EMMS TECHNICAL SPECIFICATION - JUNE 2017

AEMO CHANGE NOTICE SERIES: EMMS062017

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AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

IMPORTANT NOTICE

Purpose & audience

This document describes the technical changes required to participant's systems for the EMMS Midyear Release 2017 (Release). AEMO provides this information as a service targeting business analysts and IT staff in participant organisations. It provides guidance about the changes to their market systems under the National Gas or Electricity Rules (Rules), as at the date of publication.

How to use this document

- If you have questions about the business aspects of these changes, please see Consultations on AEMO's website.
- Unless otherwise stated, you can find resources mentioned in this guide on AEMO's website.
- Text in this format indicates a reference to a document on AEMO's website.
- The references listed throughout this document are primary resources and take precedence over this document.
- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules and information or a term in this document, the Rules take precedence.
- Glossary Terms are capitalised and have the meanings listed against them, see Glossary on page iii.
- *Italicised terms* are defined in the Rules. Any rules terms not in this format still have the same meaning.

AEMO reference numbers

Included in each project heading is a Quality Centre Identifier (QCID) that provides useful tracking information. There may be none, one, or more QCIDs relevant to each project heading.

References to change notices are CN followed by the change notice number.

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Distribution

Available to the public.

Document Identification

Version: 2.01

Prepared by: AEMO Market Systems

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Version History

2.01 Changes to Baseline Assumptions for DBMS and Data Interchange software upgrade.

Documents made obsolete

The release of this document changes only the version of EMMS Technical Specification - June 2017.

Further Information

For further information, please visit AEMO's website www.aemo.com.au or contact:

AEMO Support Hub	Phone: 1300 AEMO 00 (1300 236 600) and follow the prompts.
	Email: supporthub@aemo.com.au

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CONTENTS

1 Wholesale Market System Projects 5
1.1 (P385) - Offsets in the Prudential Margin 5
1.2 (P1189) - Unbundling of Ancillary Services 6

2 Data Interchange 6
2.1 Software upgrade 6
2.2 New reports 6
2.3 Data Interchange software and guides 7
2.4 After deployment of this Release 7

3 Baseline Assumptions 8
3.1 Software 8
3.2 Data Interchange 8

4 Implementation 9
4.1 Approval or agreement to change 9
4.2 Transition 9
4.3 Implications 9
4.4 Upgrade options 9
4.5 What happens if I do not upgrade? 9

GLOSSARY

Abbreviations

Abbreviation	Explanation
DBMS	Database Management System
DSP	Demand Side Participation: Information *Registered Participants* must provide to *AEMO*. For more information, see the Demand side participation information guidelines in the NER, clause 3.7D.
MTPASA	Medium Term PASA
MW	Megawatt
NER	National Electricity Rules
PASA	Projected Assessment of System Availability

Abbreviation	Explanation
Release	EMMS Midyear Release 2017

Special terms

Term	Definition
Data Interchange (DI)	The set of cooperating applications to replicate data between AEMO's Wholesale Market Systems and a participant's RDBMS conforming to the Electricity and/or Gas Data Models
Data Model	Refers to the Electricity or Gas Data Models, which is the definition of the interface to participants for data published by AEMO
Energy market systems web portal (Web portal)	AEMO's Wholesale Market Management System; software, hardware, network and related processes to implement the wholesale energy market

1 WHOLESALE MARKET SYSTEM PROJECTS

The EMMS Midyear Release 2017 (Release) includes changes related to participants' IT systems. This technical specification describes the projects planned by AEMO from a participant perspective. AEMO provides this information as a service targeting business analysts and IT staff in participant organisations.

This Release contains the following projects:

1.1 (P385) - Offsets in the Prudential Margin 5

1.2 (P1189) - Unbundling of Ancillary Services 6

1.1 (P385) - Offsets in the Prudential Margin

1.1.1 Overview

This project supports future changes allowing reallocations to offset energy in the Prudential Margin (PM) for the Maximum Credit Limit (MCL) calculation and complies with the Credit Limit Procedures change commencing 20 October 2017.

For more information about the Procedure change, see http://www.aemo.com.au/Stakeholder-Consultation/Consultations/Credit-Limit-Procedures--Application-of-offsets-in-the-Prudential-Margin-calculation.

The technical changes in this release are preparation for this project only. There is no impact to participants for this Release. AEMO will provide further details and implementation dates for the functional changes later in the year.

1.1.2 Functional changes

Participants submit a PM Offset Agreement to Prudentials to opt-in to offset their energy (load and generation) amounts with reallocation (credit and debit) amounts in the PM calculation effective from the start of the summer 2018 season on 30 November 2017.

By default, participants are treated as opt-out, but for participants who have elected to opt-in for full offsets in the PM calculation the ex ante reallocation timetable is extended from seven to 14 business days.

The future change is a new interface in the EMMS web portal allowing participants to opt in or out to offset their energy amounts.

1.1.3 Electricity Data Model

There are no changes to the Data Model for this project.

1.2 (P1189) - Unbundling of Ancillary Services

1.2.1 Overview

This project enables *Market Participants* to take advantage of the *ancillary services* unbundling rule change, taking effect from 1 July 2017.

For information about the rule change, see http://www.aemc.gov.au/Rule-Changes/Demand-Response-Mechanism.

1.2.2 Functional changes

There is a new participant category called Market Ancillary Service Provider (MASP).

1.2.3 Electricity Data Model

The data model package PARTICIPANT_REGISTRATION contains the new MASP entry.

Participants do not need to make changes to their Data Model or Data Subscriptions to receive the new data to their DBMS.

2 DATA INTERCHANGE

2.1 Software upgrade

In a future release, AEMO will upgrade the Participant Batcher and Loader software from 7.3 to 7.4, to certify against:

- Java 8.
- Microsoft SQL Server 2014.

After deployment of the software upgrade, AEMO no longer supports Microsoft SQL Server 2008.

AEMO expects to release the Data Interchange software upgrade during 2017.

2.2 New reports

In preparation for the software upgrade, AEMO introduces in this release, a series of new Data Interchange (DI) reports. These reports automatically generate every five minutes and are placed in the following primary delivery directories:

- \import\reports\CSVReports\
- \import\GASBB\Reports\
- \import\GSH\Reports\

AEMO automatically subscribes participants who are active Data Interchange users to the new reports.

These reports support new functionality in the pdrLoader v7.4 application, which enhances the management of the manifest request process, ensuring the pdrLoader only reconciles and requests content published to source directories where content is actively downloaded.

The reports provide the mechanism for the pdrLoader v7.4 to understand which data feeds from the AEMO participant file server are currently active.

The v7.4 pdrLoader upgrade also allows some additional flexibility in the pdrLoader deployment model so it is possible to deploy separate instances of the pdrLoader application, where each instance handles data from different market feeds. For example, one pdrLoader processing electricity market data and a separate pdrLoader processing gas market data.

For details about the supported software versions for this Release, see Baseline Assumptions on page 8.

2.3 Data Interchange software and guides

You can find Data Interchange software and associated documents in the following locations:

- Releases directory on the participant file share: FTP to 146.178.211.25; Data Interchange, pdrBatcher, pdrLoader, or Replication Manager.
- Data Subscription web application in the web portal:
  - Production: https://portal.prod.marketnet.net.au
  - Pre-production: https://portal.preprod. marketnet.net.au
- AEMO's website: NEM or Gas IT Systems.

2.4 After deployment of this Release

There is no change to the Electricity or Gas Data Models.

3 BASELINE ASSUMPTIONS

AEMO works to the assumption that participants' systems are compliant with the minimum supported configuration of the following software and systems.

3.1 Software

The current software versions are:

	Current version	Release
Web Services	1.04	June 2013
Java	7	AEMO expects this software will run on later Java releases. As per sec 2.1 this software upgrade includes complete certification against Java 8
Windows service	64 bit JRE	32 bit JRE still supported

3.2 Data Interchange

The current DI software versions are:

	Current version	Still supported
Electricity Data Model	4.26	4.25
PDR Loader	7.3	7.3
PDR Batcher	7.3	7.3
Replication Manager	v3.0.16	v3.0.16

3.2.1 Database management systems

	Current	Still supported
Microsoft SQL Server	2012	2008
Oracle	12c	11g

4 IMPLEMENTATION

4.1 Approval or agreement to change

AEMO requests approval to proceed from all participant change controllers. For approval dates, see Release Schedule EMMS062017.

4.2 Transition

There is no transition required for this release.

4.3 Implications

To maintain systems in-line with AEMO's market systems, participants need to:

- Review and assess the impact on their market systems with respect to the changes implemented as part of this Release.
- Change their systems prior to the implementation of this Release.
- Schedule staff and resources to upgrade their market systems for the production implementation of this Release.
- AEMO encourages participants to make use of the four-week pre-production period, to assess and test any impact to their market systems and business processes.
  AEMO advises participants using data replication products critical to their business to participate in the pre-production rollout and testing period.

4.4 Upgrade options

From a wholesale energy market system's focus, participants need to:

1. Review and assess the impact on their market systems with respect to the changes implemented as part of this Release.
2. Schedule staff and resources to upgrade their market systems from the implementation of this Release. To maintain systems in-line with AEMO's market systems, AEMO recommends upgrading within six months of the implementation date.
3. Change their systems prior to the deployment of this Release to ensure they are up-to-date. AEMO recommends participants' wholesale market systems are compliant with the latest Data Interchange software versions; see Baseline Assumptions on page 8.

4.5 What happens if I do not upgrade?

If participants' systems are compliant with AEMO's supported configuration defined in the Baseline Assumptions on page 8, this Release does not impact Data Interchange systems immediately. Depending on participant's systems, not upgrading may result in the following issues:

- New data is not received to the new fields or tables because the data model elements are not created on the participant's database.

- Participants not subscribed to the latest versions of files, using the Data Subscriptions web application, will not receive the new data.
- Content in Legacy files may change after deployment of this Release.
- If participants have a system dependency on the formats of the non-Electricity or -Gas Data Model reports they need to manage these dependencies using the detail provided in this technical specification. Participants need to review and assess the impact on their market systems with respect to the changes implemented as part of this Release.

Participant systems incorrectly configured and not compliant with the Baseline Assumptions on page 8 may suffer data loss.