

EMMS – Inverter Dispatch – May 2027

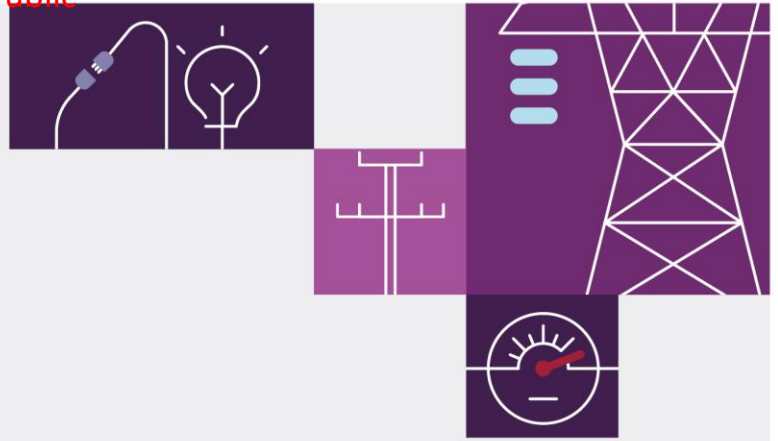
1.00 September 2026

Pre-production: 15 February 2027

Production: 15 May 2027

Rules effective: TBC





Important notice

Purpose & audience

This document describes the technical changes required to participant's systems for the System Name - Technical Specification - Month Year (Release). The Australian Energy Market Operator (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 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.
- The references listed throughout this document are primary resources and take precedence over this document.
- Unless otherwise stated, you can find resources mentioned in this guide on AEMO's website.
- **Text in this format** is a link to related information. Some links require access to MarketNet.
- **Text in this format**, indicates a reference to a document on AEMO's website.
- **Text in this format** is an action to perform in the Markets Portal.
- 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 in the Glossary.
- Rules Terms have the meaning listed against them in the **National Electricity Rules** (Rules).

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Distribution

Available to the public.

Document Identification

Prepared by: AEMO Digital

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Version History

1.00 Initial creation

Documents made obsolete

The release of this document changes only the version of EMMS – Inverter Dispatch – May 2027.

Support Hub

To contact AEMO's Support Hub use Contact Us on AEMO's website or for urgent matters phone: 1300 AEMO 00 (1300 236 600).

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1 Introduction

1.1 Audience

AEMO provides this information as a service targeting business analysts and IT staff in Registered Participant companies.

The audience for this technical specification is:

- Market Participants
- Owners and operators of Inverter Based Resources (IBR)
- Transmission Network Service Providers (TNSPs)

1.2 Objective

The EMMS – Inverter Dispatch – May 2027 describes the projects planned by AEMO from a participant perspective and includes any system related changes for participants.

1.3 Status

Version	Status
1.00	Design and development in progress
1.00	 Initial Draft for review. The design is not ready for participants' builds Presents the EMMS – Inverter Dispatch – May 2027 evolving design. Please send feedback to Contact Us. In the Details of your enquiry section, mention the EAS Knowledge Management team as the Resolver group. Participants can commence their system builds but design changes may occur according to participant feedback

1.4 Release dates

Scheduled for implementation in:

- Pre-production: 15 February 2027
- Production: 15 May 2027

1.5 Projects and enhancements

Changes and enhancements for this Release include:

No.	Functionality	Change	Affected interface	Reference
1	Conformance monitoring	New conformance process	TBC	TBC
2	NEM Reports	Data Model v5.6 tables for DISPATCH_IS, PREDISPATCH_IS and P5MIN packages include ELEMENT_CAP field.	Data Model tables NEM reports	NEMWeb Data Interchange

1.6 Rule and procedure changes

The following rules and procedures take precedence over technical specifications and guides.

Title	Project	Version/status	Effective
Inverter limits included in dispatch instructions for inverter-based resources	Inverter Dispatch	Proposal	June 2028 (TBC)

1.7 Related technical specifications

Title	Description
Data Model 5.6	Includes table updates for Inverter Dispatch.

1.8 Related documents

Once published, these resources take precedence over this technical specification

These guides and resources are updated according to this technical specification and published for the pre-production Release Date.

Title	Description	Status
-	-	-

1.9 Approval to change

No approval or agreement to change required from participant change controllers. Industry feedback was sought in the [NEM Reform Program forums](#).

1.10 Market systems user group meetings

The Market Systems User Group (MSUG) is an industry user group established to discuss NEM wholesale and retail IT systems releases. Its purpose is to facilitate the continuing improvement of AEMO's IT systems by seeking feedback and collaboration from participants.

MSUG meetings are open to all interested parties, with invitations sent to all included on the distribution list. If you have a technical question for a project and want to attend the MSUG ask your company's support team to include your email address in their [AEMO Help Desk Bulletin \(CRM\)](#) distribution list.

1.11 Version numbers

AEMO releases new versions of this document as the technical requirements are streamlined.

Incremental version numbers such as 1.01, 2.01 and so on mean there is a minor change to the technical specification.

Major version numbers such as 1.00, 2.00 means there are substantial changes to the technical specification. Participants must carefully review these changes, detailed below.

1.12 Changes in this version

Changes in this version include updates to:

- **Introduction**
- **Proposed Timeline**
- **Participant Impact**
- **Interim Solution**
- **Conformance Monitoring**
- **FAQs**

2 Proposed Timeline

The dates for the Market System User Group Meetings (MSUG) are tentative. We will provide an invitation one week prior to the meeting.

Milestone	Date	Description
Approval required	n/a	Final date for participant approval of this Release
Revised Technical Specification	November 2026	AEMO releases new versions of this document as the technical requirements are streamlined. During the project this document is the source of truth From the production release, the technical specification becomes final and the related documents become the source of truth Technical Specification Portal
Related Documents publication	15 February 2027	Release of guides and resources mentioned in Related on page 7
Next MSUG	28 October 2026	Market Systems User Group Meeting (MSUG) to review the technical specification and ask AEMO technical SMEs questions This date is tentative. The Knowledge Management Team provides the invitation prior to the meeting
Pre-production refresh	n/a	Refresh of the pre-production system with data refreshed from the production system. An outage of up to five days can occur to the pre-production environment during this period. Participant access is not restricted, however, AEMO do not guarantee the pre-production data content or system availability. During the refresh, access to other AEMO systems such as AWEFS, EMMS, OPDMS, and STTM may be intermittently affected
Pre-production available	15 February 2027	Testing period begins for participants
Coordinated Industry test	1 April 2027 – 30 April 2027	AEMO coordinated testing with all participants
Production implementation	15 May 2027	AEMO implements the release to production
Production systems available	15 May 2027	Production systems available to participants

3 Participant Impact

Key impacts for participants:

Impact	Details	Implementation date
Interim solution	AEMO implements an interim solution to provide participants with early access to inverter dispatch functionality using existing Market Systems (EMMS Data Model/Interchange).	31 March 2026
Receive inverter limits electronically	Participants receive inverter limit instructions electronically instead of via phone calls. AEMO publishes inverter limits through existing market systems (for example, NEM Reports, Data Interchange, or SCADA channels).	May 2027
Conformance monitoring process	Participants may require process changes to ensure conformance with monitoring of inverter limits.	May 2027
Network Service Provider (NSP) receiving information from AEMO	Changes to how NSPs receive information from AEMO, to include inverter limit SCADA signal over existing ICCP.	May 2027
Rule change for including inverter limits in dispatch instructions for inverter-based resources	AEMO has engaged with stakeholders when proposing the dispatch limits for inverter-based resources rule change. The AEMC will conduct a formal consultation process on the rule change proposal.	June 2028 TBC

4 Inverter Dispatch

4.1 Goal

AEMO is introducing an inverter dispatch solution that uses existing Market Management System (EMMS) and SCADA (ICCP) functionality to send inverter limits to participants for dispatch and pre-dispatch.

The goal of the initiative is to:

- Reduce reliance on manual communication, including phone-based instructions for managing inverter limits.
- Provide a consistent, automated way for participants to receive inverter limits electronically.
- Support participants to respond to inverter limits quickly and efficiently.
- Improve AEMO's ability to maintain power system security as IBRs increase.
- Reduce manual operational effort for both AEMO and participants through increased automation.
- Provide earlier visibility of inverter limits through information in participant pre-dispatch and dispatch reports.

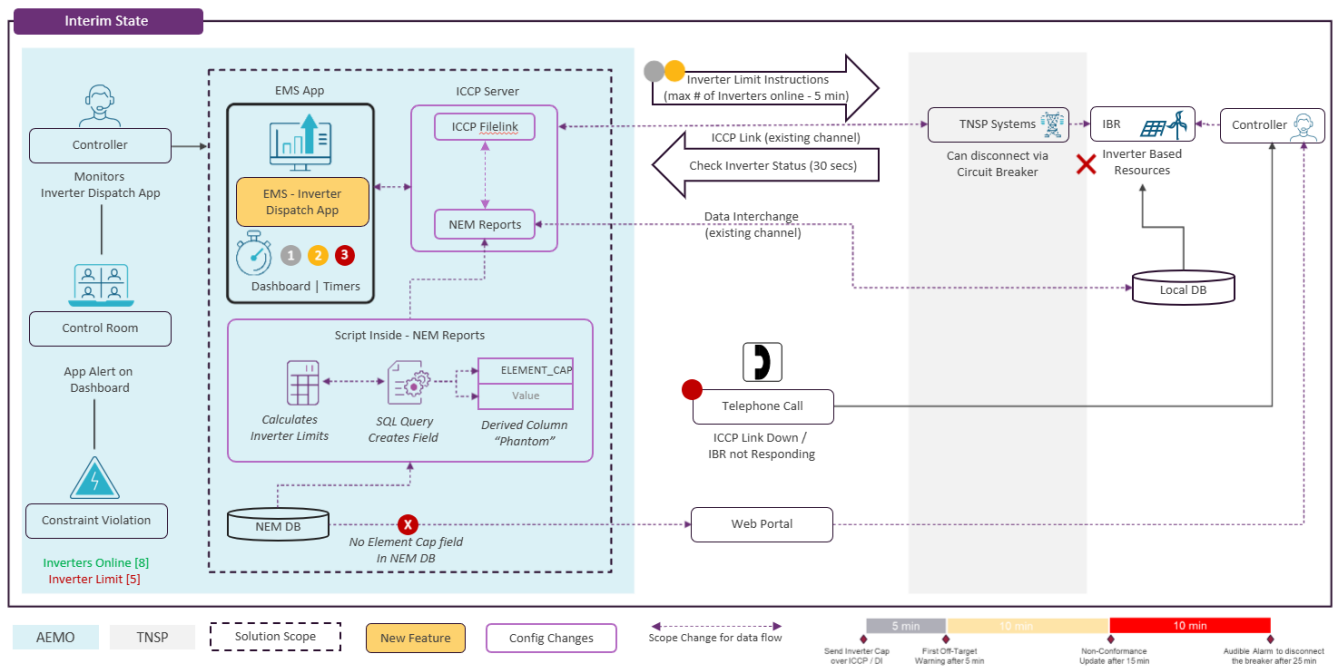
4.2 High level changes

Function	Description	Reference
Inverter limit communication	AEMO provides inverter limits via automated channels, replacing manual phone-based communication. Limits are communicated through EMMS (NEM reports and Data Interchange) and SCADA ICCP signals	NEMWeb Data Interchange
EMMS Data Model v5.6	We have updated Data Model tables for DISPATCH_IS, PREDISPATCH_IS and P5MIN packages to include ELEMENT_CAP field.	Electricity Data Model 5.6

5 Interim Solution

AEMO implements an interim solution to provide participants with early access to inverter dispatch functionality using existing Market Systems.

The interim solution supports a transition away from manual phone-based communications by enabling participants to receive inverter limits electronically through the EMMS Data Model.



5.1 Availability and implementation

AEMO deployed the interim solution to Production 31 March 2026 following successful testing in the pre-production environment with selected IBR participants.

Any participants interested in adopting the interim solution are encouraged to reach out to AEMO by email to NEMReform@aemo.com.au.

On 13 August 2026, AEMO updated the interim solution for reporting inverter limits under System Normal constraints. Prior to this update, some participants incorrectly received the maximum number of inverters as the ELEMENT_CAP value when a System Normal constraint was applied. This occurred despite AEMO not applying any inverter cap for the participants DUID.

Following the system update, ELEMENT_CAP is now correctly returned as NULL for System Normal constraints where no inverter cap applies.

5.2 Participant requirements

To use the interim solution, participants:

- Upgrade to EMMS Data Model version 5.6 or later.
- Subscribe to relevant dispatch and pre-dispatch reports.
 - For dispatch NEM reports: DISPATCH_IS contains DISPATCHLOAD table.
 - For pre-dispatch NEM reports: PREDISPATCH_IS contains PREDISPATCHLOAD table and P5MIN contains P5MIN_UNITSOLUTION table.
- Access to EMMS Data Interchange.

5.3 Transition arrangements

During the interim period:

- AEMO continues to provide support through updates at participant forums and onboarding activities for participants adopting the interim solution.
- AEMO still uses phone communications where required, to support participants and compliment the automated communication of inverter limits (via EMMS and SCADA).

6 Conformance Monitoring

Conformance monitoring ensures that IBRs comply with AEMO-issued inverter limits. It compares the number of inverters online against the applicable inverter limit for each DUID and provides visibility, alerts, and escalation where non-conformance occurs.

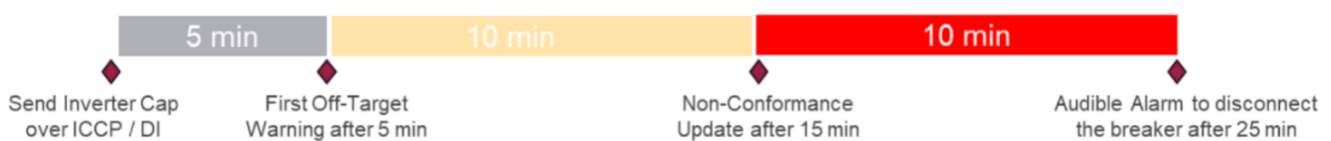
Conformance monitoring is only available in the final solution and is not part of the interim solution.

6.1 Conformance status

The system assigns a conformance status for each DUID based on the comparison between actual and target values:

- **NORMAL:** No action required. Unit is following inverter limit target.
- **LIMIT BREACHED:** Inverters online exceed the cap within the allowed response window. Move to dispatch target or rebid.
- **NULL:** A conformance status cannot be determined because the required SCADA value for the number of inverters online is unavailable.

6.2 Conformance process



6.2.1 Conformance process example

Count	DUID	Interval datetime	Inverters online	Inverter cap	Conformance status	AEMO Action
1	IBR01	[DATE] 15:00	15	10	LIMIT BREACHED	Send inverter cap notification (ICCP, NEM Reports, Market Portal)
2	IBR01	[DATE] 15:05	10	10	NORMAL	n/a

6.2.2 Non-conformance process example

Count	DUID	Interval datetime	Inverters online	Inverter cap	Conformance status	AEMO Action
1	IBR01	[DATE] 15:00	15	10	LIMIT BREACHED	Sends inverter cap notification
2	IBR01	[DATE] 15:05	15	10	LIMIT BREACHED	Sends Off-Target status (NEM Reports)
3	IBR01	[DATE] 15:10	15	10	LIMIT BREACHED	Active Off-Target status (NEM Reports)
4	IBR01	[DATE] 15:15	15	10	LIMIT BREACHED	Active Off-Target status (NEM Reports)
5	IBR01	[DATE] 15:20	15	10	LIMIT BREACHED	Active Off-Target status (NEM Reports)
6	IBR01	[DATE] 15:25	15	10	LIMIT BREACHED	Disconnects breaker (manual phone call to TNSP)
7	IBR01	[DATE] 15:30	0	10	NORMAL	n/a

7 Industry Testing Support

AEMO scheduled coordinated industry testing to commence from 1 April 2027, with formal testing concluding 30 April 2027.

7.1 Prerequisites

Information to come in future iterations of the technical specification.

7.2 Testing

Information to come in future iterations of the technical specification.

7.3 Support

Information to come in future iterations of the technical specification.

8 FAQs

Refer to the [NEM Reform project web page](#) for Inverter Dispatch with a list of General FAQs.

8.1 Is there an estimated date for the inverter dispatch rule change?

The inverter dispatch rule change has been proposed, with a tentative implementation date of June 2028. Until the rule is finalised, AEMO encourages participants to follow the proposed process, but it is not mandatory.

The Australian Energy Market Commission (AEMC) plans to publish a draft determination for the rule change on 3 December 2026. For more information, see [Dispatch limits for inverter-based resources | AEMC](#).

9 Terms

9.1 Rules Terms

You can find the following terms defined in the [National Electricity Rules \(NER\)](#).

Term
AEMO
AEMO Clearing Account
AEMO Markets Portal
AEMO Website
Allocated Units
APA
Auction
Auction Participant
Auction Rules
Average cancellation price
Average purchase price
Bid File
Cancelled Units
Cancelled volume
Cash Security
Confidential Information
Directional interconnector
Linked Bid
Market Clearing Price
Market Participants

Term
Maximum Units
NEM
Notional Interconnector
Offer Database
Offer File
Offer Period
Offer Submission
Offered Units
Offers
Product
Prudential Approved Participant
Prudential Exposure
Region
Regional reference prices
Registered Participant
Relevant Quarter
Settlement residue auction
Settlement residue committee
Settlement residue distribution agreement

Term
SRDA Units
Trading Limit
Trading Margin
Trading Position
Unit Category
Units

9.2 Glossary

You can find a full list of AEMO glossary terms in [Industry Terminology](#) on AEMO's website.

Abbreviation/Term	Explanation
AEST	Australian Eastern Standard Time
B2B	Business-to-business
B2M	Business-to-market
EMMS	Electricity Market Management System; software, hardware, network and related processes to implement the wholesale energy market
FCAS	frequency control ancillary services
FTP	File transfer protocol
IBR	Owners and operators of Inverter Based Resources
MMS	Market Management System
MSATS	Market Settlement and Transfer Solution for retail electricity
NER	National Electricity Rules
NSP	Network Service Provider
MW	Megawatt
Release	EMMS – Inverter Dispatch – May 2027
Release Dates	Pre-production: February 2027 Production: May 2027
TBC	To be confirmed
TNSPs	Transmission Network Service Providers