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# Increased MT PASA Information 2023 Release

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**October 2023**

Industry Go-live Plan

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# Important notice

## PURPOSE

This paper describes the go-live approach with respect to the upgrade of AEMO's wholesale systems for enhancing information on generator availability in MT PASA planned to be released on 4<sup>th</sup> and 9<sup>th</sup> October 2023 in preparation for rule commencement on 9<sup>th</sup> October 2023.

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## VERSION CONTROL

Version	Release date	Changes
0.1	31 July 2023	Draft released to the Implementation Forum for comment
1.0	8 September 2023	Final version

# Executive summary

On 4th and 9th October 2023 AEMO will implement software releases (“MT PASA 2023 Release”) across its Wholesale systems supporting AEMO’s reform delivery program for electricity under the NEM Reform Program<sup>1</sup>. The releases introduce changes to support the availability of enhanced information for MT PASA.

AEMO has a key coordination role, through collaboration with its industry working groups, to ready Industry and itself for the various system and market “go-live” dates. This document describes the go-live approach with respect to the upgrade of the relevant systems for the MT PASA 2023 Release.

At a high level, the go-live responsibilities are set out below:

- AEMO to facilitate Industry Tests for the MT PASA 2023 release.
- AEMO to enable the market software to commence operations in line with rule requirements.
- Participants to complete their preparations in readiness for the MT PASA 2023 release.

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<sup>1</sup> <https://www.aemo.com.au/initiatives/major-programs/nem2025-program/about-nem2025-program>

# Contents

<b>Executive summary</b>	<b>3</b>	
<b>1. Introduction</b>	<b>5</b>	
1.1 MT PASA 2023 release	5	
1.2 Document purpose & approach	6	
<b>2. MT PASA 2023 Go-live Plan Framework</b>	<b>7</b>	
2.1 Scope	7	
2.2 Principles	7	
<b>3. MT PASA 2023 Go-Live Plan</b>	<b>8</b>	
3.1 Industry Testing	8	
3.2 Go-live plan	8	
3.3 Go-live criteria and readiness decision	8	
3.4 Communications	9	
3.5 MT PASA 2023 Release Industry Go Live schedule	9	
<b>4. Participant Support Arrangements</b>	<b>12</b>	
4.1 Support Arrangements for preparing for October 2023	12	
4.2 Participant Support Arrangements for October	12	
4.3 Production Support	12	
<b>Glossary</b>	<b>13</b>	
Tables		
Table 1	MT PASA 2023 Release Go-Live Plan development timeline	6
Table 2	MT PASA 2023 Release Schedule	9

# 1. Introduction

This chapter describes the implementation of the Australian Energy Market Operator's (AEMO) Increased MT PASA Information initiative under the NEM Reform Program.<sup>2</sup> This document covers industry go-live activities for the MT PASA 2023 release and then details the purpose and context of the release Go-live Plan.

## 1.1 MT PASA 2023 release

The MT PASA 2023 release, consisting of software releases on 4<sup>th</sup> and 9<sup>th</sup> October, include changes to AEMO wholesale systems associated with enhancing information on generator availability in MT PASA NER amendment. The release covers the procedural, IT system and market readiness arrangements needed to implement the Increased MT PASA Information Go-live Plan using the following workstreams:

- Procedures – defines and implements the required changes to market procedures.
- Systems – designs, develops, tests, and implements changes to AEMO's market systems.
- Readiness – coordinates, assists, and prepares AEMO and participants to transition to the MT PASA changes.

AEMO's MT PASA 2023 Release has entered the implementation planning phase. This paper relates to the go-live planning for the October releases.

### 1.1.1 Enhancing information on generator availability in MT PASA

The AEMC made a final determination rule change to increase the scope of information gathered from scheduled generators through AEMO's MT PASA. This includes information on the reasons for future periods of unavailability and the expected time it would take to become available again. These changes will ensure market participants, stakeholders, policymakers, and market bodies have access to more detailed information on unit availability. This should contribute to better operational, planning, policy and investment decisions as fewer flexible generators continue to change their operating schedules as they near the end of their technical life.

Daily PASA availability (an existing requirement under MT PASA) indicates whether a unit could be available or not during a specified period. Under the final rule, scheduled generators will submit two new pieces of information on their availability through MT PASA:

- "Unit State" in the form of reason codes to indicate how possible it is that a unit's availability may change and under what conditions. For example, a generating unit that is unavailable for economic reasons (e.g. due to sustained low prices making operation uncommercial) may be more likely to respond to changes in market conditions than one that is unavailable for physical reasons (e.g. planned maintenance).
- And for applicable reason codes, "Unit Recall Times" to accompany the daily MW availability they already submit. For example, a unit with a recall time of 48 hours could fill a gap left by a forced outage or a short-term price increase, whereas a unit with a recall time of six months may only return early from its planned period of unavailability if there was a more permanent change in market conditions. Reason codes are standardised and defined such that they distinguish between an

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<sup>2</sup> For more information on AEMO's NEM Reform Program see: <https://www.aemo.com.au/initiatives/major-programs/nem2025-program/about-nem2025-program>

economic outage and a physical outage, while the recall time will represent the time the participant expects the unit to take to return the unit to full availability under 'normal conditions'.

The process for and the form of reason and recall time information is defined in AEMO's *Reliability standard implementation guideline* (RSIG) published 24 April 2023.

The changes affect the following participant types:

- Market Generators with Scheduled Generation Units and Bi-directional Units (from June 2024 in line with IESS commencement) required to supply the additional data fields.
- Optional for Transmission Network Service Providers and Scheduled Load participants.

### 1.1.2 5.2 EMMS Data model

Changes to the MMS data model required to support the Increased MT PASA Information implementation was released to Preproduction on 20<sup>th</sup> April 2023 and Production on 23rd May 2023. These changes are documented in the EMMS Technical Specification<sup>3</sup>.

## 1.2 Document purpose & approach

This document describes the go-live approach for the MT PASA 2023 release with respect to the deployment of Wholesale System enhancements supporting the Increased MT PASA Information initiative.

The Increased MT PASA Information Industry Go-Live Plan is developed in consultation with industry through the Implementation Forum. Table 1 below illustrates AEMO's engagement approach and timeline for developing the plan.

**Table 1 MT PASA 2023 Release Go-Live Plan development timeline.**

<b>Milestone</b>	<b>Date</b>
<b>Engagement with the Implementation Forum</b>	25 July 2023
<b>Publish draft for industry feedback</b>	31 July 2023
<b>Deadline for industry feedback</b>	18 August 2023
<b>Publish final plan</b>	8 September 2023

<sup>3</sup> <https://aemo.com.au/-/media/files/market-it-systems/emms/2023/emms-technical-specification-october-2023.pdf?la=en>

# 2. MT PASA 2023 Go-live Plan Framework

## 2.1 Scope

- In scope
  - Deployment of Wholesale system changes to support changes to MT PASA.
  - Deployment of EMMS 5.2 Data Model.
  - Communications during deployment.
  - Support arrangements during the go-live period.
- Out of scope
  - Participant Contingency plans.

## 2.2 Principles

The industry transition and go-live strategy principles apply to the MT PASA 2023 Release changes. These are:

1. Mandated MT PASA commencement dates should be met.
2. NEM operations should be uninterrupted during periods of transition and go-live.
3. Market system go-live risks should be minimised.
4. Participants should be provided with implementation flexibility where possible.
5. Participants and AEMO are responsible for their own go-live planning.

# 3. MT PASA 2023 Go-Live Plan

## 3.1 Industry Testing

Industry testing is optional for participants and provides the opportunity to prove their market systems against AEMO's market systems.

- 20<sup>th</sup> April – EMMS 5.2 Data Model supporting MT PASA changes was released to the Pre-Production environment.
- MT PASA changes will be released to the Pre-Production environment prior to 28<sup>th</sup> August.
- From 28<sup>th</sup> August to 29<sup>th</sup> September Participants can:
  - Submit offers via FTP, API, or UI via Markets Portal (Note: API candidates need to pre-register).
  - Receive NEM reports reflecting updated offers (from 31<sup>st</sup> August).
- AEMO has provided an Industry Test Approach Plan to support participant planning<sup>4</sup>.

## 3.2 Go-live plan

The Wholesale Systems production deployment for the MT PASA 2023 Release is scheduled for 4<sup>th</sup> October to provision participant ability to submit MT PASA Offers inclusive of Unit State and Recall Time with effective date(s) of 9<sup>th</sup> October or greater.

From Rule commencement date 9<sup>th</sup> October, Unit State and Recall Time to feature in MT PASA Availability Report and submitted offers available for consumption via Wholesale Data Interchange.

There will be no outage for this deployment and no participant impact. (This will be confirmed in the Final version of this document).

## 3.3 Go-live criteria and readiness decision

Go Live Criteria	Description
Solution readiness	AEMO solution tested in-line with requirements: <ul style="list-style-type: none"><li>• Enabling Participants to include "Unit State" and "Recall Time" in bidding for MT PASA.</li><li>• Reflecting updated offers in NEM Reports and Wholesale Data Interchange.</li></ul>
AEMO Business Readiness	AEMO business ready to support increased MT PASA information.

<sup>4</sup>[AEMO | Enhanced Medium Term Projected Assessment of System Adequacy \(MT PASA\) Information](#)

Go Live Criteria	Description
Market Readiness	Participants obligated to provide MT PASA offers including additional information via MT PASA Offers process. Go-live decision will reflect AEMO business and Solution readiness. Individual participant readiness is a matter for each participant.
Contingency	AEMO would need to identify a new committed readiness date and communicate to the AER.

### 3.4 Communications

Correspondence regarding the go-live will be released through AEMO Support Hub bulletins, AEMO Communication newsletter and the NEM Reform mailbox, NEMReform@aemo.com.au.

There are three categories of cutover communications that participants will receive:

- General progress updates – provide participants with information about the status implementation activities via the NEM Reform mailbox.
- Support Hub Notices – provides information to the market on Software releases including notifications of releases and outage completion.
- Issues – should any issues arise or deviations from the previously communicated processes, participants will be notified through the NEM Reform mailbox. If the issue or deviation is in relation to a notice previously sent through AEMO’s Support Hub Notices, participants will receive a communication through this channel (via the AEMO IT Duty Manager) in addition to the NEM Reform mailbox. Participants experiencing issues as result of the go-live should raise these incidents directly via the AEMO Support Hub.

### 3.5 MT PASA 2023 Release Industry Go Live schedule

The steps for the implementation of AEMO market system changes and associated communications are outlined in Table 2.

**Table 2 MT PASA 2023 Release Schedule**

#	AEMO actions	Industry Impacts and actions	Planned Time (Market Time)	Communication Channel
PREPARE PRE-PRODUCTION ENVIRONMENT				
1	AEMO will implement changes to its MT PASA Offer systems in the Preproduction environment Publish postman scripts and API document to portal. Note: EMMS 5.2 Data Model to support MT PASA was released to	No Outage. Impacted Participants to upgrade to EMMS data model 5.2.	Prior to Mon 28 Aug 2023	n/a

#	AEMO actions	Industry Impacts and actions	Planned Time (Market Time)	Communication Channel
	Preproduction on 20 April 2023			
2		Participants who intend to submit bids via API technology to apply for URM rights <sup>5</sup> and TLS certificates <sup>6</sup> via AEMO's Market Portal.		n/a
3	AEMO notifies participants that industry test period has opened.	Participants can choose to undertake MT PASA test activities.	Mon 28th Aug 2023	Email to participants who have indicated to AEMO that they would like to participate in pre-production testing.
4	AEMO will implement changes to NEM Reports in Preproduction.	MTPASA_DUID AVAILABILITY Report includes participant data for 'Unit State' and 'Recall Time'. Submitted Offers inclusive of 'Unit State' and 'Recall Time' available for consumption via Wholesale Data Interchange.	31 <sup>st</sup> Aug 2023	
5	AEMO notifies participants that updated Market Reports are available in Preproduction.	Participants can choose to verify their Offers.	31 <sup>st</sup> Aug 2023	Email to participants who have indicated to AEMO that they would like to participate in pre-production testing.
MT PASA Go-Live (Bidding)				
6		Participants to finalise submissions (current ruling) for the week starting Sunday 1 <sup>st</sup> October	Prior to Wed 4 <sup>th</sup> Oct	notification
7	AEMO will implement changes to its MT PASA Offer systems in the Production environment. Note EMMS 5.2 Data Model was released to Production on 23 May 2023.	No Outage. Impacted Participants to upgrade to EMMS data model 5.2.	Prior to Wed 4 <sup>th</sup> Oct 2023	Support Hub Notification

<sup>5</sup> <https://visualisations.aemo.com.au/aemo/web-help/Content/InformationSystems/Electricity/URM.htm>

<sup>6</sup> [TLS Certificate Management](#)

#	AEMO actions	Industry Impacts and actions	Planned Time (Market Time)	Communication Channel
8	AEMO notifies participants that MT PASA additional information requirements for Bidding are operational. All submissions must include additional information from planned market time.	Participants are advised that additional information required for MT PASA bidding is now operational.  Files containing new fields to be submitted for the week beginning trading day Sun 8 <sup>th</sup> Oct and for the upcoming 3 years.  Amendments to submissions for 1st Oct, made after 4 <sup>th</sup> Oct will require new new fields for that week.	Wed 4 <sup>th</sup> Oct 2023 from 9am to 3pm	<ul style="list-style-type: none"> <li>Email to NEM Reform Implementation Forum members and affected Participants.</li> <li>A notification will be posted on the MT PASA project website.</li> <li>"NEM Reform Announcement" e-newsletter to subscribers of newsletter.</li> <li>Article in AEMO Communications newsletter.</li> <li>Notification at NEM Reform Forums</li> </ul>
MT PASA Go-Live (REPORTING)				
9	AEMO will implement changes to NEM Reports in Production.	MTPASA_DUID AVAILABILITY Report includes participant data for 'Unit State' and 'Recall Time'.  Submitted Offers inclusive of 'Unit State' and 'Recall Time' available for consumption via Wholesale Data Interchange.	Prior to Mon 9 <sup>th</sup> Oct 2023	Support Hub Notification
10	AEMO notifies participants that changes to reporting for MT PASA are operational.	Participants can choose to verify their Offers.	Mon 9 <sup>th</sup> Oct 2023	<ul style="list-style-type: none"> <li>Email to NEM Reform Implementation Forum members and affected Participants.</li> <li>A notification will be posted on the MT PASA project website</li> <li>"NEM Reform Announcement" e-newsletter to subscribers of newsletter.</li> <li>Article in AEMO Communications newsletter.</li> <li>Notification at NEM Reform Forums</li> </ul>

# 4. Participant Support Arrangements

Participants should use AEMO's BAU support channels and raise all issues and incidents with the Support Hub. The NEM Reform mailbox<sup>7</sup> will remain open for general queries relating to the MT PASA 2023 Release.

## 4.1 Support Arrangements for preparing for October 2023

The NEM Reform Program will support participant preparations for the MT PASA 2023 Release through:

- Planning and facilitation of the Industry Test approach for MT PASA.
- Progress and Issue management during Industry Test.
- Continued operation of Industry working groups including Implementation Forum and the Industry Test Working Group (ITWG).
- Participant queries will be managed through the NEM Reform mailbox.

## 4.2 Participant Support Arrangements for October

The Support Hub will remain the main point of contact for issues, incidents and queries post 4th and 9<sup>th</sup> October releases. A specialised team (MT PASA Support) will provide post go-live support.

## 4.3 Production Support

All production issues should be raised via the Support Hub.

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<sup>7</sup> NEMReform@aemo.com.au

# Glossary

This document uses many terms that have meanings defined in the National Electricity Rules (NER). The NER meanings are adopted unless otherwise specified.

<b>Term</b>	<b>Definition</b>
ADC	Aggregate Dispatch Conformance
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AGC	Automatic Generation Control
ASL	Ancillary Service Load
BAU	Business as Usual
BDU	Bi-directional Unit
BESS	Battery Energy Storage System
Cutover / Go-live	System implementation event
CR	Change Request
CRMP	Cost Recovery Market Participant
DRSP	Demand Response Service Provider
DUID	Dispatchable Unit Identifier
EMMS	Electricity Market Management Systems
FCAS	Frequency Controlled Ancillary Service
FRMP	Financially Responsible Market Participant
FFR	Fast Frequency Response
ICF	Issue/Change Form
IESS	Integrated Energy Storage System
IF	Implementation Forum
IRP	Integrated Resource Provider
IRS	Integrated Resource System

<b>Term</b>	<b>Definition</b>
ITFG	Industry Testing Focus Group
MSGGA	Market Small Generation Aggregator
MT PASA	Medium Term Projected Assessment of System Adequacy
NECR	Non-energy Cost Recovery
NEM	National electricity market
NEMDE	National Electricity Market Dispatch Engine
NER	National electricity rules
PD	Pre-dispatch
PMS	Portfolio Management System
SCADA	Supervisory control and data acquisition
Transition	Process of shifting from current to future operating state
VFFCAS	Very Fast FCAS