

WEM PROCEDURE: ELECTRIC STORAGE RESOURCE OBLIGATION INTERVALS

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1. INTRODUCTION

1.1. Purpose and scope

- 1.1.1. This WEM Procedure: Electric Storage Resource Obligation Intervals (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 or 2.9.8 of the WEM Rules, as applicable.
- 1.1.4. The purpose of this Procedure is to describe the steps that AEMO must take when:
 - (a) determining the Electric Storage Resource Obligation Intervals for each Trading Day;
 - (b) amending the Electric Storage Resource Obligation Intervals for a Capacity Year;
 - (c) consulting with Market Participants if it intends to amend the Electric Storage Resource Obligation Intervals; and
 - (d) publishing the Electric Storage Resource Obligation Intervals on the WEM Website.
- 1.1.5. Appendix A of this Procedure outlines the head of power clauses that this Procedure is made under, as well as other obligations in the WEM Rules covered by this Procedure.

1.2. Definitions

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

Term	Meaning
Peak Demand Period	A set of contiguous Trading Intervals when peak demand is forecast to occur based on the scenarios specified in clause 4.5.10(a)(iii) or 4.5.10(a)(iv) of the WEM Rules.
Shoulder Season	Either of the following periods of consecutive Trading Days in each Capacity Year:1 April to 31 May, inclusive.1 September to 30 November, inclusive.
Summer	The period of consecutive Trading Days between 1 December and 31 March, inclusive, in each Capacity Year.
Winter	The period of consecutive Trading Days between 1 June and 31 August, inclusive, in each Capacity Year.

Table 1 Definitions



1.3. Interpretation

- 1.3.1. The following principles of interpretation apply in this Procedure unless the context requires otherwise:
 - Clauses 1.3 to 1.5 of the WEM Rules apply in this Procedure. (a)
 - References to time are references to Australian Western Standard Time. (b)
 - Terms that are capitalised, but not defined in this Procedure, have the meaning given in the (C) WEM Rules.
 - A reference to the WEM Rules or WEM Procedures includes any associated forms required (d) or contemplated by the WEM Rules or WEM Procedures.
 - Words expressed in the singular include the plural and vice versa. (e)
 - A reference to a paragraph refers to a paragraph of this Procedure. (f)
 - A reference to a clause refers to a clause or section of the WEM Rules. (q)
 - (h) References to WEM Rules in this Procedure in bold and square brackets [Clause XXX] are included for convenience only, and do not form part of this Procedure.
 - (i) Text located in boxes and headed as Explanatory Note X in this Procedure is included by way of explanation only and does not form part of this Procedure. The Procedure prevails to the extent of any inconsistency with the explanatory notes contained within it.
 - The body of this Procedure prevails to the extent of any inconsistency with the figures, (j) 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 Rules	WEM Rules	Economic Regulation Authority website
WEM Procedure	Market Procedure: Notices and Communications	WEM Website
WEM Procedure	Market Procedure: Certification of Reserve Capacity	WEM Website
WEM Procedure	Market Procedure: Reserve Capacity Testing	WEM Website
WEM Procedure	Market Procedure: Undertaking the LT PASA and conducting a review of the Planning Criterion	WEM Website
WEM Procedure	Power System Operation Procedure: Facility Outages	WEM Website



2. DETERMINING THE ELECTRIC STORAGE RESOURCE OBLIGATION INTERVALS

- 2.1.1. In accordance with clause 4.11.3A(a) of the WEM Rules, AEMO must determine the Trading Intervals in each Trading Day that are classified as Electric Storage Resource Obligation Intervals.
- 2.1.2. AEMO must determine the Electric Storage Resource Obligation Intervals, for each Trading Day within the Capacity Year commencing on 1 October of Year 3 of a Reserve Capacity Cycle under paragraph 2.1.1 of this Procedure, in Year 1 of the relevant Reserve Capacity Cycle.
- 2.1.3. AEMO must determine a Peak Demand Period for each of the following seasons using the forecasts developed in accordance with clauses 4.5.10(a)(iii) and 4.5.10(a)(iv) of the WEM Rules for the Capacity Year specified in paragraph 2.1.2 of this Procedure:
 - (a) Shoulder Season;
 - (b) Winter; and
 - (c) Summer.
- 2.1.4. Based on the Peak Demand Periods determined in paragraph 2.1.3(a), 2.1.3(b), and 2.1.3(c) of this Procedure, AEMO may determine that the Electric Storage Resource Obligation Intervals for a Capacity Year will be either:
 - (a) the same for each Trading Day; or
 - (b) variable according to whether the Trading Day falls within the Shoulder Season, Summer, or Winter.
- 2.1.5. In making its determination under paragraph 2.1.4 of this Procedure, AEMO must take the following factors into account:
 - (a) any overlap between the timing of each Peak Demand Period in the Shoulder Season, Summer, and Winter seasons, where the degree of overlap may indicate that there is no need to seasonally vary the Electric Storage Resource Obligation Intervals;
 - (b) any operational requirements of the system, including evaluation of Outage Plans; and
 - (c) any other factors that AEMO considers relevant.



- 2.1.6. If AEMO has determined that the Electric Storage Resource Obligation Intervals will be the same for each Trading Day for the relevant Capacity Year under paragraph 2.1.4(a) of this Procedure and the Peak Demand Period occurs over fewer than eight Trading Intervals, then it must determine the Trading Intervals in each Trading Day that are classified as Electric Storage Resource Obligation Intervals by adding Trading Intervals at either side of the Peak Demand Period determined in paragraph 2.1.3(c) of this Procedure until the total number of Trading Intervals equals the Electric Storage Resource Obligation Duration.
- 2.1.7. If AEMO has determined that the Electric Storage Resource Obligation Intervals will be seasonally variable under paragraph 2.1.4(b) of this Procedure and each Peak Demand Period calculated for a respective season occurs over fewer than eight Trading Intervals, then it must determine the Trading Intervals in each Trading Day that are classified as Electric Storage Resource Obligation Intervals for each season as follows:
 - (a) for the Shoulder Season, by adding Trading Intervals at either side of the Peak Demand Period determined in paragraph 2.1.3(a) of this Procedure until the total number of Trading Intervals equals the Electric Storage Resource Obligation Duration;
 - (b) for Winter, by adding Trading Intervals at either side of the Peak Demand Period determined in paragraph 2.1.3(b) of this Procedure until the total number of Trading Intervals equals the Electric Storage Resource Obligation Duration; and
 - (c) for Summer, by adding Trading Intervals at either side of the Peak Demand Period determined in paragraph 2.1.3(c) of this Procedure until the total number of Trading Intervals equals the Electric Storage Resource Obligation Duration.



- 2.1.8. AEMO must publish the Electric Storage Resource Obligation Intervals by following the processes in paragraphs 5.1.1, 5.1.2, and 5.1.3 of this Procedure.
- 2.1.9. The Electric Storage Resource Obligation Intervals determined under paragraph 2.1.6 or 2.1.7 of this Procedure in Year 1 of the relevant Reserve Capacity Cycle will apply for the Capacity Year commencing on 1 October of Year 3 of the relevant Reserve Capacity Cycle.

3. FORECASTING FUTURE ELECTRIC STORAGE RESOURCE OBLIGATION INTERVALS

- 3.1.1. In addition to the obligations in clause 4.11.3A of the WEM Rules and for information purposes only, AEMO may, but is not required to, prepare a forecast of the Electric Storage Resource Obligation Intervals for the remainder of the period of the relevant Long Term PASA Study Horizon that has not yet been determined under paragraph 2.1.2 of this Procedure, by the time and date specified in clause 4.1.8 of the WEM Rules.
- 3.1.2. For the avoidance of doubt, any forecast of the Electric Storage Resource Obligation Intervals, prepared under paragraph 3.1.1 of this Procedure, is not binding on AEMO or Market Participants.
- 3.1.3. In preparing a forecast of the Electric Storage Obligation Intervals under paragraph 3.1.1 of this Procedure, AEMO may follow the same methodology specified in paragraphs 2.1.3, 2.1.4, 2.1.5, 2.1.6, and 2.1.7 of this Procedure for each Capacity Year in the Long Term PASA Study Horizon, excluding the Capacity Year specified in paragraph 2.1.2 of this Procedure.
- 3.1.4. If AEMO prepares a forecast of the Electric Storage Resource Obligation Intervals under paragraph 3.1.1 of this Procedure, it may publish the following information in the Statement of Opportunities Report published in accordance with clause 4.5.11 of the WEM Rules:
 - (a) the forecast of the Electric Storage Resource Obligation Intervals for each Capacity Year in the relevant Long Term PASA Study Horizon, excluding the Capacity Year specified in paragraph 2.1.2 of this Procedure; and
 - (b) any supporting analysis, information, or data that AEMO considers to be relevant.



4. AMENDING THE ELECTRIC STORAGE RESOURCE OBLIGATION INTERVALS

- 4.1.1. In accordance with clause 4.11.3A(b) of the WEM Rules, AEMO may only amend the Electric Storage Resource Obligation Intervals that were previously determined to be the Electric Storage Resource Obligation Intervals for a Capacity Year as permitted under the WEM Rules and in consultation with Market Participants.
- 4.1.2. AEMO must review the Electric Storage Resource Obligation Intervals previously determined under paragraph 2.1.2 of this Procedure for a Capacity Year at the time it prepares the Statement of Opportunities report in Year 3 of the relevant Reserve Capacity Cycle.
- 4.1.3. If, as part of its review under paragraph 4.1.2 of this Procedure, AEMO determines a new Peak Demand Period which differs by more than two Trading Intervals to the Peak Demand Period previously determined by AEMO, then AEMO must propose to amend the relevant Electric Storage Resource Obligation Intervals to reflect the updated Peak Demand Period.
- 4.1.4. If AEMO proposes to amend the Electric Storage Resource Obligation Intervals under paragraph 4.1.3 of this Procedure, it must publish the following on the WEM Website:
 - (a) the proposed amended Electric Storage Resource Obligation Intervals;
 - (b) an invitation for written submissions on the proposed amended Electric Storage Resource Obligation Intervals;
 - the closing date for consultation, which must be at least 10 Business Days from the date of publishing the proposed amended Electric Storage Resource Obligation Intervals on the WEM Website;
 - (d) the method by which submissions should be provided, as required by clause 4.11.3A(b) of the WEM Rules.



- 4.1.5. Market Participants may provide a submission in response to the AEMO's invitation under paragraph 4.1.4(b) of this Procedure by the closing date published on the WEM Website under paragraph 4.1.4(b) of this Procedure.
- 4.1.6. In determining whether to amend the Electric Storage Resource Obligation Intervals, AEMO must consider any submissions received in accordance with paragraph 4.1.6 of this Procedure and may, at its discretion, consider any submissions received after the closing date published on the WEM Website under paragraph 4.1.4(b) of this Procedure.
- 4.1.7. AEMO may contact Market Participants who provided a submission under paragraph 4.1.5 of this Procedure to request clarification or further information in relation to their submission, specifying a due date for this request.
- 4.1.8. AEMO must use the method specified in paragraph 2.1.1(d) of the WEM Procedure: Notices and Communications when contacting Market Participants under paragraph 4 of this Procedure.
- 4.1.9. A Market Participant may, but is not obliged to, provide a response to a request by AEMO under paragraph 4.1.7 of this Procedure.
- 4.1.10. If a Market Participant does not provide a response to AEMO's request under paragraph 4.1.7 of this Procedure, AEMO's decision on whether to amend the Electric Storage Resource Obligation Intervals will be based on the original submission.
- 4.1.11. If AEMO, in its sole discretion, and after considering all submissions received under paragraph 4.1.5 of this Procedure, decides to amend the Electric Storage Resource Obligation Intervals, it must:
 - (a) publish a notice on the WEM Website at least 20 Business Days before the start of the relevant Capacity Year; and
 - (b) within two Business Days of publishing the notice in paragraph 4.1.11(a) of this Procedure and using the method specified in paragraph 2.1.1(d) of the WEM Procedure: Notices and Communications, notify the Market Participant who owns, controls, or operates a Facility that contains an Electric Storage Resource that was assigned Capacity Credits for the relevant Reserve Capacity Cycle, of the amended Electric Storage Resource Obligation Intervals.

5. PUBLISHING THE ELECTRIC STORAGE RESOURCE OBLIGATION INTERVALS

- 5.1.1. Under clause 4.11.3A(a) of the WEM Rules, AEMO must publish details, on the WEM Website, of the Trading Intervals in each Trading Day that are classified as Electric Storage Resource Obligation Intervals by the date and time specified in clause 4.1.8 of the WEM Rules.
- 5.1.2. AEMO may publish the following information in the Statement of Opportunities report or in a separate document, at AEMO's sole discretion:
 - (a) the Peak Demand Period used to determine the Electric Storage Resource Obligation Intervals, as identified in paragraph 2.1.3 of this Procedure;
 - (b) any supporting analysis that AEMO conducted under paragraph 2.1.5 of this Procedure; and
 - (c) any other information used to determine the Electric Storage Resource Obligation Intervals that AEMO considers relevant.



APPENDIX A. RELEVANT CLAUSES OF THE WEM RULES

Table 3 details:

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

Table 3 Relevant clauses of the WEM Rules

uble 5	Kelevalli Clauses
Clause	
4.11.3A(c))(i)
4.11.3A(c 4.11.3A(c 4.11.3A(c Chapter Storage)(ii)
4.11.3A(c))(iii)
4.11.3A(c) 4.11.3A(c) Chapter 1 Storage F Duration	11 definition: Electric Resource Obligation