

Proposed Amending Rules to the Wholesale Electricity Market - Tranche 4B

Western Power Submission

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Western Power welcomes the opportunity to respond to Energy Policy WA (EPWA) on the proposed Amending Rules to the Wholesale Electricity Market (WEM) Rules – Tranche 4B (Proposed Amendments). Instead of providing responses to each of the Proposed Amendments, Western Power is providing comments based on subject areas of the Proposed Amendments.

Western Power is generally supportive of the Proposed Amendments and have made comments to specific clauses of the WEM Rules that will in our opinion need further amendments. Western Power's suggested changes to the Proposed Amendments are in ***bold, italics and underline***. Please note that in reviewing the Proposed Amendments, we have only considered matters that are relevant to the Network Operator.

Western Power notes that the Proposed Amendments require the Under Frequency Load Shedding (UFLS) Requirements and UFLS Specifications documents to be developed to capture further details on the matters covered in the Proposed Amendments, which will include further obligations that will be imposed on the Network Operator. As the documents referred to in the Proposed Amendments have yet to be developed, Western Power has not been able to consider the details under the documents in its review of the Proposed Amendments.

1.1 Under Frequency Load Shedding

Explanatory Note – Proposed Amendments:

Replacement section 3.6 is tentatively proposed to commence on 1 December 2021.

Western Power response:

As discussed with EPWA, Western Power is supportive of EPWA's plans to amend the proposed commencement date, for section 3.6 of the Proposed Amendments and the UFLS Requirements and UFLS Specifications documents, from 1 December 2021 to 1 March 2022. Western Power is of the view that this will provide AEMO and Western Power with sufficient time to prepare and agree on the UFLS Requirements and UFLS Specifications documents.

Additionally, Western Power is of the view that the UFLS Requirements and UFLS Specifications documents should set out the process that AEMO and Western Power will undertake when reviewing, agreeing and publishing the documents.

Clause 3.6.2 – Proposed Amendments:

The UFLS Requirements document must include guidance for a Network Operator to design and implement automatic under frequency load shedding schemes that support Power System Security. These items include but are not limited to:

- (a) the quantity of load required for shedding, or guidance on how to determine the required quantities;*
- (b) prioritisation of load types;*
- (c) details of any staging requirements;*
- (d) initiation criteria;*
- (e) speed of operation;*
- (f) any required variation in settings or functional requirements based on system conditions; and*
- (g) any other relevant matters required to support Power System Security.*

Western Power response:

To make the obligation clearer, Western Power suggests the following minor amendments under clause 3.6.2:

The UFLS Requirements document must include guidance for a Network Operator to design and implement automatic under frequency load shedding schemes that support Power System Security.

~~*These items*~~ *This document may include but ~~are~~ is not limited to:*

- (a) the quantity of load required for shedding, or guidance on how to determine the required quantities;*
- (b) prioritisation of load types;*
- (c) details of any staging requirements;*
- (d) initiation criteria;*
- (e) speed of operation **of the scheme**;*
- (f) any required variation in settings or functional requirements based on system conditions; and*
- (g) any other relevant matters required to support Power System Security.*

Clause 3.6.3 – Proposed Amendments:

AEMO must consult in good faith with each impacted Network Operator when it develops, and each time it reviews, the UFLS Requirements document.

Western Power response:

Western Power is of the view that AEMO must obtain Western Power's agreement prior to publishing the first version of the UFLS Requirements document. Therefore, Western Power suggests the following amendments under clause 3.6.3:

~~*AEMO must consult in good faith with each impacted Network Operator when it develops, and each time it reviews, the UFLS Requirements document. The UFLS Requirements document shall be prepared by AEMO and agreed with the Network Operator prior to publication. Each subsequent review or amendment of the UFLS Requirements document shall be agreed with the Network Operator prior to publication.*~~

Clause 3.6.4 – Proposed Amendments:

If for any reason, either AEMO or a Network Operator proposes an amendment to the UFLS Requirements document, the relevant entity must consult in good faith with the other entity and AEMO must only progress the amendment if both entities agree such amendment is reasonably necessary.

Western Power response:

To make the obligation clearer, Western Power suggests the following amendments under clause 3.6.4:

If for any reason, either AEMO or a Network Operator proposes an amendment to the UFLS Requirements document:

- (a) **the** relevant entity must consult in good faith with the other entity; **and***
- (b) **any review or amendment to the UFLS Requirements document must be:***

(i) reasonable in their scope and application; and

(ii) agreed with AEMO and the Network Operator.

~~the relevant entity must consult in good faith with the other entity and AEMO must only progress the amendment if both entities agree such amendment is reasonably necessary.~~

Clause 3.6.5 – Proposed Amendments:

AEMO must publish the UFLS Requirements document, and any amendments to it, on the WEM Website.

Western Power response:

For further clarity, Western Power suggests the following minor amendments under clause 3.6.5:

Following their agreement with a Network Operator in accordance with clauses 3.6.3 and 3.6.4,
AEMO must publish the UFLS Requirements document, and any amendments to it, on the WEM Website.

Clause 3.6.7 – Proposed Amendments:

Each Network Operator's UFLS Specification document must be submitted to AEMO for review, including when changes are initiated by the Network Operator, or as a result of a change to the UFLS Requirements document.

Western Power response:

To make the obligation clearer, Western Power suggests the following minor amendments under clause 3.6.7:

*Each Network Operator's UFLS Specifications document must be submitted to AEMO for review, **either including** when changes are initiated by the Network Operator, or **if they are necessitated** as a result of a **change review or amendment** to the UFLS Requirements document.*

Clause 3.6.9 – Proposed Amendments:

Each Network Operator must implement and maintain schemes in accordance with its UFLS Specification document, and must agree a timeframe with AEMO for changes to its schemes triggered by any changes to its UFLS Specification document.

Western Power response:

To make the obligation clearer, Western Power suggests the following minor amendments under clause 3.6.9:

*Each Network Operator must implement and maintain schemes in accordance with its UFLS Specifications document, and must **use reasonable endeavours to** agree a timeframe with AEMO for changes to its **systems, schemes or standards** triggered by any changes to its UFLS Specification document.*

Clause 3.6.10 – Proposed Amendments:

Each Network Operator must report to AEMO on the compliance of its schemes with the UFLS Specification, and performance in meeting the UFLS Requirements:

- (a) annually, on the projected ability to meet the requirements over a future ten-year horizon; and
- (b) within an agreed timeframe with AEMO, following each under frequency load shedding event.

Western Power response:

Western Power understands that it will report to AEMO on the compliance of its UFLS performance and that the details, format and timing of the reporting will be determined by Western Power. For further clarity, Western Power suggests the following amendments under clause 3.6.10:

*Each Network Operator **will determine in its own discretion the manner and timing of how it monitors and reports must report** to AEMO **on** the compliance of its **systems, schemes or standards** with the UFLS Specifications, ~~and performance in meeting the UFLS Requirements:~~*

- (a) annually, on the projected ability to meet the requirements over a future ten-year horizon; and
- (b) within an agreed timeframe with AEMO, following each under frequency load shedding event.

Definition of UFLS Specification – Proposed Amendments:

means the document referred to in clause 3.6.6 containing the design specification of a Network Operator's under frequency load shedding system demonstrating compliance with the functional requirements specified in the UFLS Requirements document.

Western Power response:

Western Power suggests that the term 'UFLS Specification' be referred to 'UFLS Specifications' and that the following amendments be made to the definition:

*means the **functional requirements for the SWIS under frequency load shedding system as set out in the** document referred to in clause 3.6.1 ~~containing the functional requirements for the SWIS under frequency load shedding system~~, and any future **planned reviews or** amendments ~~or modifications~~ to those functional requirements.*

Status of UFLS Requirements and UFLS Specifications document:

As the UFLS Requirements and Specifications documents are not intended to be WEM Procedures under the WEM Rules, Western Power is of the view that the documents should not be subject to the compliance monitoring and enforcement framework obligations under Chapter 2 of the WEM Rules. Western Power suggests that further clarification is required under section 3.6 of the Proposed Amendments to reflect this.

1.2 Change Management Framework for WEM Technical Standards

References to 'Western Power' – Proposed Amendments:

For consistency, Western Power considers that all references to 'Western Power' under the Change Management Framework for WEM Technical Standards of the Proposed Amendments be amended to 'Network Operator'. This is in line with the referencing used in the current WEM Rules.

Clause 2.4.3B – Proposed Amendments:

Where the Coordinator considers that making Amending Rules will affect a WEM Technical Standard, the Coordinator must request advice and/or information from AEMO and/or Western Power to assist in assessing the relevant Rule Change Proposal. The following applies to the request:

- (a) *The Coordinator must consult AEMO and/or Western Power, as applicable, on the requirements and the timeframes applicable to the request; and*
- (b) *The Coordinator may, at her or his discretion, require AEMO and Western Power to provide advice jointly or independently.*

Western Power response:

Western Power suggests the following minor amendments under clause 2.4.3B:

Where the Coordinator considers that making Amending Rules will affect a WEM Technical Standard, the Coordinator must request advice and/or information from AEMO and/or Western Power to assist in assessing the relevant Rule Change Proposal. The following applies to the request:

- (a) *The Coordinator must consult AEMO and/or ~~Western Power~~ **the Network Operator**, as applicable, on the requirements and the timeframes applicable to the request; and*
- (b) *The Coordinator may, at her or his discretion, require AEMO and ~~Western Power~~ **the Network Operator** to provide advice from time to time jointly or independently.*

Clause 2.4.3D – Proposed Amendments:

Where AEMO and/or Western Power require a longer timeframe to provide the advice requested by the Coordinator under clause 2.4.3B, AEMO and/or Western Power:

- (a) *may seek an extension to the timeframe; and*
- (b) *must outline the reasons for seeking the extension.*

Western Power response:

To make the obligation clearer, Western Power suggests the following amendments under clause 2.4.3D:

*Where AEMO and/or ~~Western Power~~ **the Network Operator** require a longer timeframe to provide the advice requested by the Coordinator under clause 2.4.3B, AEMO and/or ~~Western Power~~ **the Network Operator**:*

- (a) *may seek an extension to the timeframe; and*
- (b) *must outline the reasons for seeking the extension.*

and provided that the period of and the reasons for the extension are reasonable, the Coordinator will grant an extension to the timeframe.

1.3 Amendments to Appendix 12: Generator Performance Standards

Table A12.4.2.11: Synchronous Generating Unit Excitation Control System performance requirements

Western Power response:

For further clarity, Western Power suggests the following insertion to the notes section of Table A12.4.2.11:

Performance Item	Units	Static Excitation	AC exciter or rotating rectifier ²
Generating Unit Field voltage Rise Time: Time for field voltage to rise from rated field voltage ¹ to excitation ceiling voltage following the application of a short duration impulse to the voltage reference.	Second	0.05 maximum	0.5 maximum
Settling Time with the Generating Unit unsynchronised following a disturbance equivalent to a 5% step change in the sensed Generating Unit terminal voltage.	Second	1.5 maximum	2.5 maximum
Settling Time with the Generating Unit synchronised following a disturbance equivalent to a 5% step change in the sensed Generating Unit terminal voltage. It must be met at all operating points within the Generating Unit capability.	Second	2.5 maximum	5 maximum
Settling Time following any disturbance which causes an excitation limiter to operate.	Second	5 maximum	5 maximum
Notes: 1. rated field voltage is that voltage required to give nominal Generating Unit terminal voltage when the Generating Unit is operating at its Rated Maximum Apparent Power 2. <u>For rotating rectifier excitation system where the field voltage is not accessible for direct measurement, the main exciter field voltage must comply with this clause.</u>			

Additional paragraph A12.8.1 – Proposed Amendments:

Western Power response:

For clarity, Western Power suggests that the below additional paragraph A12.8.1.4 is added to the Proposed Amendments:

A12.8.1. Disturbance Ride Through (Voltage) - Common Requirements

A12.8.1.4. When evaluating the performance in this clause, unless otherwise stated, the smallest of the three line to line voltages shall be used for evaluating the undervoltage and the greatest of the line to line voltages shall be used for voltage increase ride through.

1.4 Aligning the electric storage constraints opt-in process for storage facilities with the RCM

Clause 4.14.1 – Proposed Amendments:

Subject to clause 4.14.3, each Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle must, by the date and time specified in clause 4.1.14 provide the following information to AEMO for each Facility and component of a Facility (expressed in MW to a precision of 0.001 MW):

Western Power response:

To maintain consistency with the terminology used in the WEM Rules, Western Power suggests the following amendments under clause 4.14.1:

*Subject to clause 4.14.3, each Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle must, by the date and time specified in clause 4.1.14 provide the following information to AEMO for each Facility and ~~component of a Facility~~ **Separately Certified Component** (expressed in MW to a precision of 0.001 MW):*

Clause 4.20.17 – Proposed Amendments:

Where AEMO has assigned Capacity Credits to a Facility for a Capacity Year, AEMO must set the number of Capacity Credits to be associated with each component of the Facility for the Capacity Year as:

(a) the number of Capacity Credits the Market Participant nominated to trade bilaterally under clause 4.14.1; or

(b) where clause 4.20.16 applies, the number of Capacity Credits notified to AEMO under that clause to be associated with each component of the Facility.

Western Power response:

To maintain consistency with the terminology used in the WEM Rules, Western Power suggests the following amendments under clause 4.20.17:

*Where AEMO has assigned Capacity Credits to a Facility for a Capacity Year, AEMO must set the number of Capacity Credits to be associated with each ~~component~~ **Separately Certified Component** of the Facility for the Capacity Year as:*

(a) the number of Capacity Credits the Market Participant nominated to trade bilaterally under clause 4.14.1; or

*(b) where clause 4.20.16 applies, the number of Capacity Credits notified to AEMO under that clause to be associated with each ~~component of the Facility~~ **Separately Certified Component**.*