



WEMS 3.35 Release Notes

April 2020

Important notice

PURPOSE

The Australian Energy Market Operator (AEMO) has prepared this document to provide information about the Wholesale Electricity Market System (WEMS) 3.35 (Build 3.35-1513-2) release as at the date of publication.

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VERSION CONTROL

Version	Release date	Changes
1.0	08/04/2020	Initial Publication for WEMS 3.35 Market Trial Release
1.1	28/04/2020	Added section "Updated Balancing Reports Web Service"

DOCUMENT APPROVAL

Name	Position	Date
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1. Introduction

1.1 Overview

These are the release notes for Wholesale Electricity Market System (WEMS) 3.35 (Build 3.35-1513-2).

This WEMS release includes:

- Automated publication of LFAS Data to the Public Data Site;
- User management improvements; and,
- A number of minor technical changes.

The system changes under this release are described in the sections below.

1.2 Supporting documentation

The following documents have been updated for this release and should be read in conjunction with these release notes:

- WEMS Report and Web Service Specifications¹

1.3 WEMS version summary

Table 1 summarises the changes in version post deployment of this release.

Table 1 WEMS Version Summary

Application	Current version	New version
WEMS	3.34 (Build 3.34-1509-1)	3.35 (Build 3.35-1513-2)

To view the current version of MPI, please navigate to Help > About in the MPI.

1.4 Abbreviations

Table 2 outlines the abbreviations used in this document.

Table 2 Abbreviations

Abbreviation	Expanded name
AEMO	Australian Energy Market Operator
BMO	Balancing Merit Order
MOSMI	Market Operator System Monitoring Interface
MPI	Market Participant Interface
PDS	Public Data Site
PCS	Product Configuration Specification

¹ https://aemo.com.au/-/media/files/electricity/wem/participant_information/guides-and-useful-information/3-aemo--wems-report-specification.pdf?la=en&hash=F7D553B2218E95DE0DF4173082B20B73

Abbreviation	Expanded name
SQL	Structured Query Language
WEMS	Wholesale Electricity Market System

1.5 Status legend

Table 3 outlines the issue statuses used in this document.

Table 3 Status Legend

Status
● Internal changes
● Minimal or no impact to Market Participants
● Needs Market Participants' attention. Potentially requires system or operational procedure changes.

2. Automated Publication of LFAS Data

Information that is classified as Public in the WEM Rules required AEMO to make this information available. When requested and technically efficient to do so, AEMO updates the Market Web Site with Public data.

As such:

- WEM Rule 10.5.1(iB) - LFAS Summary Information for each Trading Interval in each completed Trading Day in the previous 12 months:
 - i. the Downwards LFAS Merit Order;
 - ii. the Upwards LFAS Merit Order;
 - iii. where available, the Upwards LFAS Quantity and the Downwards LFAS Quantity; and
 - iv. where available, the Upwards LFAS Price and the Downwards LFAS Price;
- WEM Rule 10.5.1(iC) - LFAS Submission Information for each Trading Interval in each completed Trading Day in the previous 12 calendar months, before the end of the seventh day from the start of the Trading Day.

In this release of the WEMS, this information will now be automatically published to the AEMO Public Data website².

A new section will be added to the AEMO Public Data website for both the LFAS Summary (Figure 1) and LFAS Submission (Figure 2) data. Historical data dating back to 2012 will be available and each individual file will contain 12 months of data.

LFAS MARKET SUMMARY

The Load Following Ancillary Service (LFAS) is the service of frequently adjusting output of one or more Scheduled Generators or Non-Scheduled Generators within a Trading Interval so as to match total system generation to total system load in real time, in order to correct any SWIS frequency deviations. AEMO determines the Upwards LFAS Merit Order and Downwards LFAS Merit Order using the most recent valid LFAS Submissions available to it for each Trading Interval. The LFAS Market has been operating since 1 July 2012.

This information is provided under *Market Rule 10.5.1(iB)*.

Update frequency: Daily; updated at 23:30 WST

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[2020](#)
 [2019](#)

Field Definitions (V1) [Expand all](#) [Collapse all](#) [Download](#)

> Trading Date	YYYY-MM-DD
> Interval Number	1..48
> Trading Interval	YYYY-MM-DD HH:MM:SS
> Participant Code	String
> Facility Code	String
> Submitted Price (\$/MW)	\$/MW
> Submitted Quantity (MW)	MW
> LFAS Type	UP or DOWN
> Extracted At	YYYY-MM-DD HH:MM:SS

Figure 1 LFAS Market Summary

² <http://data.wa.aemo.com.au/>

LFAS SUBMISSIONS

The Load Following Ancillary Service (LFAS) is the service of frequently adjusting output of one or more Scheduled Generators or Non-Scheduled Generators within a Trading Interval so as to match total system generation to total system load in real time, in order to correct any SWIS frequency deviations. AEMO determines the Upwards LFAS Merit Order and Downwards LFAS Merit Order using the most recent valid LFAS Submissions (Effective) available to it for each Trading Interval. The LFAS Market has been operating since 1 July 2012.

An LFAS Submission means, for an LFAS Facility or the Balancing Portfolio, for a Trading Interval or Trading Intervals, a ranking of LFAS Price-Quantity Pairs for each MW of capacity which the Market Participant wants to offer for LFAS for each Trading Interval.

This information is provided under *Market Rule 10.5.1(iC)*.

Update frequency: Daily; updated at 07:00 WST for 7 trading days prior

Jump to:

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> Trading Date	YYYY-MM-DD
> From Trading Interval	YYYY-MM-DD HH:MM:SS
> To Trading Interval	YYYY-MM-DD HH:MM:SS
> Submitted At	YYYY-MM-DD HH:MM:SS
> Participant Code	String
> Facility Code	String
> LFAS Type	UP or DOWN
> Submission Type	Standing or Variation
> Action	SUBMIT or CANCEL
> Submitted Price (\$/MW)	\$/MW
> Submitted Quantity (MW)	MW
> Extracted At	YYYY-MM-DD HH:MM:SS

Figure 2 LFAS Submissions

Details of the report fields can be found on the AEMO Public Data website, within the 'Field Definitions' section as seen in Figure 1 and Figure 2. These data set will be updated in line with the timelines detailed in Table 4 below.

Table 4 LFAS Data Publication Times

Data Set	LFAS Summary Information [WEM Rule 10.5.1(iB)]	LFAS Submission Information [WEM Rule 10.5.1(iC)]
Publication Time	Update daily; at 23:30 WST for Trading Day D-1 ³	Update daily; at 07:00 WST for Trading Day D-7

³ Where day D is the current WEM Trading Day

3. User Management Improvements

A WEMS MPI user with 'User Management' privileges may disable a user account connected to their Market Participant account. When that user attempts to access MPI an error message is displayed. Based on Market Participant feedback the existing error message has been updated to be more informative and direct the user to contact the AEMO Market Operations Team (Figure 3).

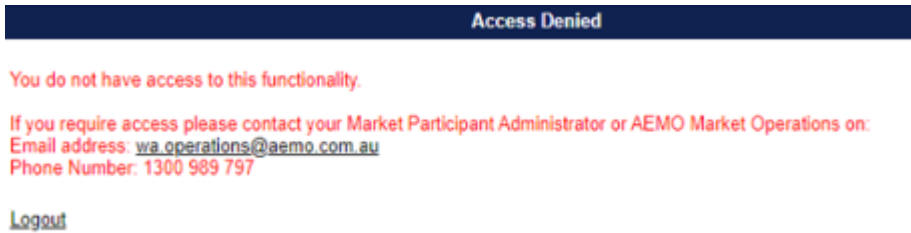


Figure 3 Disabled User Error Message

Further, a WEMS MPI user with 'User Management' privileges may create a new user account, or edit an existing user account, connected to their Market Participant account. A number of validations are currently present to ensure mandatory fields are completed. Based on feedback from Market Participants, AEMO has improved the email validation functionality (Figure 4).

Detail

Invalid Username - Please use only numerics, letters, or underscore (_)
Username *

Invalid Given Name - Please use only letters a-z, numbers, spaces or hyphens (-)
Given Name *

Invalid Last Name - Please use only letters a-z, numbers, spaces or hyphens (-)
Last Name *

RSA Token

Enabled

Locked

Invalid Position - Please use only letters a-z, numbers, hyphens(-), space or dots (.)
Position *

Please select a participant
Participant *

Roles	Full Access	Read Only
Energy Market	<input type="checkbox"/>	<input type="checkbox"/>
Reserve Capacity	<input type="checkbox"/>	<input type="checkbox"/>
Reports	<input type="checkbox"/>	<input type="checkbox"/>
Registration	<input type="checkbox"/>	<input type="checkbox"/>
Settlements	<input type="checkbox"/>	<input type="checkbox"/>
Balancing	<input type="checkbox"/>	<input type="checkbox"/>
User Management	<input type="checkbox"/>	<input type="checkbox"/>
Reserve Capacity Certification	<input type="checkbox"/>	<input type="checkbox"/>

Address

City

State

Country

Post Code

Please enter either a Phone or Mobile Number
Post Code

Phone *

Facsimile

Mobile *

Please enter a valid email address
Email *

No secret question selected (hover to reveal)

Figure 4 User Information Validation Fields

4. Updated Balancing Reports Web Service

AEMO has updated the web service URL of the Balancing Reports to version 2.4, the new URL is:

<https://wems.aemo.com.au/mpi/ws/balancing/v2.4?wsdl>

The update is required to support a future WEMS release and no Market Participant action is required. Using this web service will return the same result as version 2.3 at this stage.

5. Resolved issues

In addition to the functionality above, the following issues have been resolved in this release.

Table 5 Resolved Issues

Reference	Summary	Resolution
● WEMS-7041	When Forecast Load is greater than Forecast NSG the Balancing Prices web service call will fail and return an error message.	Restructure the calculation performed in the background when the Balancing prices web service is called to ensure accurate data is returned.
● DATA-69	Missing Facility SCADA EOI values on the public data site. These values were missing for several intervals across April-18, June-18, May-19 and July-19	SCADA EOI Data has been uploaded for the intervals where it was missing.
● DATA-59	The Independent Market Operator (IMO) was still listed as a Rule Participant on the Participants section of the public data site.	The IMO has been removed as they are no longer a Rule Participant.
● DATA-60	On the public data site, the report description text for 'Update Frequency' uses WST as the standardised time zone, except for the TT30GEN report which uses AWST.	For consistency, the TT30GEN report will now use WST in description text for 'Update Frequency'.

Additional AEMO functionality has been introduced to complement the changes seen by Market Participants. This functionality is primarily in relation to the monitoring and alerting application MOSMI. These changes ensure AEMO can effectively managed its obligations to Market Participants as detailed in the WEM and GBB Participant Support Guide⁴.

⁴ Available on Participant Information section of the AEMO website <http://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Participant-information/Guides-and-useful-information>