

Enhanced Reserve Information and ST PASA Recall Period (1 July 2025) May 2025

Industry Go-live Plan





Important notice

Purpose

This document describes the go-live approach for upgrading AEMO's wholesale systems for the combined release of both Enhanced Reserve Information (ERI) and ST PASA Recall Period initiatives on 1 July 2025. Noting that rule effective date for the latter is 31 July 2025.

Disclaimer

This document may be subsequently updated or amended. It is intended to provide general information and guidance, which is only current as at the date of its last publication. It does not constitute legal or business advice and should not be relied on as a substitute for obtaining detailed advice about the National Electricity Law, the National Electricity Rules, or any other applicable laws, procedures, or policies. AEMO has made every reasonable effort to ensure the quality of the information in this document but cannot guarantee its accuracy or completeness.

Accordingly, to the maximum extent permitted by law, AEMO and its officers, employees and consultants involved in the preparation of this document:

- make no representation or warranty, express or implied, as to the currency, accuracy, reliability, or completeness of the information in this document; and
- are not liable (whether by reason of negligence or otherwise) for any statements or representations in this document, or any omissions from it, or for any use or reliance on the information in it.

Copyright

© 2024 Australian Energy Market Operator Limited. The material in this publication may be used in accordance with the <u>copyright permissions on AEMO's website</u>.

Version control

Version	Release date	Changes
0.1	5 May 2025	Draft for Industry Review

Executive summary

On 1 July 2025, AEMO will implement the "ERI and ST PASA Recall Period" software release across its Wholesale systems under the NEM Reform Program.

Changes for ERI:

 Will enable AEMO to publish energy availability of batteries (excluding pumped hydro) and the energy limits (availability) of scheduled generators (including pumped hydro) to improve the transparency of energy availability across the National Electricity Market (NEM). This will enable market participants to make more informed decisions about their own behaviour, including when periods of tighter supply-demand balance in the wholesale electricity market are anticipated.

Changes for ST PASA Recall Period:

 Will enable AEMO to publish more detailed availability information for individual scheduled resources to better inform the market of generation availability and allow market participants to make better decisions regarding scheduling planned maintenance and expected reliability and security conditions.

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.

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

- AEMO to facilitate Industry Tests for the "ERI and ST PASA Recall Period" release.
- AEMO to enable the market software to commence operations in line with requirements.
- Participants are encouraged to complete their preparations in readiness for the release.

Contents

Exec	cutive summary	3
1.	Introduction	5
1.1	Enhanced Reserve Information (ERI) rule change	5
1.2	ST PASA Recall Period rule change	5
1.3	ERI and ST PASA Recall Period release	6
1.4	EMMS Data Model v5.5	6
1.5	Document purpose & approach	6
2.	Go-live Plan Framework	7
2.1	Scope	7
2.2	Principles	7
3.	Industry Go-live Plan	8
3.1	Industry Testing	8
3.2	EMMS Data Model v5.5 release	8
3.3	Go-live Plan	8
3.4	Go-live criteria and readiness decision	8
3.5	Communications	9
3.6	Go-live schedule	10
3.7	Further Engagement post Go-live	14
3.8	Deployment Contingency	14
4.	Participant Support Arrangements	14
Glos	sary	15

Tables

Table 1	ERI and ST PASA Recall Period Release Go-Live Plan development timeline	6
Table 2	ERI and ST PASA Recall Period Go-live Schedule	11

1. Introduction

This chapter describes the implementation of the Australian Energy Market Operator's (AEMO) NEM Reform Enhanced Reserve Information (ERI) and ST PASA Recall Period July 2025 release.

This document provides information to Participants and their IT staff that will be impacted by the functional and technical changes being implemented with this release and to confirm activities and timeframes associated with go-live planning.

1.1 Enhanced Reserve Information (ERI) rule change

AEMO is implementing the ERI reform following the Australian Energy Market Commission's final determination in the ERI rule change on 21 March 2024. The AEMC made a final determination not to introduce a new operating reserves market. Instead, changes will be made to improve the transparency of energy availability across the National Electricity Market (NEM) that will enable market participants to make more informed decisions about their own behaviour, including when periods of tighter supply-demand balance in the wholesale electricity market are anticipated.

Under the reform three new measures will be introduced:

1. Publication of previous day's 5-min data for batteries

From 1 July 2025, AEMO will publish the previous trading days' energy availability for batteries, by Dispatchable Unit Identifier (DUID) and for each five-minute dispatch interval (DI), at the end of the trading day (note that within the ERI rules, a 'battery' is a scheduled bidirectional unit, excluding pumped hydro).

2. Publication of daily energy limits (total availability) for scheduled generators

From 1 July 2025, AEMO will publish the daily energy limits (total availability) of scheduled generators (including pumped hydro), aggregated by region, at the start of the trading day.

Publication of aggregated state of charge of batteries in near-real time From 1 July 2025, AEMO will publish energy availability of batteries (i.e. state of charge in MWh), aggregated by region and each Trading Interval (TI) for regions which already have several battery providers registered. That is, all regions except Tasmania.

1.2 ST PASA Recall Period rule change

In May 2022, the AEMC made a final determination to amend the NER provisions relating to the ST PASA to introduce greater flexibility to ST PASA, revise some ST PASA definitions and obligations and require the commencement of the new ST PASA from 1 July 2025. The final rule "Updating Short Term PASA" introduced a principles-based approach for AEMO to administer ST PASA, included an obligation to publish a ST PASA Procedure, made changes to ST PASA publication timetable, the definition of 'energy constraint' and PASA availability.

This project will introduce a principles-based framework, linked to the PASA objective, to guide AEMO's administration of ST PASA. Other changes, include a requirement for AEMO to publish availability information for individual scheduled resources, and amended definitions of PASA availability and energy constraints.

In due course, this rule will facilitate the implementation of AEMO's ST PASA Replacement Project. As that project has been delayed beyond its original implementation date, this Project scope only includes initial Procedures that will not materially change the operation and administration of ST PASA, other than in relation to the new information requirements. This Project will also deliver the system changes associated with the recall time and unit level availability information.

Note

AEMO's processes to manage reliability of supply (including when intervention is necessary) are not included in the scope of this Project. However, changes to the PD/ST PASA calculation are being progressed in parallel through the ST PASA Replacement Project.

1.3 ERI and ST PASA Recall Period release

This release introduces changes to NEM wholesale systems for ERI and ST PASA Recall Period. It covers the procedural, IT system and market readiness arrangements needed to implement the 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 FPP-FO changes

AEMO's ERI and ST PASA Recall Period release has entered the implementation planning phase.

1.4 EMMS Data Model v5.5

Changes to the EMMS Data Model are required to support both ERI and ST PASA Recall Period. These changes are documented in EMMS Technical Specification¹.

1.5 Document purpose & approach

This document describes the go-live approach for the release with respect to the deployment of Wholesale System enhancements.

The ERI & ST PASA Recall Period 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.

Milestone	Date
Publish draft for industry feedback	5 May 2025

Table 1 ERI and ST PASA Recall Period Release Go-Live Plan development timeline

¹ <u>https://aemo.com.au/en/energy-systems/market-portals-directory/tech-specs</u>

Milestone	Date
Deadline for industry feedback	23 May 2025
Publish final plan	30 May 2025

2. Go-live Plan Framework

2.1 Scope

- In Scope
 - Deployment of wholesale system changes to support the implementation of both ERI and ST PASA Recall Period
 - o EMMS Data Model v5.5 changes
 - o Communications during deployment
 - o 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 ERI and ST PASA Recall Period changes. These are:

- The changes within this release are mandated via Procedure changes commencement date of 1 July 2025 should be met for ERI and 31 July 2025 for ST PASA Recall Period.
- NEM Operations should be uninterrupted during periods of transition and go-live.
- Market system go-live risks should be minimised.
- Participants should be provided with implementation flexibility where possible.
- Participants and AEMO are responsible for their own go-live planning.

3. Industry 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 in the pre-production environment.

AEMO's Pre-Production retail and wholesale environments were refreshed between 24 February 2025 and 28 February 2025. The wholesale data was taken from a copy of Production on 14 February 2025.

For further details including testing scope inclusions please refer to ERI and ST PASA Recall Period Industry Test Strategy².

3.2 EMMS Data Model v5.5 release

EMMS Data Model v5.5 was released to pre-production on 25th March 2025 and production on 29th April 2025 to allow participants to install/upgrade prior to Industry Test start and go-live respectively.

Data model 5.5 release provides two scripts to participants, one to create the data model from scratch and the other to update from a previous version. This step is a pre-requisite for any participant to be able to perform their testing.

For further information – <u>AEMO | NEMweb Help</u>

3.3 Go-live Plan

The July 2025 release includes system changes for both ERI and ST PASA. The production deployment for the release is scheduled for Tuesday 1 July 2025 during the standard maintenance window. NEM Report changes for ST PASA Recall Period will be published on 31 July 2025. Participants are advised to install/upgrade to EMMS Data Model v5.5 by 1 July 2025 (available in Production from 29 April).

3.4 Go-live criteria and readiness decision

Solution Go Live Criteria	Description
Solution readiness	AEMO solution tested in-line with requirements. System Changes required to meet initiative requirements and ongoing stability of existing systems.
AEMO business readiness	AEMO business ready to support release changes.

² ERI and ST PASA Recall Period Industry Test Strategy

Service Commencement Criteria	Description
Market readiness	Whilst there are no formal Market Readiness requirements, Participants must ensure that they are able to generate and accept the relevant changes.

A checkpoint decision will be made on 23 May to determine initiative readiness for Production go-live on 1 July 2025 and communicated, via the June Implementation Forum.

3.4.1 Participant readiness

Participant readiness activities, including participation in industry testing, are not a pre-requisite for AEMO to confirm technical readiness to go-live. As such, the release will not require formalised participant readiness reporting.

AEMO encourages Participants to engage in Industry Testing during May/June 2025.

3.4.2 Transition period

Not applicable for this release.

3.5 Communications

Correspondence regarding the go-live will be released through AEMO Support Hub bulletins and the <u>NEM Reform</u> <u>mailbox</u>. AEMO will provide the following forms of updates to participants during the AEMO cutover:

- General updates provide participants with information about the status of 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 in addition to the NEM Reform mailbox. Participants experiencing issues as a result of the go-live should raise these incidents directly via the AEMO Support Hub.

3.6 Go-live schedule

The wholesale system's production deployment for ERI and ST PASA Recall Period is scheduled for Tuesday 1st July 2025. No interruption to production is expected.

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

Table 2 ERI and ST PASA Recall Period Go-live Schedule

Ref ID	Date	AEMO Action	Participant Impact/Action	Communication Channel
		Pre-Production		
1	25 Mar 2025	EMMS Data Model 5.5 release to Preproduction including scripts to install/upgrade the data model.	 No outage required. Impacted Participants can upgrade their systems to EMMS Data Model v5.5. Existing Participants are auto-subscribed to any new files when they upgrade. Check that all ERI and ST PASA reports are set to 'active' in PDR Monitor to consume these reports. 	 Support Hub Notification Email to NEM Reform Implementation Forum members
2	21 May 2025	 ERI and ST PASA Recall Period changes will be available. AEMO email notification that supported Industry Test period has commenced and EMMS Data Model 5.5 ERI tables are publishing and ST PASA tables will commence publishing from 27 May. 	 Participants can participate in Industry Testing Participants can choose to start providing bidding data for ST PASA Recall Period. Note that Bid PASA Availability is defined as within a 24-hour period until 27 May. Participants to review all energy bids for trading dates on or after 27 May ST PASA Recall Period simulated rule effective date. ITWG Q&A support sessions will be held Tuesday and Thursday of each week during this period. 	Email to Implementation Forum members
3	27 May 2025	 AEMO will publish NEM Reports for ST PASA to Preproduction. Specifically, changes to PDPASA and STPASA reports and the new PDPASA_AVAILABILITY AND STPASA_AVAILABILITY reports. Note: Modified next-day bids reports will include Recall_Period, commencing from the publication on 28 May 2025 for trading date 27 May 2025 	Check that all reports are set to 'active' in PDRMonitor.	

ERI and ST PASA Recall Period 1 July 2025 Release Go Live Plan

Ref ID	Date	AEMO Action	Participant Impact/Action	Communication Channel
		 New real-time PDPASA and SDPASA DUID Availability reports will include Available Capacity, PASA Availability and Recall_Period. Modified PDPASA and STPASA reports will include a change to the Region Availability calculation to use PASA Availability if Recall_Period ≤ 24 hours , else to use Max Avail 		
4	17 Jun 2025	AEMO email notification that supported industry test period has concluded	Communication only	 Email to Implementation Forum members at completion
		Prior to Production Go-live 1	July 2025	
5	29 Apr 2025	EMMS Data Model 5.5 release to Production including scripts to install/upgrade the data model.	 No outage required. Impacted Participants can upgrade their systems to EMMS Data Model v5.5. Existing Participants are auto-subscribed to any new files when they upgrade. Check that all reports are set to 'active' in PDRMonitor. 	 Support Hub Notification Email to NEM Reform Implementation Forum members
6	27 June	 AEMO Notification: Reminder of bidding instructions for ERI and ST PASA To confirm ERI and ST PASA Recall Period Release. 	Communication only	Email to Implementation Forum members
7	1 July 2025	Deployment of ERI and ST PASA Recall Period release to Production. EMMS Data Model 5.5 tables are publishing for ERI - ST PASA tables will populate from 31 July 2025.	 No outage required Note: no change to existing reports for ST PASA Participants can choose to start providing bidding data for ST PASA Recall Period. Note that Bid PASA Availability is defined as within a 24-hour period until 31 July rule effective date and AEMO will not use the data until 0400 AEST on 31 July. Participants to review all energy bids for trading dates on or after 31 July ST PASA Recall Period rule effective dateAEMO recommends that this is completed prior to 31 July 2025 as AEMO will be checking participants progress in mid-July. 	 Support Hub Notification Email to NEM Report Implementation Forum members at completion of deployment

ERI and ST PASA Recall Period 1 July 2025 Release Go Live Plan

Ref ID	Date	AEMO Action	Participant Impact/Action	Communication Channel
		Prior to ST-PASA Rule effective da	ate 31 July 2025	
8	Prior to 31 July 2025	AEMO notification to remind Participants to update their post-31 July trading day bids to reflect the required Recall Period. Note: AEMO will periodically check post-31 July trading day energy bids that still have a blank Recall_Period and advise relevant participants to rebid to a desired Recall Period otherwise blank will be treated as NO recallable capacity regardless of whether PASA Availability > Max Avail i.e. AEMO will assume PASA_Availability = Max_Avail, regardless of actual PASA_Availability	 Participants to update current and post-31 July trading day energy bids to reflect the new STPASA rule and Procedure for Recall Period 	 Email to Implementation Forum members. Participants to be advised of rebidding requirement as required
		ST-PASA Rule effective date 3	31 July 2025	
9	31 July 2025	 AEMO will publish NEM Reports for ST PASA to Production. Specifically, change to PDPASA and STPASA reports and the new PDPASA_AVAILABILITY AND STPASA_AVAILABILITY reports. Note: Modified next-day bids reports will include Recall_Period, commencing from the publication at 0400 hrs on 1 August 2025 for trading date 31 July 2025 New real-time PDPASA and SDPASA DUID Availability reports will include Available Capacity, PASA Availability and Recall_Period Modified PDPASA and STPASA reports will include a change to the Region Availability calculation to use PASA Availability if Recall_Period ≤ 24 hours , else to use Max Avail 	Check that all reports are set to 'active' in PDRMonitor.	 Support Hub Notification Email to Implementation Forum members
10	31 July 2025	AEMO notification that implementation of ERI and ST PASA Recall Period is complete.	Communication only	Email notification to NEM Reform Implementation Forum members

3.7 Further Engagement post Go-live

AEMO is planning to run an information session mid-July 2025 to provide examples of bidding data being submitted for ST PASA to provide feedback and further clarification to participants.

Note if bidding data is incorrect at that time, there will be no impact as the data won't be used until the rule effective date 31 July.

3.8 Deployment Contingency

The ERI and ST PASA Recall Period release is comprised of updates to current AEMO systems only.

Where a task/deployment has a participant impact, AEMO will provide communication confirming the successful deployment.

Where an issue arises that impacts the Readiness and Go-live Criteria, participants will be notified and a path forward will be communicated. This may involve consultation and will be assessed if/when required.

4. Participant Support Arrangements

All production issues should be raised via the Support Hub and managed through the current wholesale system support processes.

AEMO will run Hypercare for the ERI and ST PASA Recall Period changes until 27st August 2025. There will be heightened SME availability to support participants during this time along with:

Issue Tracking:

- Publication of identified Issues Log
- Q&A Sessions as required
- Participants are requested to follow BAU process and log issues via the AEMO Support Hub
- Communications:
 - Market communications will be used for the notification of any impacts to processing
 - The AEMO FPP project will organise post-go-live open Q&A sessions as required
 - Q&A session to discuss any issues or queries.

Glossary

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
Cutover	System or process implementation event
ERI	Enhanced Reserve Information
IF	Implementation Forum
Industry testing	Informal, uncoordinated testing by participants in AEMO's IT environments. Self-testing of functionality such as connectivity, and/or coordinated multi-party testing of functional scenarios.
ITWG	Industry Testing Working Group
NEM	National Electricity Market
NER	National Electricity Rules
PD	Pre-Dispatch
PDRMonitor	Participant Data Replication Monitor
Q&A	Question and Answer
SME	Subject Matter Expert
ті	Trading Interval