



WHOLESALE ELECTRICITY MARKET

CONSULTATION PAPER: PROPOSED TOLERANCE RANGE

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EXECUTIVE SUMMARY

The publication of this consultation paper and accompanying call for submissions commences the consultation process conducted by AEMO to consider a proposed Tolerance Range under the Wholesale Electricity Market Rules (WEM Rules). As a consequence of the proposed Tolerance Range, AEMO intends not to renew any existing Facility Tolerance Ranges.

The proposed Tolerance Range is required by clauses 2.13.6D, 2.13.6E, and 2.13.6G of the WEM Rules, which require AEMO to review the Tolerance Range and any Facility Tolerance Ranges at least annually, and vary the Tolerance Range and any Facility Tolerance Ranges following this review, if required.

The consultation documents, including this paper, are available at:

http://www.aemo.com.au/Stakeholder-Consultation/Consultations/TR_2018_01.

AEMO invites Rule Participants and other interested parties to submit written responses on the proposed Tolerance Range and intention not to renew any existing Facility Tolerance Ranges by 5.00 pm Australian Western Standard Time (AWST) on 8 June 2018, in accordance with the call for submissions published with this consultation paper.



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1. CONSULTATION PAPER

Clause 2.13 of the WEM Rules outlines the requirements for WEM Rule compliance monitoring and enforcement with respect to the Tolerance Range and any Facility Tolerance Ranges.

Clause 2.13.6A requires AEMO to report any alleged breaches of the provisions of the WEM Rules referred to in clause 2.13.9, or of the Power System Operation Procedures (PSOP), to the Economic Regulation Authority in accordance with the Monitoring and Reporting Protocol developed by AEMO.

Clause 2.13.6G of the WEM Rules provides that:

System Management must review the Tolerance Range and any Facility Tolerance Ranges at least annually. System Management may vary the Tolerance Range and any Facility Tolerance Ranges following this review.

Clause 2.13.6D of the WEM Rules provides that:

System Management may determine the Tolerance Range to apply to all Facilities for the purpose of System Management's reporting of alleged breaches of clause 7.10.1 and section 3.21 to the Economic Regulation Authority under clause 2.13.6A. When determining the appropriate Tolerance Range to apply for all Market Participants, System Management must:

- (a) consult with Rule Participants prior to setting the Tolerance Range; and*
- (b) publish on the Market Web Site at least 14 Business Days prior to the date from which change to the Tolerance Range becomes effective, the following:*
 - i. all submissions received from Rule Participants;*
 - ii. the Tolerance Range; and*
 - iii. an effective date for the commencement of the Tolerance Range.*

Clause 2.13.6E of the WEM Rules provides that:

System Management may determine a Facility Tolerance Range to apply to a specific generation Facility. A Facility Tolerance Range will apply for a specific generation Facility in place of the Tolerance Range determined under clause 2.13.6D. When determining the Facility Tolerance Range to apply for the specific generation Facility, System Management must:

- (a) consult with Market Participants prior to setting the Facility Tolerance Range; and*
- (b) publish on the Market Web Site at least 14 Business Days prior to the date from which any changes to the Facility Tolerance Range become effective the following:*
 - i. the reasons for System Management's decision;*
 - ii. any submissions received from Market Participants;*
 - iii. the applicable Facility Tolerance Range; and*
 - iv. an effective date for the commencement of the applicable Facility Tolerance Range.*

AEMO may initiate the consultation process in respect of the Tolerance Range or any Facility Tolerance Range by developing a consultation paper. Rule Participants may notify AEMO if they consider that the Tolerance Range needs to be amended or replaced.

AEMO has published this consultation paper in accordance with clauses 2.13.6D and 2.13.6E of the WEM Rules.



AEMO's indicative timeline for this consultation is outlined below. Dates may be adjusted depending on the number and complexity of issues raised in submissions and any meetings with Rule Participants.

Process Stage	Indicative date
Consultation paper published	11 May 2018
Submissions due on consultation paper	8 June 2018
Determination paper published	26 June 2018
Proposed commencement of new Tolerance Range and Facility Tolerance Ranges	16 July 2018

The submissions due date has been set commensurate with the corresponding timeframe for the Procedure Change Process detailed in clause 2.10.2A of the WEM Rules. Prior to the submissions due date, Rule Participants may request a meeting with AEMO to discuss the issues and proposed changes raised in this consultation paper.

2. BACKGROUND

2.1 Context for this consultation

AEMO derived the current Tolerance Range from monitoring methodologies used in the National Electricity Market (NEM). This year, AEMO has reviewed the Tolerance Range in line with:

1. changing conditions in the South West Interconnected system (SWIS);
2. objectives set out in the Power System Operation Procedure: Tolerance Ranges¹; and
3. application to all Facilities as required by clause 2.13.6D of the WEM Rules.

3. PROPOSED TOLERANCE RANGE

3.1 Detail of the annual review of the Tolerance Range

AEMO has reviewed the Tolerance Range in line with the objectives set out in the Power System Operation Procedure: Tolerance Ranges, and has evaluated the Tolerance Range having regard to:

- (a) the degree of compliance with Dispatch Instructions and Operating Instructions that is required to ensure the SWIS operates in a secure and reliable manner;
- (b) the degree of costs imposed on Market Participants as a result of AEMO's monitoring of compliance with Dispatch Instructions and Operating Instructions; and
- (c) the degree of operational impost on Market Participants for non-significant deviations.

The outcome of AEMO's review is:

1. the existing formula remains, in general, appropriate to the SWIS;
2. the formula is applicable to Scheduled Generators;

¹ This Procedure is located at https://www.aemo.com.au/-/media/Files/Stakeholder_Consultation/Consultations/WA_WEM_Consultation_Documents/2018/AEPC_2018_02/Final/PSOP-Tolerance-Ranges-clean.pdf.



3. the formula is applicable to Non-Scheduled Generators with some modification. Specifically, as Dispatch Instructions to Non-Scheduled Generators require those Facilities to operate below a given level, the Tolerance Range should only apply above that level. In addition:
 - (a) the WEM Rules only specify a ramp-down rate for Non-Scheduled Generators (for Standing Data purposes) **[Appendix 1(e)(iii)]**, the rate of change value in the formula should not apply.
 - (b) Non-Scheduled Generators are electronically controlled, and their controllability is independent to their size, and as such the Nameplate Capacity value in the formula should not apply.
4. in applying the formula to Non-Scheduled Generators, AEMO intends not to renew any existing Facility Tolerance Ranges;
5. the formula principles are applicable to Demand Side Programmes in a similar form as to Non-Scheduled Generators. Specifically, as Dispatch Instructions to Demand Side Programmes require the Facility to reduce consumption by at least a given amount, the Tolerance Range should only apply to a reduction less than that required, and the Tolerance Range should relate to the maximum amount of load able to be curtailed. In addition, the rate of change value in the formula should not apply; and
6. all other Facility Classes do not require a Tolerance Range greater than zero.

3.2 Proposed Tolerance Range

AEMO proposes the following Tolerance Range:

- (a) For Scheduled Generators, the Tolerance Range will be:

$$TR (MW) = (+/-) \text{ MAX } (6, \text{ MIN } [5\% \text{ NPC}, 4*RR])$$

Where:

- *NPC* is the nameplate capacity of the Scheduled Generator, expressed in MW, using the value set in Standing Data **[Appendix 1(b)(ii)]**; and
- *RR* is the ramp rate of the Scheduled Generator, expressed in MW/min, using the value set in Standing Data **[Appendix 1(b)(v)]**.

- (b) For Non-Scheduled Generators, the Tolerance Range will be:

$$TR (MW) = (+) 6$$

- (c) For Demand Side Programmes, the Tolerance Range will be:

$$TR (MW) = (+) \text{ MAX } (6, 5\% \text{ MCL})$$

Where:

- *MCL* is the maximum amount of load that can be curtailed by the Demand Side Programme, expressed in MW, using the value set in Standing Data **[Appendix 1(h)(iii)]**.

- (d) For all other Facilities:

$$TR (MW) = 0$$



4. FACILITY TOLERANCE RANGES

Under clause 2.13.6E of the WEM Rules, AEMO may determine a Facility Tolerance Range to apply to a specific generation Facility in place of the Tolerance Range. Clause 2.13.6G of the WEM Rules requires AEMO to review any Facility Tolerance Ranges at least annually.

At the request of Market Participants, AEMO previously applied Facility Tolerance Ranges to two Non-Scheduled Generators, as the Tolerance Range at the time did not apply to this Facility Class.

As a consequence of the Tolerance Range proposed in section 3.2(b):

1. all current Facility Tolerance Ranges will not be renewed in line with clause 2.13.6E of the WEM Rules, which requires that a Facility Tolerance Range only apply for a specific generation Facility in place of the Tolerance Range; and
2. the two Facilities affected by this change will have their respective Tolerance Range calculated in accordance with section 3.2(b).

AEMO does not propose to apply any Facility Tolerance Ranges.

5. CONSULTATION PROCESS

AEMO invites Rule Participants and other interested parties to submit written responses on the proposed Tolerance Range and intention not to renew any existing Facility Tolerance Ranges by 5.00 pm (AWST) on 8 June 2018, in accordance with the call for submissions published with this paper.

Rule Participants with questions in relation to this consultation paper can contact AEMO via email at wa@aemo.com.au.

All correspondence in relation to this consultation paper must be entitled "TR_2018_01 Tolerance Ranges - [Name of the submitting company or individual]".