

WEM Procedure: Dispatch Compliance

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1.0	21 April 2018	First version developed in accordance with clause 2.13.19 of the WEM Rules
2.0	15 October 2024	Replacement Procedure. Draft version developed in accordance with Tranches 2 and 3 Amending Rules and Tranche 6 Amending Rules.

IMPORTANT NOTICE

Explanatory Notes Disclaimer

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1. Introduction

1.1. Purpose and scope

- 1.1.1. This WEM Procedure: Dispatch Compliance (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* (WA), the WEM Regulations and the WEM Rules prevail over this Procedure to the extent of any inconsistency.
- 1.1.3. In this Procedure, where obligations are conferred on a Rule Participant, that Rule Participant must comply with the relevant obligations in accordance with clause 2.9.7A, 2.9.7D or 2.9.8 of the WEM Rules, as applicable.
- 1.1.4. The purpose of this Procedure is to describe:
- (a) the process for determining, consulting on, and reviewing a Tolerance Range and any Facility Tolerance Ranges under clauses 2.13.16, 2.13.17 and 2.13.21 **[clause 2.13.19(a)]**;
 - (b) matters, events or circumstances that may trigger a review of a Tolerance Range and a Facility Tolerance **[clause 2.13.19(b)]**;
 - (c) how AEMO will monitor dispatch compliance before, during or after a Dispatch Instruction event **[clause 2.15.4(b)]**;
 - (d) the processes to be followed by AEMO when it observes repeated non-compliance by a Market Participant in accordance with the WEM Procedure referred to in clause 2.15.4 **[clause 7.10.21(a)]**; and
 - (e) the method for calculating an Electric Storage Resource's contribution to the relevant Semi-Scheduled Facility's deviation from its Dispatch Forecast for the purposes of clause 7.10.4 **[clause 7.10.5]**.
- 1.1.5. Appendix A of this Procedure outlines the head of power clauses that this Procedure is made under, as well as other obligations in the WEM Rules covered by this Procedure.

1.2. Definitions

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

Table 1 Definitions

Term	Definition
Dispatch Instruction Event	As defined under paragraph 4.1.1
Performance Requirements	As defined in WEM Procedure: Frequency Cooptimised Essential System Services Accreditation.
Repeated Non-Compliance	The recurrence of non-compliance of a Market Participant with regards to a Facility before, during or after a Dispatch Instruction Event of a sufficient frequency or materiality that, in AEMO's reasonable opinion, warrants a reassessment of the Facility's Standing Data or Dispatch Algorithm inputs.

1.3. Interpretation

- 1.3.1. The following principles of interpretation apply in this Procedure unless the context requires otherwise.
- (a) Clauses 1.3 to 1.5 of the WEM Rules apply in this Procedure.
 - (b) References to time are references to Australian Western Standard Time.
 - (c) Terms that are capitalised, but not defined in this Procedure, have the meaning given in the WEM Rules.
 - (d) A reference to the WEM Rules or WEM Procedures includes any associated forms required or contemplated by the WEM Rules or WEM Procedures.
 - (e) Words expressed in the singular include the plural and vice versa.
 - (f) A reference to a paragraph refers to a paragraph of this Procedure.
 - (g) A reference to an appendix refers to an appendix of this Procedure.
 - (h) A reference to a clause refers to a clause or section 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 **[EX]** 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	WEM Procedure: Facility Dispatch Process	WEM Website
WEM Procedure	WEM Procedure: Frequency Cooptimised Essential System Services Accreditation	WEM Website
WEM Procedure	WEM Procedure: Monitoring and Reporting Protocol	WEM Website
WEM Procedure	WEM Procedure: Outages	WEM Website

2. Tolerance Range

2.1. Proposing a Tolerance Range

- 2.1.1. AEMO may propose a Tolerance Range by considering the following factors:
- (a) the degree of compliance with Dispatch Instructions that is required to maintain Power System Security and Power System Reliability; and
 - (b) the degree of costs imposed on Market Participants as a result of AEMO's monitoring of compliance with Dispatch Instructions;
 - (c) the provision of Essential System Services; and
 - (d) any other circumstances or information that AEMO considers relevant.
- 2.1.2. AEMO must set any upper or lower bound of a Tolerance Range proposed under paragraph 2.1.1 to the nearest whole MW.
- 2.1.3. In proposing a Tolerance Range under paragraph 2.1.1, AEMO may apply a formula to each Facility Class.

2.2. Consulting on a proposed Tolerance Range

- 2.2.1. AEMO must publish on the WEM Website for consultation with Rule Participants a Tolerance Range proposed under paragraph 2.1.1 or paragraph 2.3.2, as applicable, and a notice inviting Rule Participants to make a submission on the proposed Tolerance Range.
- 2.2.2. AEMO must allow a minimum of 20 Business Days for Rule Participants to make a submission when consulting on a proposed Tolerance Range.
- 2.2.3. Rule Participants may make a submission on a proposed Tolerance Range by emailing submissions to AEMO via the email address published in AEMO's notice.

2.3. Publishing a Tolerance Range

- 2.3.1. Following consultation on a proposed Tolerance Range, AEMO must determine whether to apply a proposed Tolerance Range or whether to propose another Tolerance Range.
- 2.3.2. If AEMO determines, based on submissions by Rule Participants or other information AEMO has at hand, that a Tolerance Range that differs from that consulted on under paragraph 2.2 is appropriate, AEMO must consult on the new proposed Tolerance Range in accordance with paragraph 2.2 and must publish submissions received from Rule Participants on the initial proposed Tolerance Range.
- 2.3.3. AEMO must publish a Tolerance Range on the WEM Website in accordance with clause 2.13.16(b).

2.4. Reviewing a Tolerance Range

- 2.4.1. AEMO must review a Tolerance Range if the Economic Regulation Authority makes a request under clause 2.13.21.
- 2.4.2. AEMO may review a Tolerance Range:
- (a) annually, if AEMO considers it appropriate;
 - (b) if factors considered under paragraph 2.1.1 have changed since a Tolerance Range was last determined and in AEMO's opinion may require a different Tolerance Range;
 - (c) if requested by a Rule Participant and AEMO considers, based on this request, that a review is required; and
 - (d) if a Facility is registered and AEMO considers the existing Tolerance Range for the Facility Class of the Facility is not appropriate.
- 2.4.3. The factors that AEMO must consider in reviewing a Tolerance Range include, but are not limited to:
- (a) any requests received from Rule Participants;
 - (b) the number and extent of historical deviations from Dispatch Instructions;
 - (c) the likely impacts of deviations from Dispatch Instructions on the requirements for Regulation Raise and Regulation Lower Essential System Services; and
 - (d) any other circumstances or information that AEMO considers relevant.
- 2.4.4. Following AEMO's review, if AEMO considers that a current Tolerance Range requires adjustment, AEMO must determine a new proposed Tolerance Range in accordance with paragraph 2.1.
- 2.4.5. Following AEMO's review, if AEMO does not consider the Tolerance Range requires adjustment, AEMO must publish the outcomes of AEMO's review on the WEM Website, including:
- (a) any requests received from Rule Participants under paragraph 2.4.2(c) or the Economic Regulation Authority under clause 2.13.21, as applicable;
 - (b) the reasons for AEMO's decision; and
 - (c) any submissions received from Market Participants.

3. Facility Tolerance Range

3.1. Proposing a Facility Tolerance Range

- 3.1.1. AEMO may propose a Facility Tolerance Range to apply to a Registered Facility in place of a Tolerance Range, considering the following factors:
- (a) Standing Data and any operating constraints on the Registered Facility of which AEMO is aware at the time of making the determination;

- (b) individual Facility ramping behaviour;
- (c) allowances for droop response or other operational behaviour required under a Registered Facility's Registered Generator Performance Standard;
- (d) any Essential System Services provided by the Registered Facility; and
- (e) any other information AEMO considers relevant.

3.1.2. AEMO must set any upper or lower bound of a proposed Facility Tolerance Range determined under paragraph 3.1.1 to the nearest whole MW.

3.2. Consulting on the proposed Facility Tolerance Range

- 3.2.1. AEMO must publish for consultation on the WEM Website a Facility Tolerance Range as proposed under paragraph 3.1.1 or 3.3.2, as applicable.
- 3.2.2. AEMO must allow a minimum of 20 Business Days when consulting under paragraph 3.2.1 and a notice inviting Market Participants to make a submission on the proposed Facility Tolerance Range.
- 3.2.3. Market Participants may make a submission on the proposed Facility Tolerance Range published under paragraph 3.2.1 by emailing submissions to AEMO via the email address published in AEMO's notice.

3.3. Publishing a Facility Tolerance Range

- 3.3.1. Following consultation under paragraph 3.2.1, AEMO must determine whether to adopt the proposed Facility Tolerance Range or whether to propose another Facility Tolerance Range.
- 3.3.2. If AEMO determines based on submissions by Market Participants, or other information AEMO has at hand, that a Facility Tolerance Range that differs from that consulted on under paragraph 3.2.1 is appropriate, AEMO must consult on the new proposed Facility Tolerance Range in accordance with paragraph 3.2 and must publish submissions received from Market Participants on the initial proposed Facility Tolerance Range.
- 3.3.3. AEMO must publish the updated Facility Tolerance Range on the WEM Website in accordance with clause 2.13.17(b).

3.4. Reviewing a Tolerance Range or Facility Tolerance Range applicable to a Facility

- 3.4.1. AEMO must review a Tolerance Range or Facility Tolerance Range applicable to a Registered Facility if the Economic Regulation Authority makes a request under clause 2.13.21.
- 3.4.2. A Market Participant may request AEMO to review a Tolerance Range or Facility Tolerance Range applicable to the Market Participant's Facility.
- 3.4.3. A request by a Market Participant under paragraph 3.4.2 must be by email to AEMO.

- 3.4.4. A request by a Market Participant under paragraph 3.4.2 must include evidence supporting why the current Tolerance Range or Facility Tolerance range would be inappropriate to apply to the Facility.
- 3.4.5. AEMO may review the Facility Tolerance Range to apply to a Registered Facility:
- (a) if factors considered under paragraph 3.1.1 have changed since the Facility Tolerance Range was determined and in AEMO's opinion may require a different Facility Tolerance Range; or
 - (b) if requested by a Rule Participant under paragraph 3.4.2 and AEMO considers, based on this request, that a review is required.
- 3.4.6. In reviewing a Facility Tolerance Range to apply to a Registered Facility, AEMO may consider factors including:
- (a) any submissions received from Market Participants;
 - (b) the number and extent of historical deviations from Dispatch Instructions;
 - (c) the likely impacts of deviations from Dispatch Instructions on the requirements for Regulation Raise and Regulation Lower Essential System Services;
 - (d) the variability of the overall system generation or load movement on the SWIS at any point in time; and
 - (e) any other factors that may influence the real-time operation of the SWIS.
- 3.4.7. Following AEMO's review, if AEMO considers that a Facility Tolerance Range requires adjustment, AEMO must determine a new proposed Facility Tolerance Range in accordance with paragraph 3.1.
- 3.4.8. Following AEMO's review, if AEMO does not consider a Facility Tolerance Range is required or requires adjustment, AEMO must publish the outcomes of AEMO's review on the WEM Website, including:
- (a) any requests received from Market Participants under paragraph 3.4.2 or the Economic Regulation Authority under clause 2.13.21, as applicable;
 - (b) the reasons for AEMO's decision; and
 - (c) any submissions received from Market Participants.

4. Monitoring dispatch compliance before, during or after a Dispatch Instruction Event

4.1. Dispatch Instruction Event

- 4.1.1. A Dispatch Instruction Event comprises:
- (a) AEMO issuing a Dispatch Instruction;
 - (b) the Dispatch Instruction itself;

- (c) acknowledgement or confirmation from the Market Participant of a Dispatch Instruction, if required under the WEM Rules or a WEM Procedure; and
- (d) the Injection or Withdrawal of a Facility throughout the duration of the Dispatch Instruction.

4.2. Real-time monitoring of dispatch compliance

4.2.1. AEMO will use any relevant processes and systems, such as SCADA for SCADA-enabled Facilities, it has in place to monitor dispatch compliance on a periodic basis during a Dispatch Instruction Event, including:

- (a) Facility deviations outside of the Tolerance Range or applicable Facility Tolerance Range;
- (b) Facility ramping behaviour; and
- (c) details of any notification provided by the Market Participant under clause 7.10.7.

4.2.2. In monitoring dispatch compliance under paragraph 4.2.1, where a Registered Facility is enabled for a Regulation Raise or Regulation Lower service, AEMO will:

- (a) positively offset the upper bound of the Tolerance Range by an amount equivalent to the cleared quantity of Regulation Raise for the relevant Dispatch Interval; and
- (b) negatively offset the lower bound of the Tolerance Range by an amount equivalent to the cleared quantity of Regulation Lower for the relevant Dispatch Interval.

4.2.3. AEMO will not monitor dispatch compliance in real-time when relevant IT systems are not available.

4.3. Ex-post monitoring of dispatch compliance

4.3.1. AEMO may use any relevant processes and systems it has in place to monitor dispatch compliance after a Dispatch Instruction Event, including, but not limited to monitoring:

- (a) acknowledgement and confirmation of Dispatch Instructions;
- (b) Forced Outage submissions, including whether submissions accurately reflect the latest:
 - (i) outage quantities, start times, and end times entered in the Outage Management System; and
 - (ii) availability of the Facility as entered in its effective Real-Time Market Submissions;
- (c) Facility deviations outside of the Tolerance Range or applicable Facility Tolerance Range;
- (d) Facility ramping behaviour;
- (e) droop response or other operational behaviour required under the Registered Generator Performance Standard for the Facility; and
- (f) details of any notification provided by the Market Participant under clause 7.10.7.

- 4.3.2. In monitoring dispatch compliance under paragraph 4.3.1, where a Registered Facility was enabled for a Regulation Raise or Regulation Lower service, AEMO will:
- (a) positively offset the upper bound of the Tolerance Range by an amount equivalent to the cleared quantity of Regulation Raise for the relevant Dispatch Interval; and
 - (b) negatively offset the lower bound of the Tolerance Range by an amount equivalent to the cleared quantity of Regulation Lower for the relevant Dispatch Interval.
- 4.3.3. In monitoring dispatch compliance under paragraph 4.3.1, where a Registered Facility was enabled for Contingency Reserve Raise or Contingency Reserve Lower, and the Facility has provided the relevant service(s) in accordance with the Performance Requirements specified in the WEM Procedure: Frequency Cooptimised Essential System Services Accreditation, AEMO will not consider the Facility to be non-compliant with a Dispatch Instruction if it deviates outside of its Tolerance Range or applicable Facility Tolerance Range by an amount less than the cleared quantity of Contingency Reserve Raise or Contingency Reserve Lower for the relevant Dispatch Interval.

5. Repeated non-compliance by a Market Participant

- 5.1.1. Subject to clause 2.13.14, AEMO must report any Repeated Non-Compliance it becomes aware of in accordance with the WEM Procedure: Monitoring and Reporting Protocol.
- 5.1.2. If AEMO observes Repeated Non-Compliance with Dispatch Targets or Dispatch Caps relating to a Market Participant's Facility, it must:
- (a) assess whether relevant Standing Data for the Facility is accurate; and
 - (b) assess whether the inputs to the Dispatch Algorithm, other than Standing Data, accurately reflect the capability of the relevant Registered Facility.
- 5.1.3. AEMO will request a Market Participant to update Standing Data in accordance with clause 2.34.11, if AEMO considers in its assessment under paragraph 5.1.2(a) that Standing Data for a Facility is inaccurate or no longer accurate.
- 5.1.4. In accordance with clause 2.34.13(a), a Market Participant must provide AEMO with updated Standing Data as soon as practicable if requested by AEMO under paragraph 5.1.3.
- 5.1.5. If AEMO considers as part of its assessment under paragraph 5.1.2(b) that the inputs to the Dispatch Algorithm do not accurately reflect the capability of the relevant Registered Facility, AEMO may adjust those inputs in accordance with clause 7.10.9(a).
- 5.1.6. AEMO must consult with the relevant Market Participant prior to adjusting any inputs to the Dispatch Algorithm for the relevant Registered Facility under clause 7.10.9(a).

6. Assessment of ESR interaction with a Semi-Scheduled Facility's output

E[A] Examples of inconclusive evidence of compliance

Clause 7.10.4 requires that, if a Semi-Scheduled Facility contains an Electric Storage Resource, a Market Participant must not operate the Electric Storage Resource to increase the deviation of the Semi-Scheduled Facility's Injection or Withdrawal from the Semi-Scheduled Facility's Dispatch Forecast, unless the deviation is:

- (a) instructed as part of the delivery of one or more Essential System Services;
- (b) to provide a required response as part of the Facility's Registered Generator Performance Standard; or
- (c) required to comply with a direction issued by AEMO.

Except in instances where subclauses 7.10.4(a)-(c) apply, these scenarios are prohibited under clause 7.10.4:

- (a) A Semi-Scheduled Facility is forecast to Inject 50 MW, and the Intermittent Generating System is Injecting 50 MW. The Electric Storage Resource then Injects a further 20 MW to result in total Injection of 70 MW.
- (b) A Semi-Scheduled Facility is forecast to Inject 50 MW, and the Intermittent Generation System is Injecting 50 MW. The Electric Storage Resource then Withdraws 20 MW to result in total Injection of 30 MW.

These scenarios are permitted under clause 7.10.4:

- (a) A Semi-Scheduled Facility is forecast to Inject 50 MW, but the Intermittent Generation System is Injecting 70 MW. The Electric Storage Resource then Withdraws 20 MW to result in total Injection of 50 MW.
- (b) A Semi-Scheduled Facility is forecast to Inject 50 MW, but the Intermittent Generation System is Injecting 30 MW. The Electric Storage Resource then Injects 20 MW to result in total Injection of 50 MW.

6.1.1. The method for calculating an Electric Storage Resource's contribution to the relevant Semi-Scheduled Facility's deviation from its Dispatch Forecast for the purposes of clause 7.10.4 is to:

- (a) identify the Semi-Scheduled Facility's deviation from its Dispatch Forecast by:
 - (i) identifying the Injection or Withdrawal of the Semi-Scheduled Facility at the end of the relevant Dispatch Interval;
 - (ii) comparing that value to the Semi-Scheduled Facility's Dispatch Forecast;
- (b) identify the Semi-Scheduled Facility's deviation from its Dispatch Forecast excluding the Electric Storage Resource component by:
 - (i) identifying the Injection or Withdrawal of the Semi-Scheduled Facility excluding the Electric Storage Resource component at the end of the relevant Dispatch Interval; and

- (ii) comparing that value to the Semi-Scheduled Facility's Dispatch Forecast.
- (c) comparing the value calculated under paragraph 6.1.1(a) to the value calculated under paragraph 6.1.1(b).

Appendix A. Relevant clauses of the WEM Rules

Table 3 details:

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

Table 3 Relevant clauses of the WEM Rules

Clause
2.13.19(a)
2.13.19(b)
7.10.5
7.10.21(a)
2.15.4(b)