ii), in assessing whether an energy source in respect of a Facility Technology Type within a Market Participant's Facility is an Eligible Renewable Energy Source, AEMO may have regard to:
- (a) the types of evidence specified in clause 4.9.10(c)(iii); or
 - (b) similar documentation or information, as relevant, in respect of the Facility that AEMO considers to be relevant.

5.5. Assessment of fully fuelling by Eligible Renewable Energy Sources

- 5.5.1. For the purposes of clause 4.10.1(e)(v)(3)(i), a Market Participant may, for the relevant Capacity Year:
- (a) provide AEMO with evidence to demonstrate that a Non-Intermittent Generating System is fuelled by one or more Eligible Renewable Energy Sources; and
 - (b) make a request to AEMO in accordance with paragraph 5.3.2 to determine whether the Non-Intermittent Generating System will be fully fuelled by Eligible Renewable Energy Sources.

- 5.5.2. For the purposes of paragraphs 5.5.1, the evidence that the Market Participant may provide to AEMO for the relevant Capacity Year includes:
- (a) one or more Firm fuel supply contracts that the Market Participant entered into with a fuel supplier for an Eligible Renewable Energy Source; or
 - (b) Renewable Energy Certificates created by an accredited large-scale renewable energy power station located in the SWIS and registered with the Clean Energy Regulator which:
 - (i) are valid for the relevant Capacity Year; and
 - (ii) the unique identifier for the large-scale renewable energy power station;
- and
- (c) a plan to mitigate the risk of a shortfall in renewable fuel, including to obtain additional renewable fuel, where the actions undertaken under paragraph 5.4.3(a) and (b) are insufficient to ensure the Non-Intermittent Generating System will be fully supplied by Eligible Renewable Energy Sources.
- 5.5.3. AEMO may determine that a Non-Intermittent Generating System will be fully fuelled by Eligible Renewable Energy Sources for the relevant Capacity Year where the evidence provided by a Market Participant in accordance with paragraph 5.5.1 has demonstrated that sufficient Eligible Renewable Energy Sources will be available to the Non-Intermittent Generating System, based on the information received by AEMO:
- (a) under clause 4.10.1(e); and
 - (b) in accordance with paragraph 5.5.2.
- 5.5.4. In accordance with clause 4.10.1(e)(v)(3)(ii), a Market Participant may provide AEMO with evidence to demonstrate that a Non-Intermittent Generating System was supplied by one or more Eligible Renewable Energy Sources for AEMO to determine whether the Non-Intermittent Generating System was fully fuelled by Eligible Renewable Energy Sources in the previous Capacity Year.
- 5.5.5. For the purposes of paragraph 5.5.4, the evidence that the Market Participant may provide to AEMO for the previous Capacity Year includes:
- (a) one or more Firm fuel supply contracts that the Market Participant entered into with a fuel supplier for Eligible Renewable Energy Sources; or
 - (b) Renewable Energy Certificates created by an accredited large-scale renewable energy power station located in the SWIS and registered with the Clean Energy Regulator which:
 - (i) were surrendered to the Market Participant during the previous Capacity Year; and
 - (ii) the unique identifier of the large-scale renewable energy power station; and
 - (c) historical dispatch levels.

- 5.5.6. AEMO may determine that the Non-Intermittent Generating System was fully fuelled by Eligible Renewable Energy Sources for the previous Capacity Year where the evidence provided by a Market Participant in accordance with paragraph 5.5.4 has demonstrated that sufficient Eligible Renewable Energy Sources were available to the Non-Intermittent Generating System, based on the information received by AEMO:
- (a) under clause 4.10.1(e); and
 - (b) in accordance with paragraph 5.5.5.

E[H] Evidence to support significant maintenance

Significant maintenance are works deemed significant by AEMO which, in its sole discretion, have triggered Forced Outage rates in excess of the Forced Outage Threshold. Examples of significant maintenance include, major refurbishments of a Facility, and circumstances where major repairs or reconstruction of a Facility are required. Events triggering significant maintenance are likely to be of a nature that cannot be planned or avoided, and which impact the ability of the Facility to meet Reserve Capacity Obligations.

Examples of significant maintenance include, but are not limited to:

- refurbishments of a Facility, and circumstances where major repairs or reconstruction of a Facility are required;
- the modification or replacement of major equipment, including control systems (even if the equipment is replaced with identical ('like-for-like') components);
- software changes that alter the performance of a Generating System (including changing of control system logic that will affect the response of the Facility); or
- modifications that are considered to be a Potential Relevant Generator Modification or Relevant Generator Modification in accordance with clauses 3A.13 and 3A.14.

Evidence of significant maintenance comprises documentation with details of the scope, duration and importance of the maintenance activities that were performed in the previous 36 months. Both the root cause of the Forced Outage and any opportunistic maintenance should be clearly identified in the supporting documentation.

5.6. Assessment of significant maintenance

- 5.6.1 Where a Facility has a Forced Outage rate above the Forced Outage Threshold, and the Market Participant requests that AEMO consider the Outage as significant maintenance in accordance with clause 4.11.1A of the ESM Rules, the Market Participant must provide written evidence to support this assessment.
- 5.6.2 Each Outage must align with an Outage reported in AEMO's Outage System.

5.7. Environmental approval assessment

- 5.7.1. Where a Component or Facility Upgrade specified in paragraph 5.1.1 is yet to enter service, AEMO must assess the information provided under clause 4.10.1(c)(ii) as evidence that Environmental Approvals have been granted, or as evidence that the necessary Environmental Approvals are expected to be granted in time to meet the Component or Facility Upgrade's Reserve Capacity Obligations.
- 5.7.2. If AEMO reasonably expects that the Environmental Approvals that have been granted, or are being sought, are insufficient to satisfy the requirement of clause 4.11.2C, AEMO may determine that the Component or Facility Upgrade is likely to be available for Capability Class 1 Availability Assessment Intervals at a lower level of capacity than it may have otherwise determined under paragraph 5.2.1.

5.8. Assignment of Peak Certified Reserve Capacity

- 5.8.1. Based on the outcome of assessments in paragraphs 5.2 to 5.3 and paragraphs 5.5 and 5.6, but subject to any other relevant principles in clause 4.11.1, AEMO must assign a quantity of Peak Certified Reserve Capacity to a Component or Facility Upgrade specified in paragraph 5.1.1 equal to the minimum of:
- the capacity determined under paragraph 5.2.1;
 - the Declared Sent Out Capacity;
 - a lower level of capacity as determined under clause 4.11.2C, where AEMO has determined under paragraph 5.3.1 that the Component or Facility Upgrade is not likely to be available for the Capability Class 1 Availability Assessment Intervals;
 - a lower quantity of capacity determined under clause 4.11.1A, if applicable; and
 - a lower level of capacity as determined under paragraph 5.7.2, if applicable.

6. Peak Certified Reserve Capacity Assessment using the Relevant Level Method

6.1. Eligibility to be assessed using the Relevant Level Method

- 6.1.1. In accordance with clause 4.10.2, AEMO must assess the following Facilities, Components and Facility Upgrades for Peak Certified Reserve Capacity in accordance with this paragraph 6:
- Components of Semi-Scheduled Facilities that are Intermittent Generating Systems;
 - Components of Scheduled Facilities that are Intermittent Generating Systems;
 - Non-Scheduled Facilities, except Non-Scheduled Facilities comprising only Electric Storage Resources that have not been in operation for the full period of performance assessment identified in Appendix 9 step 1(a) of the ESM Rules; and
 - Non-Scheduled Facilities comprising only Electric Storage Resources that have been in operation for the full period of performance assessment identified in Appendix 9 step 1(a) of the ESM Rules.

6.2. Assessment of independent expert report

- 6.2.1. AEMO must assess the accuracy of an independent expert report provided under clause 4.10.3. This assessment may consider the following factors:
- (a) the configuration of the Facility, Component, or Facility Upgrade, as relevant, that was used to develop the report;
 - (b) the level of network access available, or expected to be available, to the Facility;
 - (c) where the Facility contains multiple Components, the level of network access allocated to each of the Components for which the Market Participant has applied for certification of Reserve Capacity;
 - (d) the Sent Out Metered Schedule or Facility Sub-Metering data, as relevant, for similar Facilities or Components, if applicable;
 - (e) if the application relates to a Facility Upgrade, the observed sent out generation of the Facility or Component excluding the Facility Upgrade;
 - (f) any restrictions on the availability of the Facility, Component or Facility Upgrade, as applicable, as specified by the applicant under clause 4.10.1(g); and
 - (g) any other factors that AEMO considers relevant.
- 6.2.2. Following the assessment in paragraph 6.2.1, if AEMO reasonably considers the independent expert report provided under clause 4.10.3 to be inaccurate, it may, in accordance with Appendix 9 Step 10 of the ESM Rules, calculate alternative estimates of the expected energy that would have been sent out by the Facility, Component, or Facility Upgrade, as relevant, if it had been in operation with the configuration proposed under clause 4.10.1(dA). AEMO may use such estimates in its assessment of the application for Certified Reserve Capacity.

6.3. Assignment of Peak Certified Reserve Capacity

- 6.3.1. Subject to any other relevant principles in clause 4.11.1, AEMO must assign a quantity of Peak Certified Reserve Capacity to a Facility, Component, or Facility Upgrade specified in paragraph 6.1.1 equal to the minimum of:
- (a) the Relevant Level, determined in accordance with the Relevant Level Method; and
 - (b) the Declared Sent Out Capacity.

7. Peak Certified Reserve Capacity Assessment using the Linearly Derating Capacity methodology

7.1. Eligibility to be assessed using the Linearly Derating Capacity methodology

- 7.1.1. In accordance with clauses 4.11.1(bC) and 4.11.1(bD)(ii) AEMO must assess the following Facilities, Components and Facility Upgrades for Peak Certified Reserve Capacity in accordance with this paragraph 7:
- (a) Components of Scheduled Facilities that are an Electric Storage Resource;
 - (b) Components of Semi-Scheduled Facilities that are an Electric Storage Resource; and
 - (c) Non-Scheduled Facilities comprising only Electric Storage Resources that have not been in operation for the full period of performance assessment identified in Appendix 9 step 1(a) of the ESM Rules.

7.2. Linearly Derating Capacity assessment

- 7.2.1. AEMO must determine the Linearly Derating Capacity for each Component, Facility or Facility Upgrade specified in paragraph 7.1.1 in accordance with clause 4.11.3.
- 7.2.2. In making its determination under paragraph 7.2.1, AEMO must assess and verify the sent-out capacity provided by the Market Participant under clause 4.10.1(fA)(iii) or 4.10.1(fD)(iii), as relevant, for the Capacity Year that commences on 1 October of Year 3 of the relevant Reserve Capacity Cycle.

E[I] Assessment of Linearly Derating Capacity

As per paragraph 5.2.2 of this procedure, AEMO will form a reasonable expectation of the sent-out capacity available to discharge over the Peak Electric Storage Resource Obligation Intervals by netting the difference between the maximum and minimum charge levels to reflect available capacity.

- 7.2.3. In completing its assessment under paragraph 7.2.2, AEMO may consider:
- (a) the forecast degradation rate, as specified in the manufacturer's data or in an independent engineer's report, of the Component, Facility, or Facility Upgrade as at the end of the relevant Capacity Year;
 - (b) Sent Out Metered Schedule or Facility Sub-Metering data from the previous 12 months; and
 - (c) any other information provided by the Market Participant in its application for certification of Reserve Capacity.

- 7.2.4. AEMO must set the Linearly Derating Capacity as a quantity equal to the sent out capacity provided by the Market Participant under clause 4.10.1(fA)(iii) or 4.10.1(fD)(iii), as relevant, for the Capacity Year commencing on 1 October of Year 3 of the relevant Reserve Capacity Cycle, unless AEMO is unable to verify the sent out capacity as part of the assessment in paragraph 7.2.3.
- 7.2.5. Where AEMO is unable to verify the sent out capacity as part of its assessment under paragraph 7.2.3, it must set the Linearly Derating Capacity as a quantity equal to the quantity that AEMO considers to be reflective of the Electric Storage Resource's capability over the Peak Electric Storage Resource Obligation Duration for the Capacity Year commencing on 1 October of Year 3 of the relevant Reserve Capacity Cycle in accordance with paragraph 5.2.2.
- 7.2.6. In determining the quantity specified in paragraph 7.2.5, and in addition to the factors considered in AEMO's assessment under paragraph 7.2.3, AEMO may consider:
- (a) information provided by the Market Participant in its application for certification of Reserve Capacity that indicates that any factors that affected the Electric Storage Resource's previous performance have been resolved or will be resolved prior to the start of the relevant Capacity Year; and
 - (b) any other information that AEMO, in its sole discretion, considers to be relevant.

E[J] Information that may be supplied as part of an application for certification of Reserve Capacity

A Market Participant's application for certification of Reserve Capacity may be supported by risk mitigation strategies demonstrating that the Market Participant can manage the risk of a lack of fuel that is an acceptable Eligible Renewable Energy Source as the result of unforeseen circumstances, such as weather patterns.

7.3. Assessment of charging fully by Eligible Renewable Energy Sources

- 7.3.1. For the purposes of clause 4.10.1(fA)(vi)(1), a Market Participant may, for the relevant Capacity Year:
- (a) provide AEMO with evidence to demonstrate that an Electric Storage Resource is supplied by one or more Eligible Renewable Energy Sources; and
 - (b) make a request to AEMO in accordance with paragraph 5.3.2 to determine whether the Electric Storage Resource will be charged fully by Eligible Renewable Energy Sources to enable its discharge at its Peak Certified Reserve Capacity for the ESR Duration Requirement in each Trading Day.
- 7.3.2. For the purposes of paragraphs 7.3.1, the evidence that the Market Participant may provide to AEMO for the relevant Capacity Year includes:
- (a) where the Market Participant also owns, controls or operates an Intermittent Generating System, any supply contract to sell Eligible Renewable Energy Sources that will not be available to charge the Electric Storage Resource;

- (b) one or more Firm energy supply contracts that the Market Participant entered into with a fuel supplier for an Eligible Renewable Energy Source; or
 - (c) Renewable Energy Certificates created by an accredited large-scale renewable energy power station located in the SWIS and registered with the Clean Energy Regulator which:
 - (i) are valid for the relevant Capacity Year; and
 - (ii) the unique identifier of the large-scale renewable energy power station;
- and
- (d) a plan to mitigate the risk of a shortfall in renewable fuel, including to obtain additional renewable fuel, where the actions undertaken under paragraph 7.3.2(a) and (b) are insufficient to ensure the Electric Storage Resource will be fully charged by Eligible Renewable Energy Sources.
- 7.3.3. AEMO may determine that an Electric Storage Resource will be charged fully by Eligible Renewable Energy Sources for the relevant Capacity Year where the evidence provided by the Market Participant in accordance with paragraph 7.3.2 has demonstrated that sufficient Eligible Renewable Energy Sources will be available to the Electric Storage Resource, based on:
- (a) information received by AEMO:
 - (i) under clause 4.10.1(fA);
 - (ii) in accordance with paragraph 7.3.2(a); and
 - (b) the applicable Electric Storage Resource Obligation Duration period.
- 7.3.4. In accordance with cl.4.10.1(fA)(vi)(2), a Market Participant may provide AEMO with evidence to demonstrate that an Electric Storage Resource was supplied by one or more Eligible Renewable Energy Sources for AEMO to determine whether the Electric Storage Resource was charged fully by Eligible Renewable Energy Sources during the previous Capacity Year.
- 7.3.5. For the purposes of paragraphs 7.3.4, the evidence that the Market Participant may provide to AEMO for the previous Capacity Year includes:
- (a) one or more Firm energy supply contracts that the Market Participant had entered into with a fuel supplier for Eligible Renewable Energy Sources; or
 - (b) Renewable Energy Certificates created by an accredited large-scale renewable energy power station located in the SWIS and registered with the Clean Energy Regulator which:
 - (i) were surrendered to the Market Participant during the previous Capacity Year;
- and:
- (ii) the unique identifier of the large-scale renewable energy power station;
 - (iii) historical dispatch levels; and

- (c) for a Market Participant that also owns, controls or operates an Intermittent Generating System, the estimated Reserve Capacity as indicated in either an independent expert report supplied under clause 4.10.3 or historical output and estimated Reserve Capacity for the Intermittent Generating System and any supply contract to sell Eligible Renewable Energy Sources that will not be available to charge the Electric Storage Resource.
- 7.3.6. Where a Market Participant provides evidence to AEMO in accordance with paragraph 7.3.5, the Market Participant must also submit, at the same time, a written statement to AEMO confirming that an Electric Storage Resource was supplied by one or more Eligible Renewable Energy Sources in the previous Capacity Year.
- 7.3.7. AEMO may determine that the Electric Storage Resource was charged fully by Eligible Renewable Energy Sources in the previous Capacity Year where the evidence provided by the Market Participant in accordance with paragraph 7.3.5 has demonstrated that only Eligible Renewable Energy Sources were used to charge the Electric Storage Resource, based on information received by AEMO:
 - (a) under clause 4.10.1(fA);
 - (b) in accordance with paragraph 7.3.5; and
 - (c) the written statement provided by the Market Participant in accordance with paragraph 7.3.6.
- 7.3.8. AEMO must not determine that an Electric Storage Resource was charged fully by Eligible Renewable Energy Sources during the previous Capacity Year where a written statement is not provided in accordance with paragraph 7.3.6.

7.4. Assignment of Peak Certified Reserve Capacity

- 7.4.1. Based on the outcome of assessments in paragraph 7.2, but subject to any other relevant principles in clause 4.11.1, AEMO must assign a quantity of Peak Certified Reserve Capacity to a Facility, Component, or Facility Upgrade specified in paragraph 7.1.1 equal to the minimum of:
 - (a) the Linearly Derating Capacity determined under paragraph 7.2.4 or 7.2.5; and
 - (b) the Declared Sent Out Capacity.

8. Peak Certified Reserve Capacity Assessment for Demand Side Programmes

8.1. Assignment of Peak Certified Reserve Capacity

- 8.1.1. Unless it has rejected the application in accordance with paragraph 4.3.4, and subject to any other relevant principles in clause 4.11.1, AEMO must assign a quantity of Peak Certified Reserve Capacity to a Demand Side Programme in accordance with clause 4.11.1(j)(i) or 4.11.1(j)(ii), as applicable.

9. Flexible Certified Reserve Capacity Assessment

9.1. Eligibility to be assessed for Flexible Certified Reserve Capacity

9.1.1. Where a Market Participant has indicated that it wishes to apply for Flexible Certified Reserve Capacity in accordance with paragraph 3.1.10, AEMO must assess the following Facilities and Components for Flexible Certified Reserve Capacity in accordance with this paragraph 9:

- (a) Components of Scheduled Facilities;
- (b) Components of Semi-Scheduled Facilities; and
- (c) Demand Side Programmes.

9.1.2. AEMO will use the information provided by the Market Participant in their application to assess if a Facility or Component meets the minimum eligibility requirements, as determined in accordance with the WEM Procedure: Minimum Eligibility Requirements for Flexible Certified Reserve Capacity for the relevant Reserve Capacity Cycle. AEMO's assessment may be automated through validations in WEMS.

E[K] Evidence that can support Flexible Certified Reserve Capacity applications

Examples of evidence to support Flexible Certified Reserve Capacity applications includes reports from independent engineers, technical specifications and information from equipment manufacturers or Generator Performance Standards reporting.

9.2. Maximum output assessment – Scheduled Facility or Semi-Scheduled Facility

9.2.1. AEMO must determine the maximum output (in MW) that a Component specified in paragraphs 9.1.1(a) or 9.1.1(b) could reach within four hours after receiving a Dispatch Instruction in a cold state as a quantity equal to the minimum of:

- (a) the nameplate capacity provided under clause 4.10.1(dA); and
- (b) the four-hour ramp output determined under paragraph 9.2.2.

E[L] Cold state

The synchronisation time for Non-Intermittent Generating Systems may be impacted by the amount of time that has elapsed since the Facility last ran, or last de-synchronised. Market Participants should consider cold state as the state from which their maximum synchronisation time applies. This information is stored in Standing Data for Registered Facilities.

This will not be relevant for an Electric Storage Resource or an Intermittent Generating System.

9.2.2. The four-hour ramp output is calculated as follows:

$$\text{MinStableLevel}(c) + (240 - \text{MinStableTime}(c)) \times \text{RampRate}(c)$$

where:

Variable	Units	Definition
MinStableLevel(c)	MW	The minimum stable loading level of the Component provided under clause 4.10.1(fE)(vii).
MinStableTime(c)	minutes	The minimum time required for the Component to operate at its minimum stable loading level after receiving a Dispatch Instruction while in a cold state as provided under clause 4.10.1(fE)(viii).
RampRate(c)	MW/min	The minimum allowable ramp up rate of the Component as per Minimum Eligibility Requirements in accordance with WEM Procedure: Minimum Eligibility Requirements for Flexible Certified Reserve Capacity.

9.3. Assignment of Flexible Certified Reserve Capacity – Scheduled Facility or Semi-Scheduled Facility

9.3.1. Unless it has rejected the application in accordance with paragraph 4.3.4, and subject to any other relevant principles in clause 4.11.1, AEMO must assign a quantity of Flexible Certified Reserve Capacity to a Component specified in paragraph 9.1.1(a) or 9.1.1(b) equal to the minimum of:

- (a) Peak Certified Reserve Capacity;
- (b) the maximum output determined under paragraph 9.2.1; and
- (c) the quantity nominated by the Market Participant under 4.10.1(fE)(i).

9.4. Assignment of Flexible Certified Reserve Capacity – Demand Side Programme

9.4.1. Unless it has rejected the application in accordance with paragraph 4.2.4, and subject to any other relevant principles in clause 4.11.1, AEMO must assign a quantity of Flexible Certified Reserve Capacity to a Demand Side Programme in accordance with clause 4.11.1(j)(ii) or 4.11.1(jA)(ii), as applicable.

10. Processing applications for Early Certified Reserve Capacity

10.1. Eligibility assessment

10.1.1. To meet the eligibility requirement for Early Certified Reserve Capacity, a Market Participant must apply for Committed Status for the Facility in accordance with WEM Procedure: Minimum Eligibility Requirements for Flexible Certified Reserve Capacity, following the process in Appendix B of the WEM Procedure: Declaration of Bilateral Trades.

- 10.1.2. For the purposes of clause 4.28C.1(d), AEMO may have regard to the following matters:
- (a) the type of Energy Producing System for which Capacity Credits are being sought;
 - (b) any required augmentation of the SWIS;
 - (c) construction of other infrastructure that is not part of the Facility, which may include, but is not limited to, gas pipelines or other fuel delivery infrastructure;
 - (d) the lead times for obtaining equipment required to construct the Facility;
 - (e) any specialist labour requirements; and
 - (f) any other matters that AEMO considers relevant.
- 10.1.3. AEMO must determine that an Energy Producing System that is an Intermittent Generating System does not meet the requirements of clause 4.28C.1(d) unless the Market Participant provides satisfactory evidence (based on the matters specified in paragraph 10.1.2) that the Energy Producing System meets the requirements.
- 10.1.4. A Market Participant must submit an application for Early Certified Reserve Capacity on the template supplied by AEMO, with relevant attachments, to wa.capacity@aemo.com.au by the time and date specified on the Reserve Capacity Timeline.
- 10.1.5. AEMO may request information, in addition to the information already provided in accordance with clause 4.28C.5, from the Market Participant in making its determination under paragraph 10.1.3, specifying a due date for the information to be provided.
- 10.1.6. A Market Participant may, but is not obliged to, provide additional information requested by AEMO under paragraph 10.1.5.
- 10.1.7. If a Market Participant does not provide information requested under paragraph 10.1.5 by the specified due date, AEMO must complete its determination under paragraph 10.1.3 using the information provided by the Market Participant under clause 4.28C.5, which may result in rejection of the application.
- 10.1.8. AEMO must make its determination under paragraph 10.1.3 within 30 Business Days of receiving an application for Early Certified Reserve Capacity.

10.2. Assessment of application and assignment of Early Certified Reserve Capacity

- 10.2.1. Unless it has rejected an application for Early Certified Reserve Capacity, and in accordance with clause 4.28C.7(a), AEMO must assign Early Certified Reserve Capacity to that amount it would normally grant the Facility if processing an application for Certified Reserve Capacity in accordance with clause 4.11.
- 10.2.2. The amount of Peak Early Certified Reserve Capacity to be assigned under paragraph 10.2.1 is determined as follows:
- (a) in accordance with paragraph 5 for a Component that is a Non-Intermittent Generating System;
 - (b) in accordance with paragraph 6 for a Component or Facility that is being assessed using the Relevant Level Method; or

(c) in accordance with paragraph 7 for a Component that is an Electric Storage Resource.

10.2.3. The amount of Early Flexible Certified Reserve Capacity to be assigned under paragraph 10.2.1 is determined in accordance with paragraph 9 for a Component.

Appendix A. Relevant clauses of the ESM Rules

Table 4 details:

- (a) the head of power clauses in the ESM Rules under which the Procedure has been developed; and
- (b) each clause in the ESM 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 4 Relevant clauses of the ESM Rules

Clause
4.9.10(a)
4.9.10(b)
4.9.10(c)(i)
4.9.10(c)(ii)(1)
4.9.10(c)(ii)(2)
4.9.10(c)(iii)
4.10A.11
4.28C.15