



WEMS 3.36 Release Notes

August 2020

Important notice

PURPOSE

The Australian Energy Market Operator (AEMO) has prepared this document to provide information about the Wholesale Electricity Market System (WEMS) 3.36 (Build 3.36-1529-2) release as at the date of publication.

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VERSION CONTROL

Version	Release date	Changes
1.0	19/08/2020	Initial Publication for WEMS 3.36 Market Trial Release
1.1	19/08/2020	Update to final build numbers
2.0	26/08/2020	Table 4 – STEM Service Key Dates omitted due to rescheduling

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) 3.36 (Build 3.36-1529-2).

This WEMS release includes:

- New web services to return IRCR PIRs and Logs in CSV format;
- Improvements to the WEM Data Dashboard -> Fuel Mix visualisation; and
- Replacement of the codebase for the STEM (no expected Market Participant impact).

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

1.2 Supporting documentation

No supporting documentation has been updated as part of this release.

1.3 WEMS version summary

Table 1 summarises the changes in version for this release.

Table 1 WEMS Version Summary

Application	Current version	New version
WEMS	3.35 (Build 3.35-1513-1)	3.36 (Build 3.36-1529-2)

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
API	Application Programming Interface
BMO	Balancing Merit Order
CRC	Certified Reserve Capacity
MOSMI	Market Operator System Monitoring Interface
MPI	Market Participant Interface
PDS	Public Data Site
PCS	Product Configuration Specification
POE	Probability of Exceedance
STEM	Short Term Energy Market

Abbreviation	Expanded name
SQL	Structured Query Language
TRAM	Technology Reference Architecture Model
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. IRCR PIR and Log in CSV Format

Market Participants have requested a new Web Service that returns IRCR PIR and IRCR Log documents in CSV format; the current documentation only returns JSON.

Two new Web Services have been created to allow the download of IRCR PIRs in CSV format:

- /api/vq/CapacityYears/{capacityYearID}/Ircr/{tradingMonth}/Files/Log
- /api/vq/CapacityYears/{capacityYearID}/Ircr/{tradingMonth}/Files/Pir

These API calls will be included in the Swagger¹ documentation for use by Market Participants.

The image shows two side-by-side Swagger API documentation pages. The left page is for the endpoint `/api/v1/CapacityYears/{capacityYearId}/Ircr/{tradingMonth}/Files/Pir` and the right page is for `/api/v1/CapacityYears/{capacityYearId}/Ircr/{tradingMonth}/Files/Log`. Both pages have a blue header and contain the following sections:

- Implementation Notes:** This method returns published IRCR PIR report data in csv format. Only data relating to the requesting Market Participant are returned. Note: This method is only available from Trading Month June 2019 (with the implementation of Rule Change RC_2017_06).
- Parameters:** A table with columns: Parameter, Value, Description, Parameter Type, Data Type.
 - `capacityYearId`: Value: 2018, Description: The capacity year id (e.g. 2017), Parameter Type: path, Data Type: integer.
 - `tradingMonth`: Value: NOV, Description: The trading month for the amendment requests (format: "MMM" e.g. "OCT", "AUG")
 - `participantId`: Value: [redacted], Description: (optional) This is automatically populated from the authenticated certificate, Parameter Type: query, Data Type: string.
 - `Ircr-Type`: Value: Initial, Description: (required) The Ircr Run Type ie. 'Indicative', 'Initial', 'Adjustment1', 'Adjustment2', 'Adjustment3', Parameter Type: query, Data Type: string.
- Response Messages:** A table with columns: HTTP Status Code, Reason, Response Model, Headers.
 - 400: Bad Request
 - 403: Forbidden
 - 404: Not Found

Figure 1 New IRCR PIR and Log web service documentation

3. WEM Data Dashboard Fuel Mix Visualisation Improvement

The Fuel Mix visualisation on the WEM Data Dashboard² currently uses STEM submissions to determine a Facilities fuel type; this was a legacy implementation that resulted in an incorrect value of "Distillate" fuel type being reported.

This release changes the visualisation to use the Balancing Merit Order to determine the type of fuel a Facility is running on during a given Trading Interval.

¹ <https://wems.aemo.com.au/rcm/api/docs/>

² <https://www.aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/data-wem/data-dashboard#pulse>

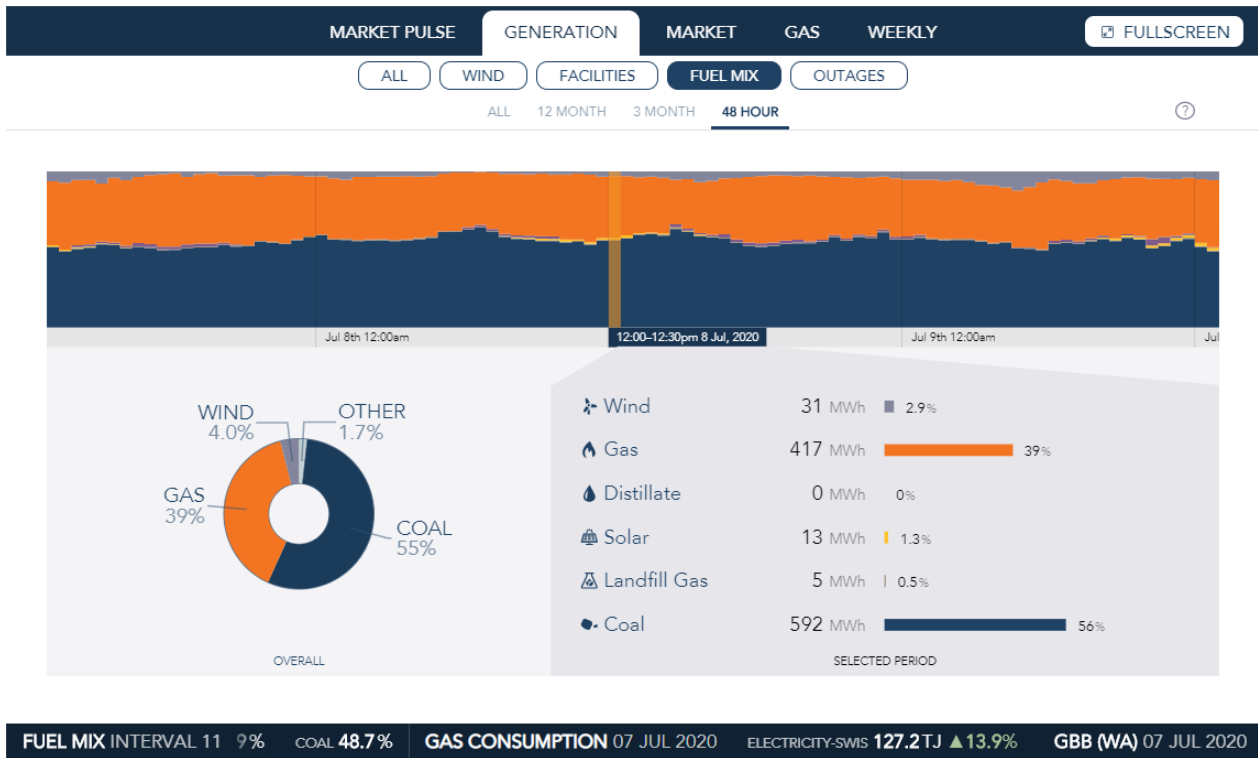


Figure 2 WEM Market Data website “Fuel Mix” visualisation

4. STEM Fortran Replacement

AEMO has developed a new STEM application (“STEM Service”) using a technology stack that aligns with AEMO’s TRAM. The updated application is strategically aligned, designed to modularise the system and futureproof for any required changes resulting from WEM reform. Having in-house capability to support the STEM means AEMO is better placed to modify systems efficiently in the future.

4.1 Market Participant Impact

Changes introduced have been restricted to the underlying code base.

There is no change to Market Participant-supplied inputs (Net Bilateral Position Submissions and Portfolio Supply/Demand Curve Submissions) and no change to formats or structure of participant outputs (Reports and screens in the WEMS MPI and via web services). There is no requirement to update existing STEM Standing Submissions due to this change.

Therefore, is no Market Participant impact anticipated as part of this release. Whilst there aren’t any specific tests recommended by AEMO, AEMO does encourage Market Participants to interact with the STEM Service during the Market Trial period to verify that there are no impacts.

The STEM Auction will be toggled to use the STEM Service in Market Trial and Production upon deployment; the toggle dates are detailed below:

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
● RCM-1676	When a Facility is upgraded, the Required Level calculation currently sums the 5% Probability of Exceedance (POE) values for the Parent Facility and the Upgrade. The combined value given in the Independent Expert Report should be used.	Restructure the calculation performed by RCM for Upgrades to use the 5% POE value from the Upgrade Facility only.
● WEMS-7127	The Dispatch Advisory (DA) web service ³ currently returns all DAs, even those outside the specific date range and in an incorrect ID order.	Restructure the web service to only return DAs within the specified date range and by ascending ID order.
● WEMS-7111	The LFAS > LFAS Schedules page in WEMS MPI allows an unlimited date range of data to be extracted.	Validate data extract requests to only allow a maximum of 2 days for "View" and 31 days for CSV or XML download.
● RCM-1748	CRC applications in MPI currently allow the submission of 'Requested CRC' quantity; this concept has been removed from the WEM Rules and Market Procedures.	Removal of this field from CRC applications screen.
● WEMS-7129	Unregistered Scheduled Generation serving Intermittent Loads are not currently factored into the Spinning Reserve Cost Share calculations.	Use SCADA values provided by System Management from Unregistered Scheduled Generation serving Intermittent Loads in the calculation of Spinning Reserve Cost Share. This is tied to several updates to the Settlement System that will be deployed in STL-3.4.37.

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 manage its obligations to Market Participants as detailed in the WEM and GBB Participant Support Guide⁴.

³ <https://wems.aemo.com.au/mpi/ws/sm/v2.5?wsdl>

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>