



WEM Procedure: Supplementary Capacity

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1.0	23 January 2012	New Market Procedure for Supplementary Reserve Capacity resulting from PC_2010_08
2.0	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 WEM Procedure: Supplementary Capacity (Procedure) is made in accordance with AEMO's functions under clause 2.1A.2(h) of the Wholesale Electricity Market Rules (WEM Rules).
- 1.1.2. The *Electricity Industry Act 2004*, the WEM Regulations and the WEM Rules prevail over this Procedure to the extent of any inconsistency.
- 1.1.3. In this Procedure, where obligations are conferred on a Rule Participant, that Rule Participant must comply with the relevant obligations in accordance with clause 2.9.7A, 2.9.7C, 2.9.7D or 2.9.8, as applicable.
- 1.1.4. This purpose of this Procedure is to document:
- (a) the process AEMO follows in:
 - (i) acquiring Eligible Services;
 - (ii) entering into Supplementary Capacity Contracts;
 - (iii) determining the Maximum Contract Value per hour of availability for any Supplementary Capacity Contract;
 - (iv) determining how a payment in relation to a Supplementary Capacity Contract is to be made to the party identified in clause 4.29.3(e)(ii) if that party is not a Market Participant; and
 - (v) determining under clause 4.24.8(d) that a provider of an Eligible Service has access to the network;
 - (b) requirements regarding the information and assistance AEMO may require from Western Power to support:
 - (i) an expression of interest process or a procurement process for supplementary capacity under clause 4.24; and
 - (ii) measuring the performance of activated Eligible Services subject to a Supplementary Capacity Contract;
 - (c) requirements, developed in consultation with Western Power, regarding the information that must be provided by those intending to respond to a call for expression of interest under clause 4.24.1A or intending to provide supplementary capacity in response to a call for tender or direct negotiation under clause 4.24.2, who request assistance or an assessment from Western Power in accordance with clause 4.24.18B;
 - (d) timelines, developed in consultation with Western Power where applicable, for the provision of requested information and for assistance or an assessment of requests submitted; and
 - (e) contact details for Western Power, which must be used by AEMO or those applying to provide Eligible Services when assistance or assessment by Western Power is requested in accordance with clause 4.24.18B [clause 4.24.18].

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

1.2. Definitions

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

1.2.2. The definitions under Table 1 apply in this Procedure unless the context requires otherwise.

Table 1 Definitions

Term	Definition
Maximum Availability Percentage	The maximum proportion of the total value of a Supplementary Capacity Contract that may be in the form of availability payments.
Maximum Contract Value	The maximum value, in dollars per megawatt per hour, for a Supplementary Capacity Contract that AEMO will accept, as determined in paragraph 7 of this Procedure.
Notional Activation Price	A construct used in the calculation of the Maximum Contract Value, determined in accordance with paragraph 9.1.1(b) of this Procedure.
Notional Availability Price	A construct used in the calculation of the Maximum Contract Value, determined in accordance with paragraph 9.1.1(a) of this Procedure.
Potential Provider	A party responding or intending to respond to a call for expressions of interest under clause 4.24.1A or intending to offer supplementary capacity in response to a call for tender or direct negotiation under clause 4.24.2.
Proposed Service	A service for supplementary capacity proposed by a Potential Provider.

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 apply in this Procedure.
- (b) References to time are references to Australian Western Standard Time.
- (c) Terms that are capitalised, but not defined in this Procedure, have the meaning given in the WEM Rules.
- (d) A reference to the WEM Rules or WEM Procedures includes any associated forms required or contemplated by the WEM Rules or WEM Procedures.
- (e) Words expressed in the singular include the plural and vice versa.
- (f) A reference to a paragraph refers to a paragraph of this Procedure.
- (g) A reference to an appendix refers to an appendix of this Procedure.
- (h) A reference to a clause refers to a clause, section or chapter of the WEM Rules.
- (i) References to WEM Rules in this Procedure in bold and square brackets [**clause XXX**] are included for convenience only, and do not form part of this Procedure.
- (j) Text located in boxes and headed as 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.

1.4. Related documents

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

Table 2 Related documents

Reference	Title	Location
WEM Procedure	Settlement	WEM Website

2. Call for expressions of interest for supplementary capacity

2.1. Advertisement of call for expressions of interest

2.1.1. In addition to the requirements of clauses 4.24.1B, AEMO may include the following information in the call for expressions of interest:

- (a) instructions on how to respond to the call for expressions of interest;
- (b) any terms and conditions that apply to the expressions of interest process;
- (c) indicative timelines for assessment and communication of outcomes;
- (d) criteria for assessing responses; and
- (e) any other information that AEMO considers relevant to the expressions of interest process.

2.1.2. If AEMO decides to advertise a call for expressions of interest for supplementary capacity in accordance with clause 4.24.1A, it may require that the respondent provide the following information in the form specified in clause 4.24.1B(i):

- (a) the name and contact details for the respondent;
- (b) the nature of the services to be offered, including the location of the Proposed Service;
- (c) technical information that may be required to support an assessment of the Proposed Service;
- (d) the quantity of the Proposed Service available; and
- (e) any limitations on the availability of the service.

2.2. Assessment of responses to a call for expressions of interest

- 2.2.1. In assessing responses to a call for expressions of interest for supplementary capacity advertised under clause 4.24.1A, AEMO must request information and assistance from Western Power in relation to any identified network access matters related to Proposed Services contained in responses to the call for expressions of interest.
- 2.2.2. Where AEMO requests information and assistance from Western Power under paragraph 2.2.1, it must provide Western Power with relevant technical information provided by the respondent to support the request.
- 2.2.3. Where Western Power requires additional technical information from AEMO to provide assistance under paragraph 2.2.1, AEMO must, where the information is reasonably available to it and within two Business Days of a request from Western Power, provide the information to Western Power.
- 2.2.4. Where AEMO has requested information and assistance under paragraph 2.2.1, Western Power must advise AEMO, based on information reasonably available to Western Power, whether each Proposed Service would be likely to be capable of meeting the requirements concerning network access related matters outlined in the call for expressions of interest and the standard Supplementary Capacity Contract, conditional on the resolution of any network access matters identified.
- 2.2.5. Western Power must provide reasons for its assessment under paragraph 2.2.4 including relevant supporting information such as outputs of any modelling or analysis, where applicable.
- 2.2.6. Western Power must provide its assessment under paragraph 2.2.4 within 20 Business Days of receiving information under paragraph 2.2.2, unless an extension is agreed by AEMO.
- 2.2.7. In considering whether to agree to an extension under paragraph 2.2.6, AEMO will have regard to any additional information requested by Western Power under paragraph 2.2.3 and any other matters AEMO considers relevant, including, but not limited to, the number and complexity of requests for assistance under paragraph 2.2.1.
- 2.2.8. After receiving Western Power's assessment under paragraph 2.2.6, AEMO may request additional information from Western Power for the purposes of providing feedback to respondents under clause 4.24.1C(c), specifying a due date that is reasonable for the type of information requested.
- 2.2.9. AEMO may agree to an extension to the timeframe under paragraph 2.2.8.

3. Tender process

3.1. Call for tenders

- 3.1.1. In addition to the requirements of clause 4.24.6, AEMO may include the following information in the call for tenders:
 - (a) instructions on how to respond to the tender;

- (b) any terms and conditions that apply to the tender;
- (c) indicative timelines for assessment and communication of outcomes;
- (d) assessment criteria for assessing tenders in accordance with clause 4.24.8; and
- (e) any other information that AEMO considers relevant to the tender process.

3.1.2. For a tender to be considered valid, the tender must:

- (a) be submitted to AEMO by the date and time specified in the call for tenders issued under clause 4.24.6;
- (b) include the information specified in clause 4.24.7 and Table 3, as applicable; and
- (c) specify whether a request for assistance or an assessment in accordance with clause 4.24.18B has been made to Western Power,

unless otherwise agreed by AEMO.

3.2. Assessment of tender responses

- 3.2.1. After the closing date for tender responses, AEMO must assess each response to determine whether the service proposed is an Eligible Service, using the criteria in clause 4.24.3.
- 3.2.2. If AEMO determines that a proposed service is not an Eligible Service, it must notify the Potential Provider that it will not enter into a Supplementary Capacity Contract and provide reasons for its determination.
- 3.2.3. Where AEMO determines that a proposed service is an Eligible Service, it must assess the Eligible Service in accordance with clause 4.24.8 and any assessment criteria that were published in the call for tender under paragraph 3.1.1.
- 3.2.4. In assessing an Eligible Service under paragraph 3.2.3, AEMO may request Western Power's information and assistance in relation to the following matters:
 - (a) any identified network access matters, including whether the Potential Provider of the Eligible Service will have access to the network by the commencement date specified in the tender response; and
 - (b) any other information that AEMO considers is likely to be available to Western Power that will assist in assessing the Eligible Service.
- 3.2.5. Where AEMO requests information and assistance from Western Power under paragraph 3.2.4 in relation to an Eligible Service, AEMO must provide Western Power with relevant technical information provided by the applicant to support the request.
- 3.2.6. Where AEMO requests information and assistance from Western Power under paragraph 3.2.4, it must notify the Potential Provider accordingly, including estimated timeframes for Western Power's response.

- 3.2.7. In responding to a request for assistance under paragraph 3.2.4, Western Power must provide any supporting information or analysis relevant to the request, including, but not limited to outputs of any modelling or analysis.
- 3.2.8. Western Power must provide its response to AEMO's request under paragraph 3.2.4 within 20 Business Days of receiving the request, unless otherwise agreed by AEMO and Western Power.
- 3.2.9. AEMO must consider the response provided by Western Power under paragraph 3.2.8 in assessing a tender response, including determining under clause 4.24.8(d) that a provider of an Eligible Service will have access to the network by the commencement date specified in the applicant's tender.
- 3.2.10. AEMO or Western Power may contact a Potential Provider to request clarification or additional information in relation to the tender response, specifying a due date for the request.
- 3.2.11. The Potential Provider may, but is not obliged to, provide a response to a request by AEMO or Western Power (as relevant) under paragraph 3.2.10.
- 3.2.12. If the Potential Provider does not provide a response to AEMO or Western Power's request under paragraph 3.2.10, AEMO or Western Power (as relevant) will consider the original tender response in making its assessment.
- 3.2.13. AEMO must consider Western Power's response provided under paragraph 3.2.8 in deciding whether to enter into a Supplementary Capacity Contract with a Potential Provider for an Eligible Service.

4. Direct negotiation process

4.1. Western Power support of the direct negotiation process

- 4.1.1. If AEMO decides to procure Eligible Services by direct negotiation in accordance with clause 4.24.2(b)(ii), it may request information or assistance from Western Power regarding network access matters related to an Eligible Service from a potential supplier, specifying a due date that is reasonable for the type of information requested.
- 4.1.2. Where AEMO requests assistance from Western Power under paragraph 4.1.1, it will provide to Western Power relevant information related to the Eligible Service that it considers will enable Western Power to respond to the request, in accordance with clause 4.24.18A.
- 4.1.3. Western Power must provide the information requested under paragraph 4.1.1 by the specified time and date in paragraph 4.1.1 unless otherwise agreed by AEMO and Western Power.
- 4.1.4. AEMO must consider the response provided by Western Power under paragraph 4.1.3 in determining under clause 4.24.8(d) that the Potential Provider will have access to the network by the proposed commencement date.

5. Requests for assistance or an assessment from Western Power

- 5.1.1. Where a Potential Provider requests assistance or assessment from Western Power under clause 4.24.18B, the Potential Provider must provide the information specified in 0, unless otherwise agreed by Western Power, and submit the request to the contact details specified in paragraph 6.1.1.
- 5.1.2. Where Western Power receives a request for assistance or assessment from a Potential Provider under clause 4.24.18B, it must acknowledge the request for assistance or an assessment within two Business Days.
- 5.1.3. Western Power must provide assistance or an assessment in accordance with clause 4.24.18A within 20 Business Days of receiving a request from a Potential Provider in accordance with clause 4.24.18B and paragraph 5.1.1, unless otherwise agreed by AEMO and Western Power.
- 5.1.4. Western Power may, in its sole discretion, decide not to provide assistance or assessment under paragraph 5.1.3 for a potential Eligible Service that Western Power determines is substantively the same as a Proposed Service that has not been assessed by Western Power as being 'likely to be capable of meeting the requirements concerning network access related matters outlined in the call for expressions of interest and the standard Supplementary Capacity Contract' under paragraph 2.2.4(a).
- 5.1.5. A Potential Provider must advise AEMO of any outcome of a request to Western Power for assistance or an assessment for a proposed Eligible Service under clause 4.24.18B.

Table 3 Information requirements for Potential Providers requesting assistance or an assessment from Western Power

Category of Proposed Service	Information required to support assessment
Load Reduction, under clause 4.24.3(a)	<ul style="list-style-type: none"> – National Metering Identifier(s). – Associated NMI contact details.
Production of electricity by Energy Producing Systems that are not Registered Facilities, under clause 4.24.3(b)	<ul style="list-style-type: none"> – Information about the relevant connection point, including its location, capacity, voltage and any other information the applicant considers relevant. – Evidence to allow confirmation of compliance with the Technical Rules. – Relevant technical data, including protection data, size of energy producing systems, technical specifications, metering, synchronising/desynchronising methodologies.
Production of electricity by Energy Producing Systems that are Registered Facilities, under clause 4.24.3(c)(i)	<ul style="list-style-type: none"> – Evidence regarding Arrangement for Access, including an up-to-date generation system model. – Evidence demonstrating compliance with the Technical Rules, or Generator Performance Standards (clause 3A and Appendix 12 of the WEM Rules), as applicable.
Production of electricity by Energy Producing Systems that are Registered Facilities, under clause 4.24.3(c)(ii)	<ul style="list-style-type: none"> – Evidence regarding Arrangement for Access, including an up-to-date generation system model. – Evidence demonstrating compliance with the Technical Rules, or Generator Performance Standards (clause 3A and Appendix 12 of the WEM Rules) as applicable. – Evidence demonstrating how the installation of physical equipment will enable the provision of the offered capacity. – Evidence that the offered capacity is additional to that which existed prior to the installation of the physical equipment.
Load Reduction provided by a Market Participant, under clause 4.24.3(c)(ii)	<ul style="list-style-type: none"> – National Metering Identifier(s). – Associated NMI contact details. – Evidence demonstrating how the installation of physical equipment will enable the provision of the offered capacity. – Evidence that the offered capacity is additional to the maximum amount of load that can be curtailed, which existed prior to the installation of the physical equipment.

6. Western Power Contact Details

- 6.1.1. Any request for information, assistance or an assessment from Western Power under clause 4.24.18B must be directed to network.access@westernpower.com.au, unless otherwise advised by Western Power.

7. Measuring performance of Eligible Services

- 7.1.1. AEMO may request Western Power's information and assistance to measure the performance of an activated Eligible Service subject to a Supplementary Capacity Contract.
- 7.1.2. Where AEMO requests assistance from Western Power under paragraph 7.1.1 it will specify a due date that is reasonable for the type of information being requested.
- 7.1.3. Where AEMO requests assistance from Western Power under paragraph 7.1.1, it will provide to Western Power relevant information related to the Eligible Service that it considers will enable Western Power to respond to the request, in accordance with clause 4.24.18A.
- 7.1.4. Western Power must provide the information requested under paragraph 7.1.1 by the specified time and date in paragraph 7.1.2 unless otherwise agreed by AEMO and Western Power.

8. Settlement

- 8.1.1. Where a party providing an Eligible Service is a Market Participant, settlement of Supplementary Capacity Contracts will be undertaken in accordance with clause 9.
- 8.1.2. Where a party providing an Eligible Service is not a Market Participant, AEMO must calculate the supplementary capacity payment to be made by AEMO to the party for the supplementary capacity in accordance with the Supplementary Capacity Contract.
- 8.1.3. A supplementary capacity payment from AEMO to a party that is not a Market Participant must be made in accordance with and by the time and date specified in the Supplementary Capacity Contract.

9. Determination of the Maximum Contract Value

9.1.1. AEMO must determine the Maximum Contract Value per hour of availability for any Supplementary Capacity Contract that AEMO will accept in accordance with the following steps:

- (a) the Notional Availability Price in dollars per megawatt (\$/MW) is calculated in accordance with the following formula:

$$NP_{av}(P_{RC}, d) = P_{RC} \times \frac{d}{x}$$

where:

Variable	Unit	Definition
P_{RC}	\$/MW	The Reserve Capacity Price for the Capacity Year for which supplementary capacity is being procured.
d	Days	The term of the Supplementary Capacity Contract.
x	Days	The length of the Hot Season.

- (b) the Notional Activation Price is calculated as double the Alternative Maximum STEM Price in dollars per megawatt hour (\$/MWh);
- (c) the Maximum Contract Value in dollars per megawatt per hour (\$/MW/hr) is calculated in accordance with the following formula:

$$MCV(NP_{av}, NP_{ac}, t) = \frac{NP_{av} + (NP_{ac} \times t)}{t}$$

where:

Variable	Unit	Definition
NP_{av}	\$/MW	The Notional Availability Price.
NP_{ac}	\$/MWh	The Notional Activation Price.
t	Hours	The number of hours during which the supplementary capacity is expected to be required.

- (d) To ensure sufficient incentive for a provider of an Eligible Service to activate that service, AEMO may stipulate that the availability price must not exceed a given percentage of the contract value. AEMO may set the Maximum Availability Percentage at any value up to:

$$MAP(NP_{av}, MCV, t) = \frac{NP_{av}}{MCV \times t} \times 100$$

where:

Variable	Unit	Definition
NP_{av}	\$/MW	The Notional Availability Price.
MCV	\$/MW/hour	The Maximum Contract Value.
t	Hours	The number of hours during which the supplementary capacity is expected to be required.

E[A] Example calculation of Maximum Contract Value

This explanatory note contains example calculations of the Maximum Contract Value and the Maximum Availability Percentage.

The following assumptions are used in this example:

- Supplementary capacity required is 200 MW.
- Start date is 15 November, end date is 31 January. Duration is 78 days.
- Supplementary capacity is expected to be dispatched for 75 hours.
- The Reserve Capacity Price is \$150,000.
- The Alternative Maximum STEM Price is \$950/MWh.

Using the formula in paragraph 9.1.1(a), the Notional Availability Price is **\$96,694/MW**.

Using the formula in paragraph 9.1.1(b), the Notional Activation Price is **\$1,900/MWh**.

Therefore, the Maximum Contract Value, calculated using the formula in paragraph 9.1.1(c), is **\$3,189/MW/hr**.

The Maximum Availability Percentage, if one was applied to the Supplementary Capacity Contract, would be calculated under paragraph 9.1.1(d) as **40%**.

Appendix A. Relevant clauses of the WEM Rules

Table 4 details:

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

Table 4 Relevant clauses of the WEM Rules

Clause
4.24.18