EMMS - Technical Specification – September 2025

0.01 August 2025

Pre-production: Wednesday 3 September 2025 (TBC)

Production: Wednesday 24 September 2025 (TBC)

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

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Version History

0.01 Initial creation

Documents made obsolete

The release of this document changes only the version of EMMS - Technical Specification – September 2025.

Support Hub

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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.

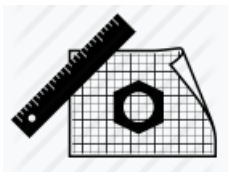
The primary audience for this technical specification is:

- Demand Response Service Providers (DRSPs)
- Market customers
- Integrated Resource Providers (IRPs)

1.2 Objective

The EMMS - Technical Specification – September 2025 (Release) describes the projects planned by AEMO from a participant perspective and includes any system related changes for participants.

1.3 Status

Version	Status
0.01	 Initial Draft for review. Presents the EMMS - Technical Specification – September 2025 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.

1.4 Release dates

Scheduled for implementation in:

- Pre-production: Wednesday 3 September 2025 (TBC)
- Production: Wednesday 24 September 2025 (TBC)

1.5 Projects and enhancements

Changes and enhancements for this Release include:

No.	Functionality	Change	Affected interface	Reference
1	Portfolio Management System	Ineligible NMI declassification	Existing Markets Portal > Portfolio Management System	Markets Portal
		Invalid NMI removal	Existing Markets Portal > Portfolio Management System	Markets Portal
		Error messages	Existing Markets Portal > Portfolio Management System	Markets Portal
		Declaration text	Existing Markets Portal > Portfolio Management System	Markets Portal

1.6 Rule and procedure changes

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

Title
NER Rule 3.10
NER Rule 3.11

1.7 Related technical specifications

Title	Description
N/A	N/A

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
Markets Portal Help	Updates the guide to Portfolio Management System	In progress

1.9 Approval to change

There is no approval or agreement to change required from participant change controllers for this release. All changes in this release are on AEMO's side.

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

No changes, this is the initial version.

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	1 October 2025	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	Wednesday 3 September 2025	Release of guides and resources mentioned in Related on page 2
Next MSUG	28 August 2025	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

Milestone	Date	Description
Pre-production implementation	TBC	AEMO implements components of the Release to pre-production for participant testing AEMO has full access to the system during this period Participant access is not restricted; however, the data content or system availability is not guaranteed
Pre-production available	Wednesday 3 September 2025 (TBC)	Testing period begins for participants
Market Trials	N/A	AEMO coordinated testing with all participants
Participant Testing	3 September 2025 (TBC) - 24 September 2025 (TBC)	Unstructured participant testing in the pre-production environment
Production implementation	TBC	AEMO implements the release to production
Production systems available	Wednesday 24 September 2025 (TBC)	Production systems available to participants

3 Participant Impact

Registered Participants can comply with this release without making any changes to their systems. All changes are on AEMO's side.

4 Portfolio Management System Enhancements

4.1 Goal

The Work Package 1 release introduces the first set of enhancements to the Portfolio Management System (PMS) to improve how ineligible and invalid National Metering Identifiers (NMIs) are identified, managed and removed during the application process.

The key goals of this release are to:

- Provide participants the option to enable automatic declassification of ineligible NMIs from their portfolio through scheduled system processes, reducing manual intervention.
- Provide participants with visibility of NMI declassification events, including it occurred, whether it was triggered manually or automatically and the reason.
- Improve the way invalid NMIs included in-flight applications are handled by allowing participants to remove them directly from the user interface, without CSV file uploads.
- Add new screens and tabs to support audit history and tracking of removed or declassified NMIs.
- Send notifications for key events, such as validation failures and group capacity breaches.

This is the first release in a broader series of PMS changes designed to improve transparency, reduce manual effort and streamline the application workflow for participants.

4.2 High-level changes

Function	Description	Reference
PMS Interface	Added NMI automatic and manual declassification, invalid NMI removal through interface, history logs, notifications and updated declaration text	**Markets Portal**

5 PMS Interface

5.1 Ineligible NMI declassification

This release improves how ineligible NMIs are managed within PMS. These changes aim to give participants more control and minimise manual effort. Enhancements include automatic and manual declassification processes, a new history audit log and improvements to the ineligible NMI list.

To eliminate delays:

- The ineligible NMI list now updates immediately when a declassification occurs, rather than in the next overnight job. This applies to both automatic and manual removals.
- Participants can submit a new application as soon as NMIs are cleared.

5.1.1 Automatic declassification

Participants now have the option to enable a new automated process that reviews ineligible NMIs daily and declassifies those that meet eligibility criteria. This process runs overnight and removes the need for manual CSV submissions or application amendments. Before declassifying any NMI, the system runs validation checks. Once these checks are run, the system produces one of three possible outcomes:

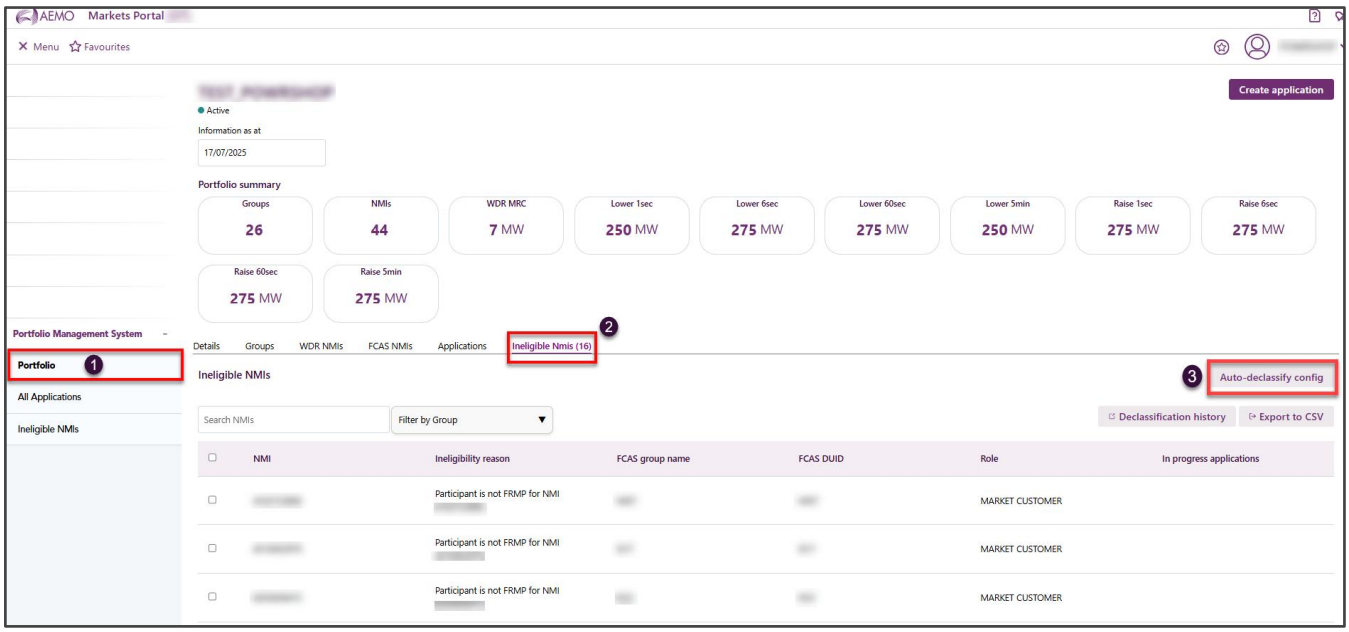
1. **Failure** – No NMIs are declassified. If validation conditions are not met, the system does not automatically declassify the affected NMIs and you receive an email with details of the failed auto declassification job. The NMIs remain on the ineligible list.
2. **Warning** - Declassification completes, but triggers a capacity alert. Removing ineligible NMIs may reduce your group's capacity below the last approved maximum capacity per bid type. If this happens, the system still declassifies the NMIs, but issues you a warning email that your aggregate group capacity is lower than your registered group capacity.
3. **Success** – NMIs are declassified and removed from the ineligible NMIs list. You receive a confirmation email of the successful declassification.

NMIs that pass validation are automatically removed from the ineligible list. This setting is configurable at the portfolio or group level in PMS.

To enable automatic declassification of NMIs:

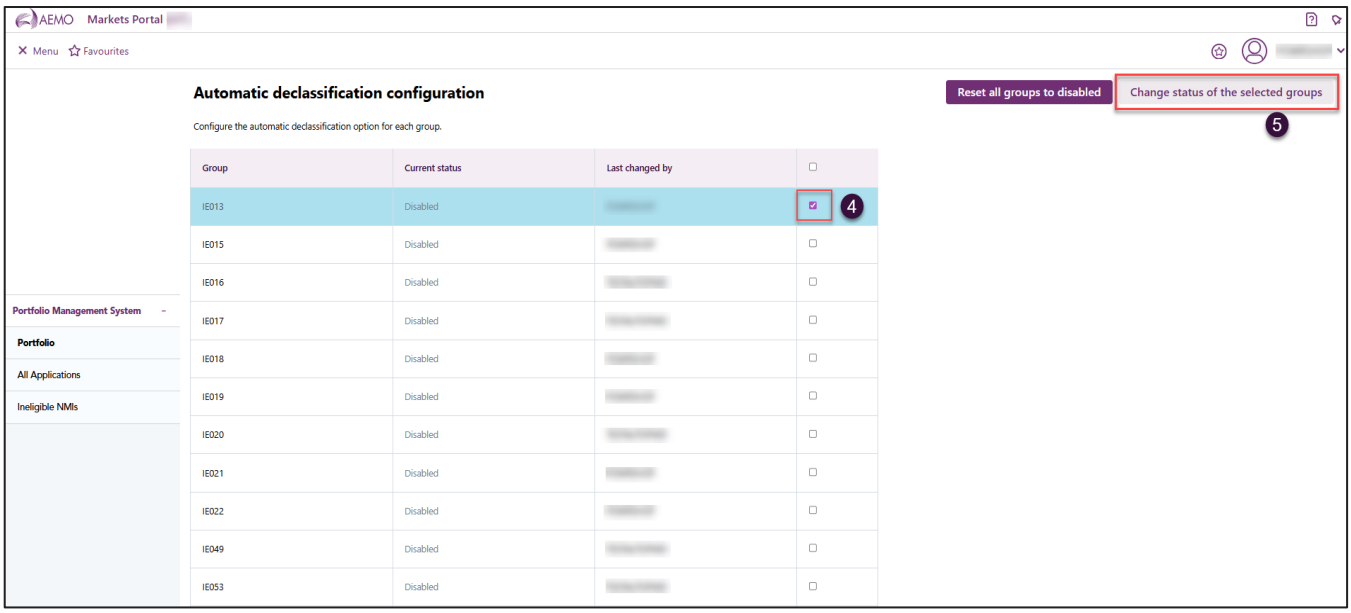
1. Open the **Portfolio** screen.
2. Select the **Ineligible NMIs** tab.

3. Click the **Auto-declassify config** button to open the configuration page.

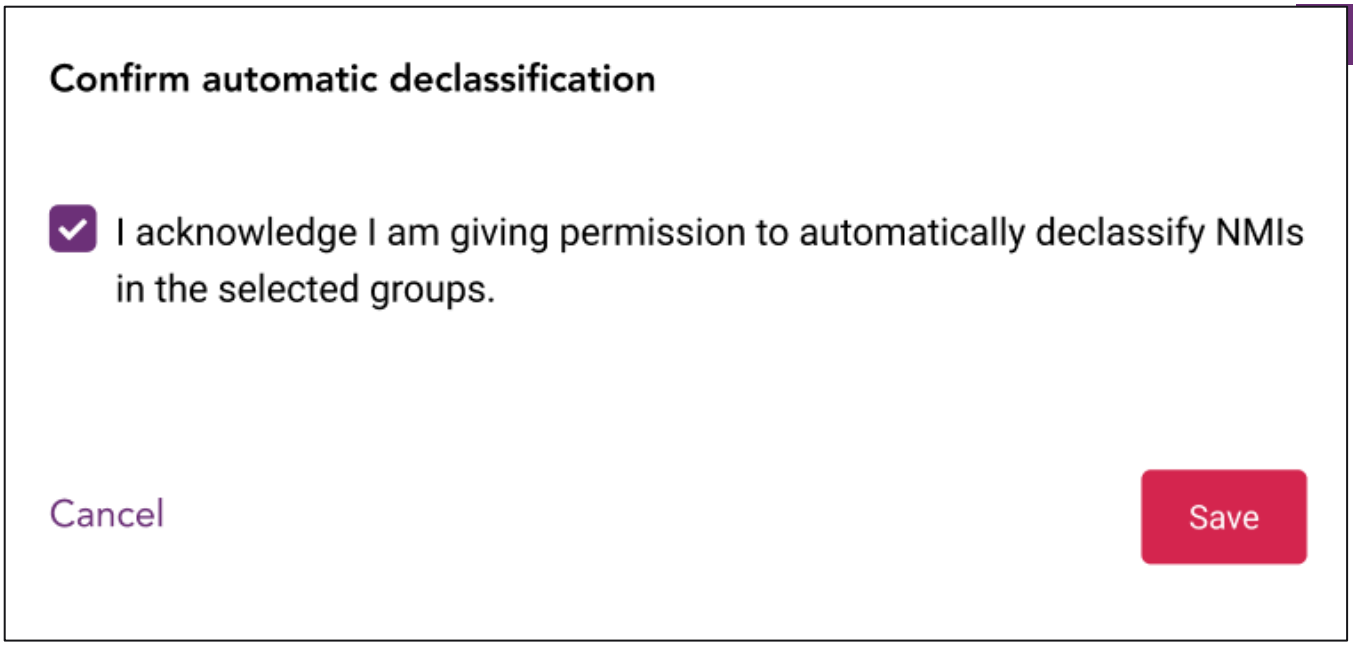


4. On the configuration page, you will see a list of **Groups** in your portfolio. Select the groups to change the **Current status** of the automatic declassification configuration

5. Click **Change status of the selected groups**.



6. In the confirmation pop-up, select the checkbox and click **Save**.



5.2 Manual declassification

Participants can now manually declassify ineligible NMIs directly from the **Ineligible NMIs** screen using a new **Declassify** button. This feature allows you to declassify ineligible NMIs without waiting for overnight processes or uploading CSV files.

The system runs validation checks before declassification. Once these checks are run, the system produces one of three possible outcomes:

1. **Failure** – No NMIs are declassified. If validation conditions are not met, the system does not proceed with manual declassification. You see an on-screen error message and the NMIs remain on the ineligible list.

2. **Warning** - Declassification completes, but triggers a capacity alert. Removing ineligible NMIs may reduce your group's capacity below the last approved maximum capacity per bid type. If this happens, the system still declassifies the NMIs and shows an on-screen warning message to review your group level capacity values. The system also sends a warning email.

3. **Success** – Declassification is successful. If all conditions are met and no warnings apply, the NMIs are declassified and removed from the ineligible list. The system displays an on-screen success message.

If you declassify the last ineligible NMI in a group, the system runs runs additional checks:

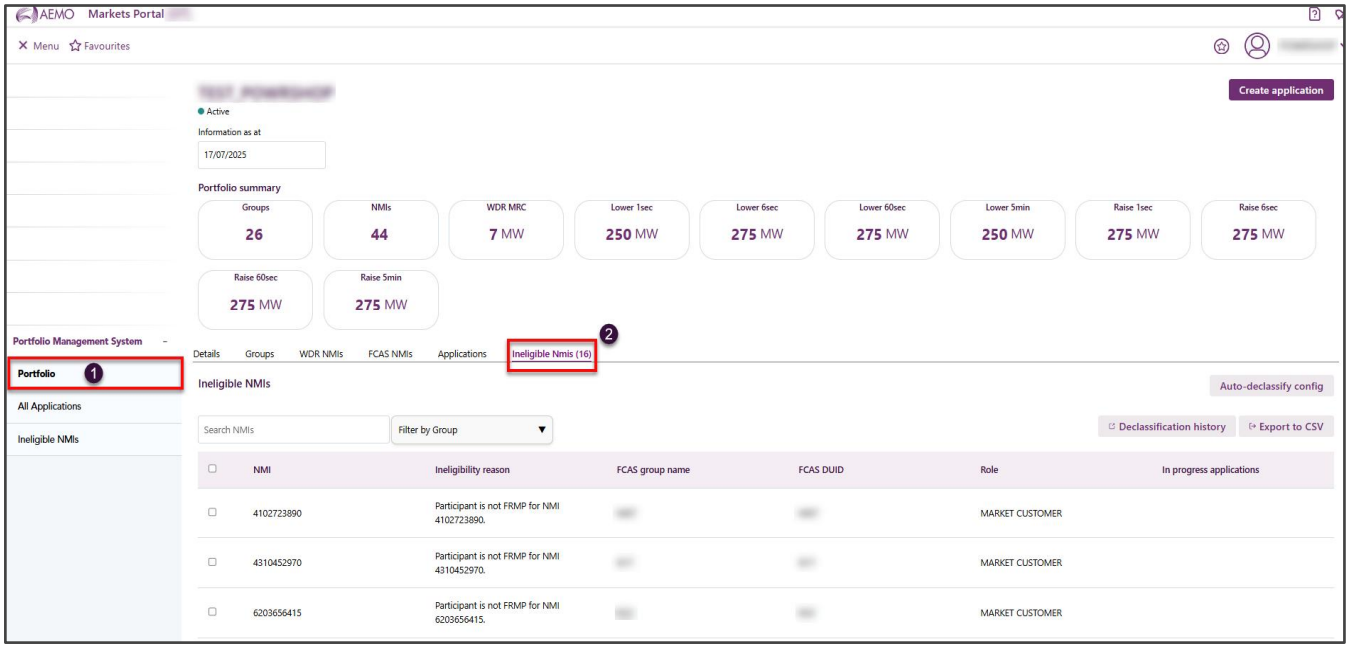
- If there is an in-flight application for the group, the declassification fails. You must withdraw or complete the application before attempting to declassify the final NMI.

- If there are no in-flight applications for the group, the system prompts you to confirm that you want to proceed with declassifying the final NMI. Confirming this will:

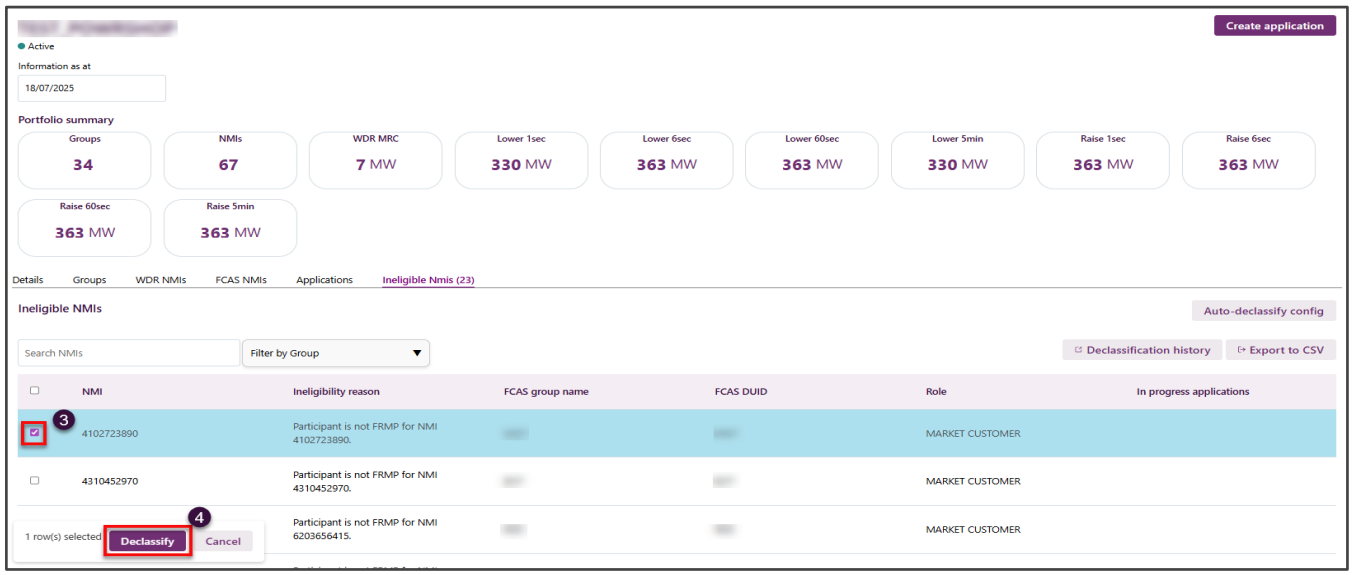
- Deactivate the group and its associated DUID. This action is irreversible.
- Trigger an automated email to the Market Registration Team at AEMO notifying them of the DUID deactivation.
- Declassify the NMI with an effective date of two business days from the confirmation.

To manually declassify NMIs:

1. Open the **Portfolio** screen.
2. Select the **Ineligible NMIs** tab.



3. Use the check boxes to select one or more **NMIs** to declassify.
4. Click **Declassify**.



A confirmation pop-up appears with the number of NMIs selected. Click **Yes, Declassify** to proceed.

5. If successful, a green confirmation message appears at the top of the screen. The selected NMIs are removed from the ineligible list.

6. If the declassification is not successful, an error message appears explaining why the system couldn't complete the action.

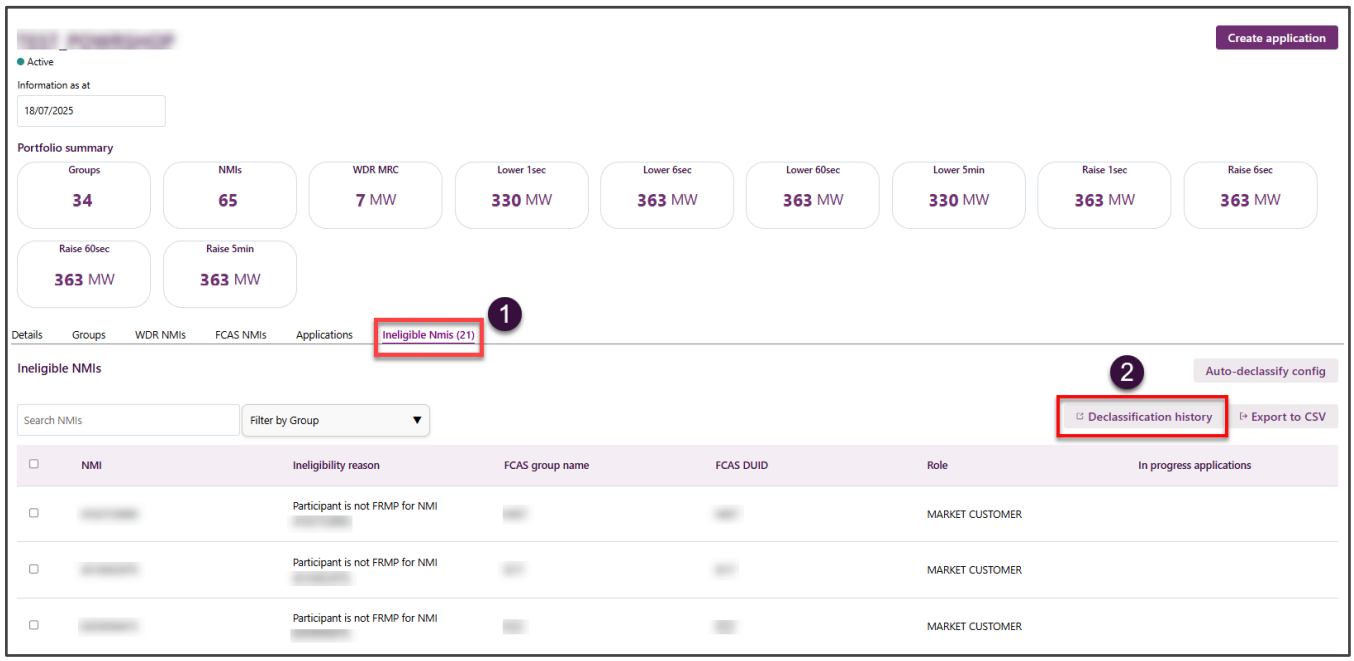
5.2.1 Declassification history log

A new **Declassification History** interface is introduced allowing you to view a history of declassified NMIs. Included are manual and automatic declassifications, helping you track changes to your portfolio.

View declassification history:

1. Select the **Ineligible NMIs** tab.

2. Click **Declassification history**.



5.2.2 Notification emails

To keep you informed of backend changes affecting your portfolio, when you enable automatic declassification, you receive an email when:

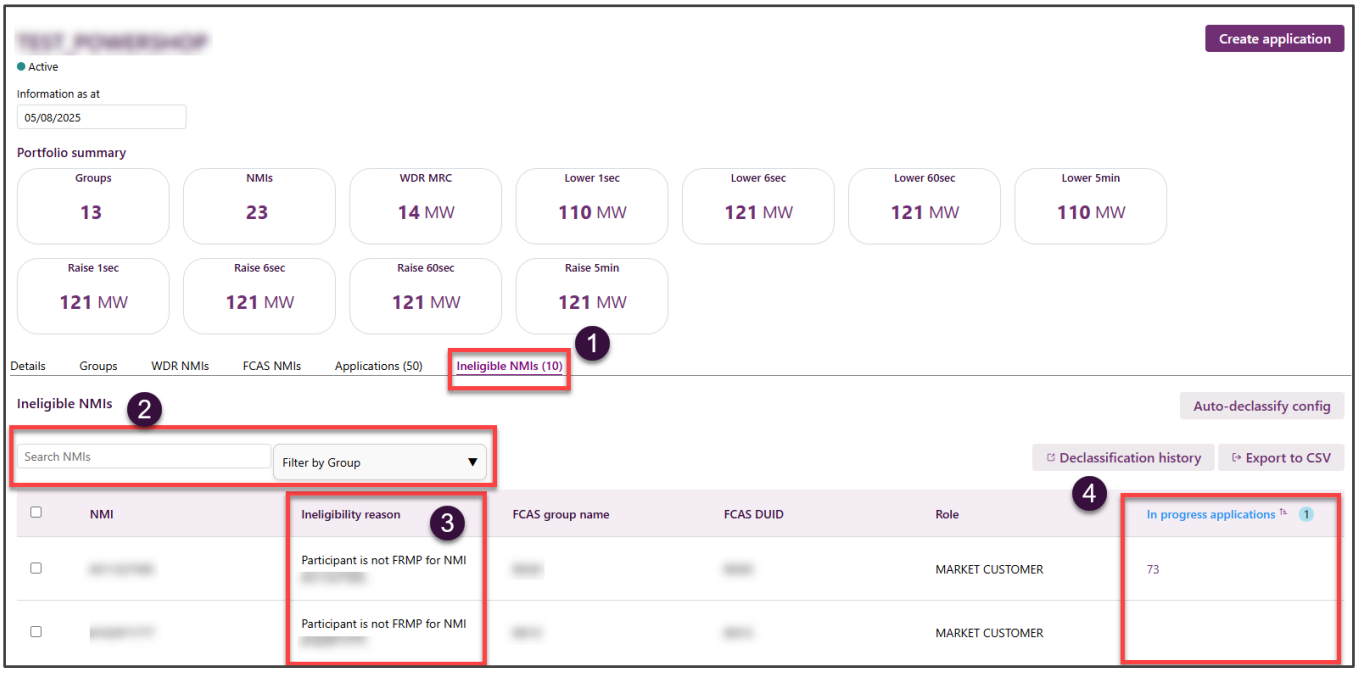
- NMIs are declassified successfully.

- NMIs fail validation. You are provided with a reason why.

- A group capacity warning is triggered. This is if a group capacity drops below the last approved maximum capacity per bid type.

5.2.3 Ineligible NMI list view improvements

1. The **Ineligible NMIs** list now appears as a tab within the **Portfolio** interface.
2. You can search and filter within the ineligible NMI list.
3. A new **Ineligible Reason** column is introduced to explain why each NMI is ineligible.
4. You can view which ineligible NMIs are present in current applications.



5.3 Invalid NMI Removal

This release introduces features to simplify managing invalid NMIs in applications. Invalid NMIs are those not yet classified but included in an in-flight application. NMIs become invalid when data changes overnight. For example, a NMI may switch to a different Financially Responsible Market Participant (FRMP), failing validation checks. These enhancements give clearer visibility into changes affecting NMI eligibility.

You can now remove these NMIs directly from the interface without CSV uploads.

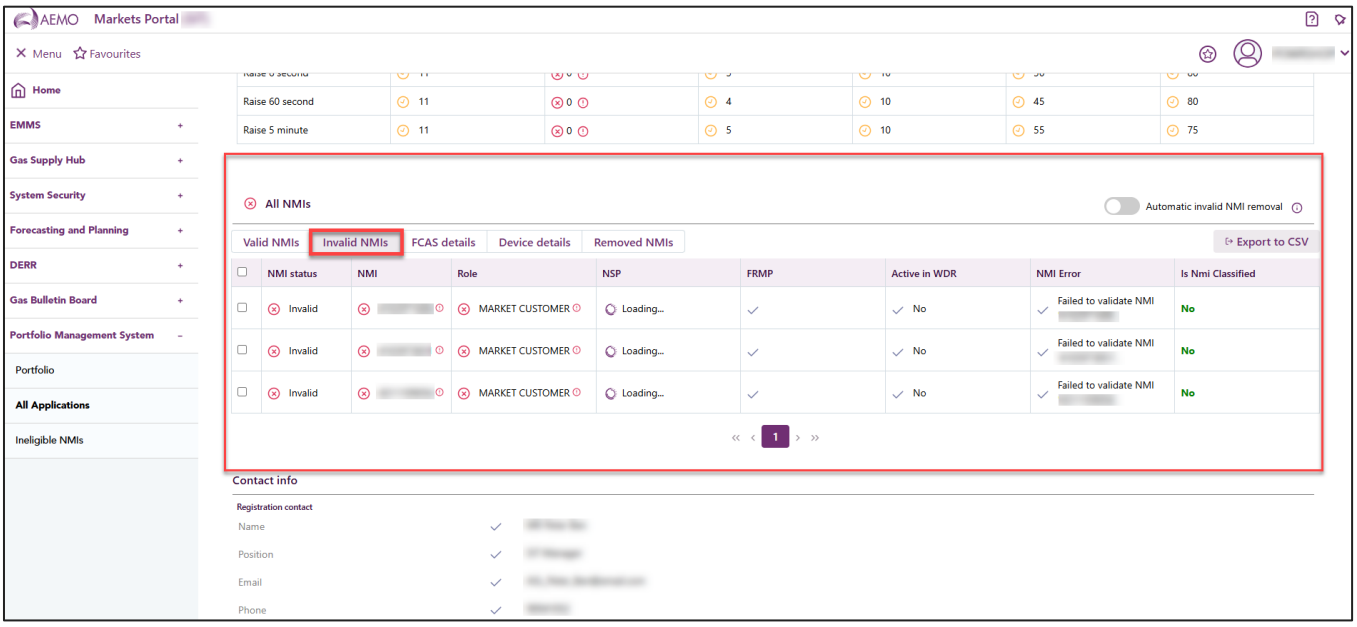
5.3.1 Viewing Invalid NMIs

A new **Invalid NMIs** tab is now available in the application interface to display NMIs that have failed validation. Each NMI entry includes the reason it is invalid and the associated group. The interface highlight validation issues so participants can resolve them.

To view invalid NMIs:

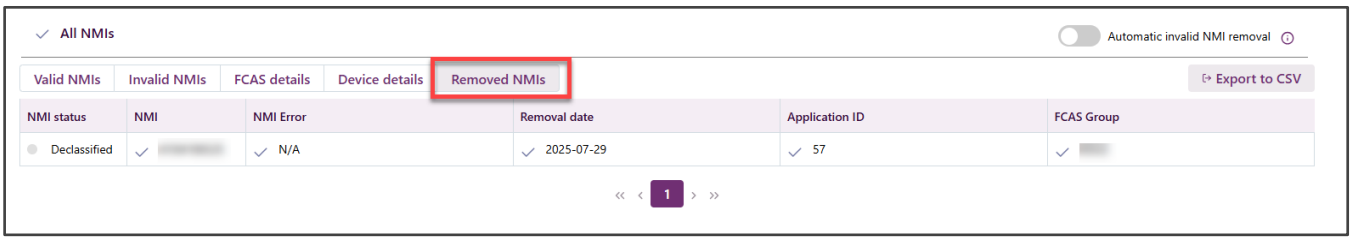
1. Navigate to an application screen.

2. Scroll down to the **All NMIs** section and select the **Invalid NMIs** tab.



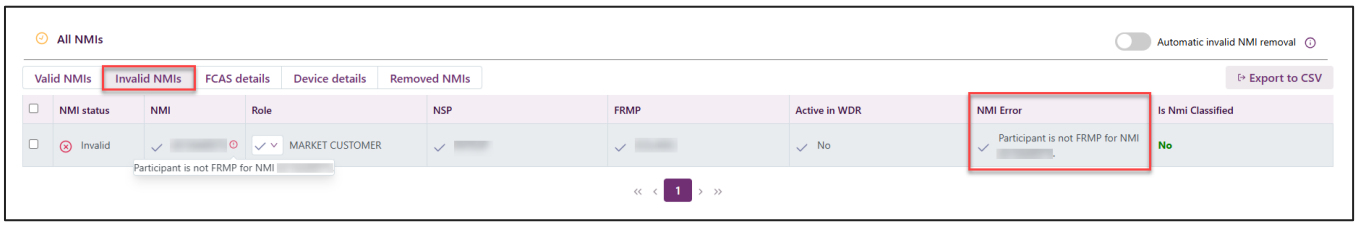
5.3.2 Removal history

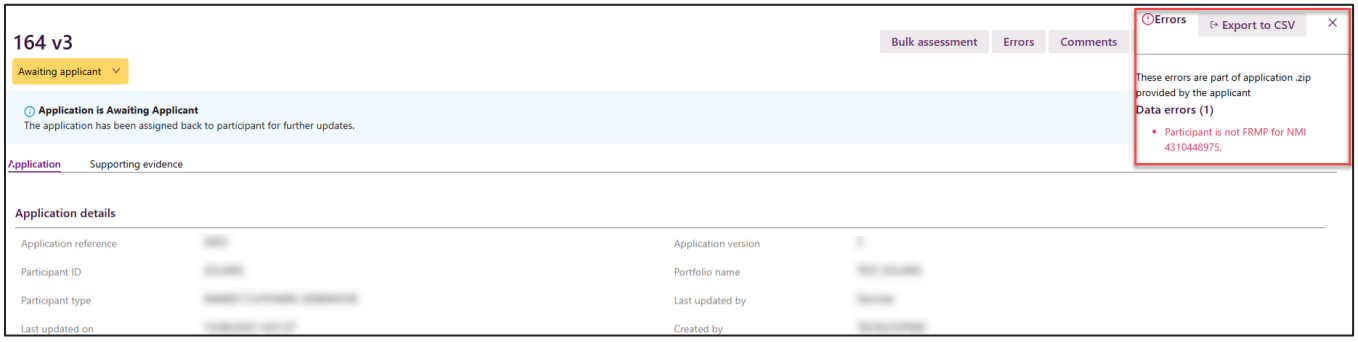
The new **Removed NMIs** tab displays a history of all NMIs that are removed from the application. This history is specific to the active application and does not include declassification events.



5.3.3 Invalid NMI errors

When NMI fails validation, the Invalid NMIs tab displays the specific error message so you can identify and resolve issues. Error details appear in the **NMI Error** column of the table and also appear in the **Errors** drop-down at the top of the application screen.



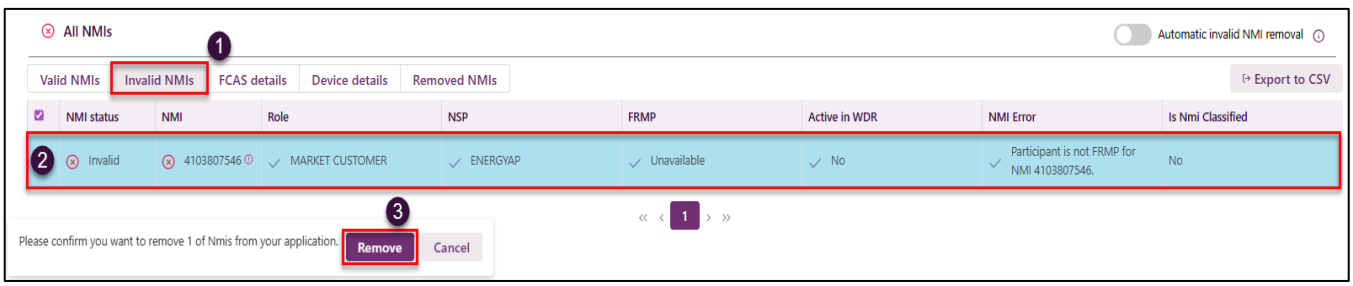


5.3.4 Manual removal

Participants can manually remove invalid NMIs from an in-flight application using the new **Remove** button.

To manually remove invalid NMIs:

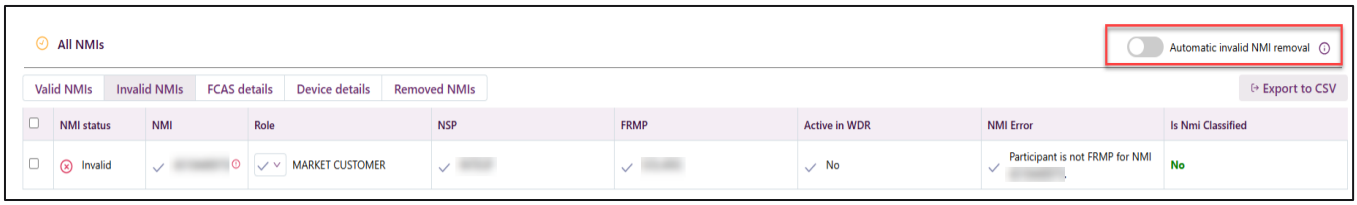
1. Select the **Invalid NMI** tab.
2. Select the **NMI** you want to remove.
3. Click the **Remove** button.
4. A confirmation pop-up appears. Click **Confirm** to proceed.
5. The interface displays a toast notification once the removal is successful.



Note: The remove button appears only when all selected NMIs are unclassified and eligible for removal. If any selected NMI is classified, you need to declassify that NMI first before removing it.

5.3.5 Automatic removal

Participants can see an **Automatic invalid NMI removal** toggle in the interface. For this release, the feature is **disabled**. The feature is currently under development will be available in a future release.



5.3.6 Invalid NMI impact during application status changes

PMS handles invalid NMIs by application status. This ensures applications progress without delays from NMIs that fail validation.

When an application is in **draft**, it cannot move forward if it contains any invalid NMIs. You will need to remove these NMIs before the application can progress.

When an application is **in assessment**, it is locked and invalid NMIs are ignored during assessment.

Invalid NMIs must already be removed before an application can be **approved**.

5.3.7 Visual indicators

This release adds dynamic visual indicators to help participants track NMI validity and group-level information in an application. Section headers (for example, **All NMIs**, **Group Details**) update based on data state.

A tick icon appears when:

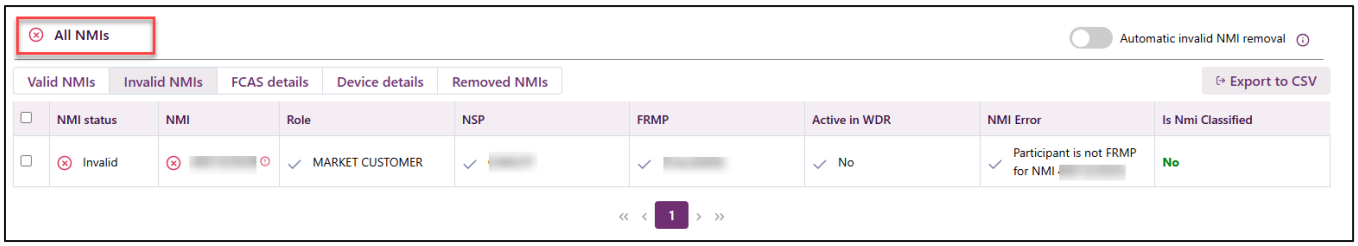
- All NMIs in the application are valid.
- No NMIs are listed in the **Invalid NMIs** tab.
- All group-level attributes are approved.

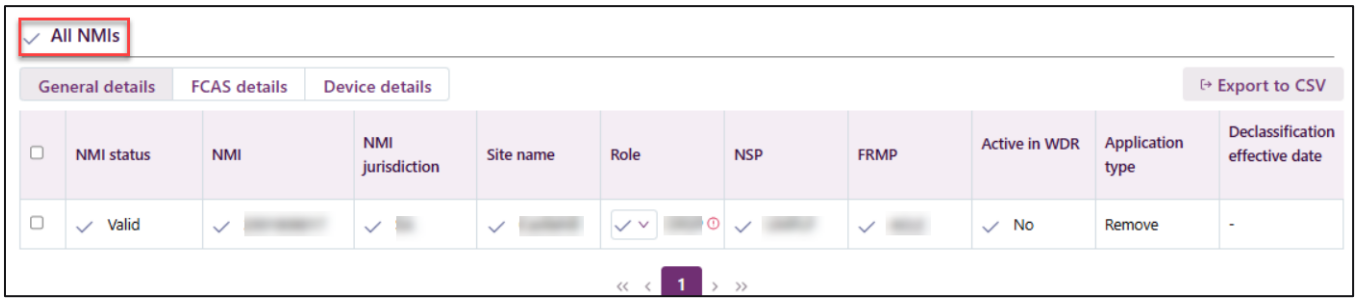
A cross icon appears when:

- One or more NMIs are invalid or present on the Invalid NMIs tab.

- Any group level attribute is not approved.

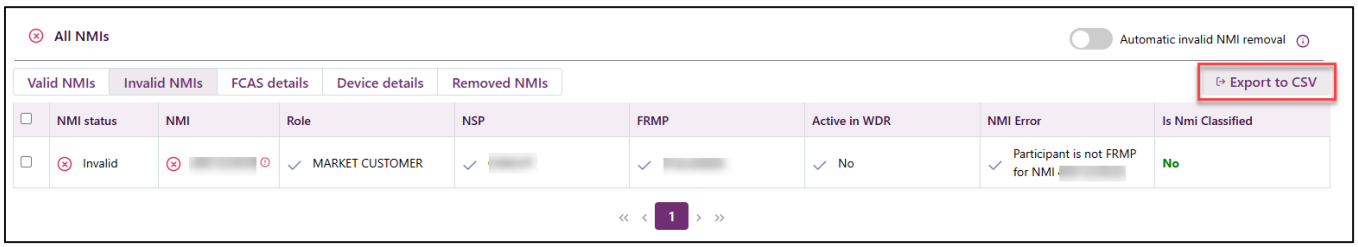
These indicators dynamically update based on participant actions. For example, when you remove an invalid NMI from the application.





5.3.8 CSV export functionality

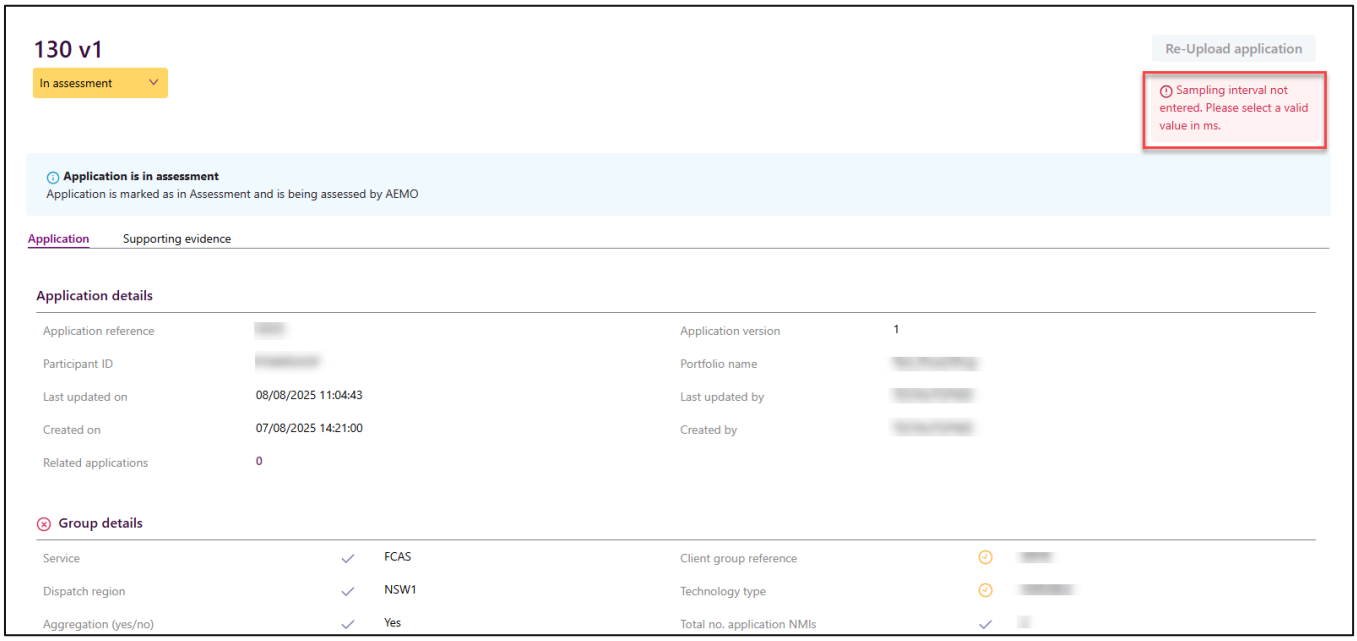
Participants can now export data from each column in the new table to a CSV file by selecting **Export to CSV**.

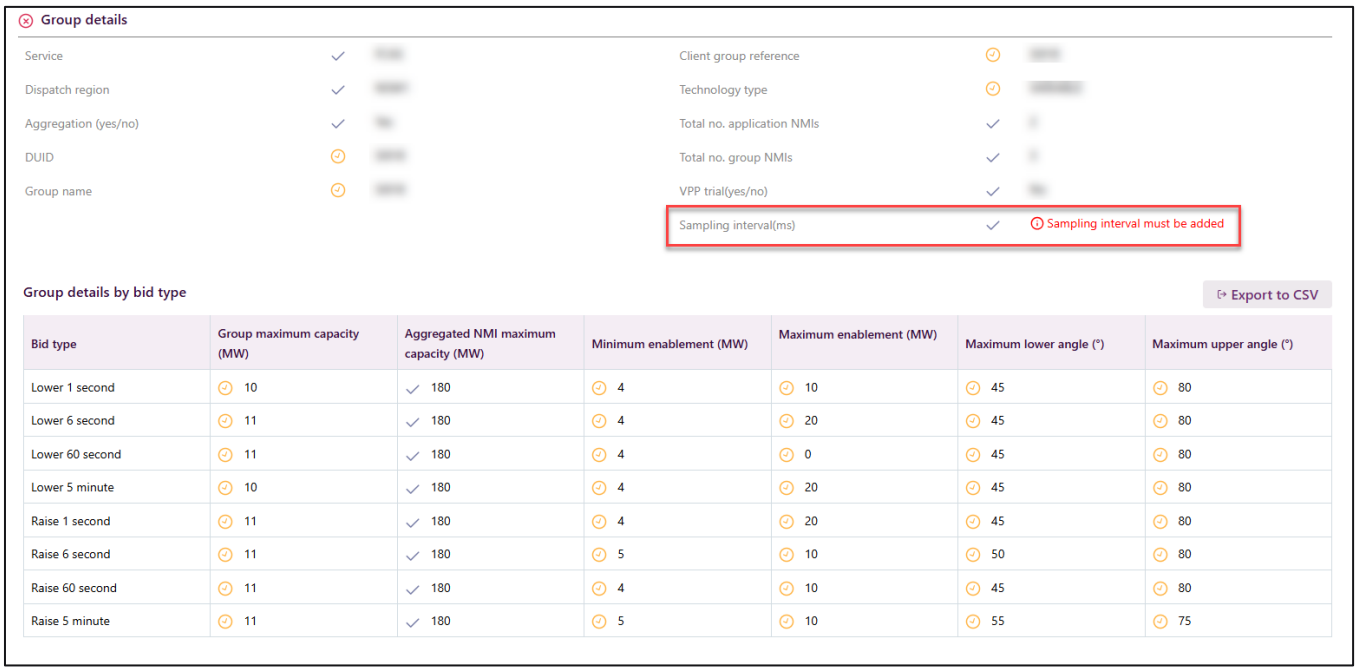


5.4 Sampling interval

A new **Sampling Interval** field is introduced to the PMS interface in the application screen. It is the rate (in milliseconds) at which the system collects data from a unit. This field is visible to participants during application validation.

If the sampling interval is not selected or set to a non-integer value, the system blocks saving and displays an error message. Participants cannot modify this field. If this error appears, the issue must be resolved by AEMO before the application can proceed.





Bid type	Group maximum capacity (MW)	Aggregated NMI maximum capacity (MW)	Minimum enablement (MW)	Maximum enablement (MW)	Maximum lower angle (°)	Maximum upper angle (°)
Lower 1 second	10	180	4	10	45	80
Lower 6 second	11	180	4	20	45	80
Lower 60 second	11	180	4	0	45	80
Lower 5 minute	10	180	4	20	45	80
Raise 1 second	11	180	4	20	45	80
Raise 6 second	11	180	5	10	50	80
Raise 60 second	11	180	4	10	45	80
Raise 5 minute	11	180	5	10	55	75

5.5 Declaration text changes

Updated declaration texts appear in both FCAS and WDR applications, so participants acknowledge obligations before submission (when you select **Create application**). Declarations appear at two points in the process for WDR and FCAS:

1. Declaration text at the time of application CSV upload.
2. Declaration text when progressing an application from draft to initial assessment (using **Create Application**).

The additional declarations listed below apply only to the second stage (progressing from draft to initial assessment).

For FCAS applications the following declarations are added to the current list:

- You acknowledge by enabling **automatic declassification** for your FCAS group or portfolio, any NMI that becomes ineligible after classification is automatically removed from your group or portfolio.
- You acknowledge by enabling **automatic removal** for this application, any new unclassified NMI becomes invalid during the assessment process and is removed automatically from the application.
- You acknowledge by submitting an application to classify a plant as an ancillary service unit incurs a fee under **AEMO's Energy market fees and charges**. When you submit the application by selecting the **Create Application** button, AEMO generates and sends an invoice. You are liable for payment regardless of the outcome, including if you withdraw the application.

For WDR applications the following declaration are added to the current list:

- You acknowledge by submitting an application to classify a plant as a wholesale demand response unit incurs a fee under **AEMO's Energy market fees and charges**. When you submit the application by selecting the **Create Application** button, AEMO generates and sends an invoice. You are liable for payment regardless of the outcome, including if you withdraw the application.

6 FAQs

TBC

7 Implementation

7.1 Transition

There is no transition required for this release.

7.2 Upgrading

There is no upgrade required for this release.

7.3 Implications

N/A

7.4 Risks

TBC

8 Terms

8.1 Rules Terms

You can find the following terms defined in the **National Electricity Rules (NER)**

Term
AEMO
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
Maximum Units

8.2 Glossary

You can find a full list of AEMO glossary terms in **Industry Terminology** on AEMO's website.

Abbreviation/Term	Explanation
EMMS	Electricity Market Management System; software, hardware, network and related processes to implement the wholesale energy market
FCAS	Frequency Control Ancillary Services
FRMP	Financially Responsible Market Participant
MSUG	Market Systems User Group
NER	National Electricity Rules
NMI	National Metering Identifier
PMS	Portfolio Management System
Release	EMMS - Technical Specification – September 2025
Release Dates	Pre-production: Wednesday 3 September 2025 Production: Wednesday 24 September 2025
TBC	To be confirmed
WDR	Wholesale Demand Response

9 References

Application guide	**Guide for Demand Response Service Provider - NEM - change or classify new Wholesale Demand Response Units**
Application Guide	**Guide for Market Customers and Integrated Resource Provider - NEM - change or classify new Non-Scheduled - Ancillary Service Unit**
Application guide	**Guide to Registering as a Demand Response Service Provider in the NEM**
Guidelines	**Wholesale Demand Response Participation Guidelines**
Policy document	**WDRM - Baseline Eligibility Compliance and Metrics Policy**
Specification	**Market Ancillary Services Specification and FCAS Verification Tool**
Application guide	**Register as a Customer or Integrated Resource Provider in the NEM**
Application guide	**Register as a Generator in the NEM**

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A1. Version history

No version history, this is the initial draft release.