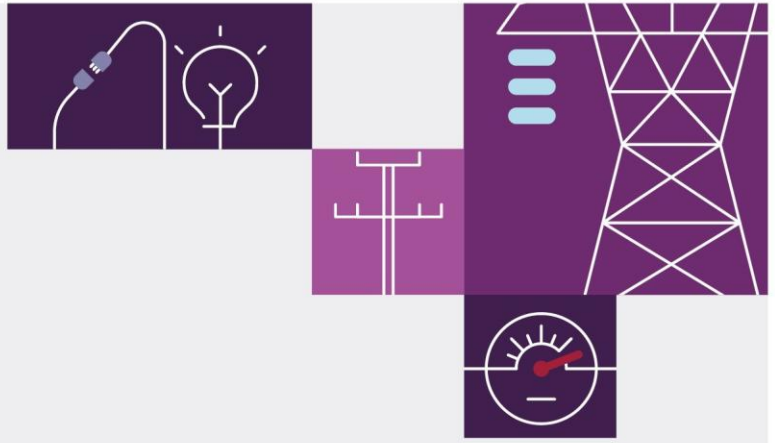


# NEM Reform Program Initiative Briefs

October 2025

A reference document for initiatives captured in the NEM  
Reform Implementation Roadmap Version 7





# Important notice

## Purpose

The purpose of this publication is to provide further information on initiatives captured in version 7 of the NEM Reform Implementation Roadmap, including key AEMO strategic or foundational initiatives, to help inform stakeholders understanding of the scope, assumptions and relationships underpinning each of the initiatives.

## Disclaimer

The information in this document is provided for explanatory purposes and may be subsequently updated or amended. This document 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 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:

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## Version control

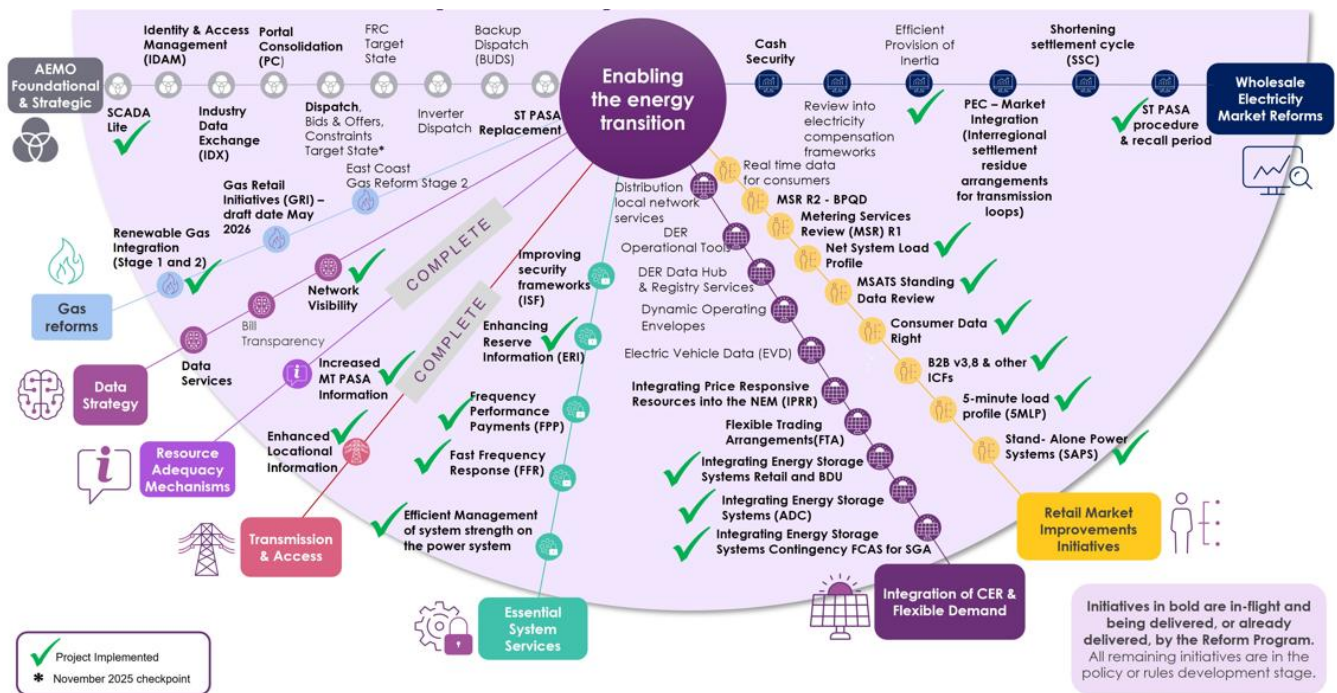
Version	Release date	Changes
1	27/04/2022	Initial publication
1.1	28/04/2022	Update to initiative briefs in line with NEM Reform Implementation Roadmap
2	31/08/2022	Update to initiative briefs to update initiative scope, including removal of four initiatives (Operational Decision-Making Tools, Operational Data Store, Business Rules Engine and Forecasting Platform Uplift) and addition of two initiatives (Capacity Mechanism and Congestion Management Mechanism).
3	27/04/2023	Update to initiative briefs to reflect current scope and timing. Removal of Turn-up Services brief following de-scoping from the NEM Reform Program.
4	05/10/2023	Update to initiative briefs to reflect current scope and timing including the following initiatives 2.2, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 6.1, 6.2, 6.3, 6.4, 7.1, 7.2, 7.3, 8.1, 8.4.
5	15/12/2023	Update to initiative briefs to reflect current timing including the following initiatives 2.2, 3.3,3.4, 5.2,5.3.
6	30/04/2024	Restructure and/or update of all information briefs to reflect current scope and timing.
7	31/10/2024	Restructure and/or update of all information briefs to reflect current scope and timing. Inclusion of additional wholesale and retail electricity reform initiatives not originally captured at the time of the Program's establishment.
8	30/04/2025	As above.
9	21/10/2025	As above.

# NEM Reform Program

The NEM Reform Program (the Program) was established by AEMO in 2022 to collaborate with energy industry participants on the implementation of reform initiatives across Australia’s east coast electricity and gas markets, as well as the delivery of key foundational and strategic initiatives that uplift AEMO’s base capability on which reforms are dependent.<sup>1</sup> Initially centred around the ESB’s post-2025 electricity market design, the breadth of reforms aim to address essential change in a world of expanding consumer choices, new technologies, large-scale capital replacement, as well as key actions to support a more secure, resilient and flexible gas market.

The Program is a large-scale, complex, industry-wide program, impacting participants across all areas of the NEM. Each initiative that makes up the Program’s scope supports the transition of the NEM and brings Australia closer to a net-zero future. To manage the implementation of this significant package of reforms and to deliver the best possible outcomes for consumers, the Program works collaboratively with industry participants from across the energy sector. Specifically, the Program provides opportunity to not only support industry stakeholders through the implementation of reforms but importantly facilitates the design of effective solutions that meet the reform objectives and prioritise their deployment, ensuring efficient delivery with the least-cost and lowest-risk outcomes.

Figure 1. NEM Reform Program Scope



## NEM Reform Implementation Roadmap

AEMO, in collaboration with the Reform Delivery Committee (RDC, or the Committee), has compiled and maintains the NEM Reform Implementation Roadmap (the Roadmap) which details an integrated timeline for implementing the reform

<sup>1</sup> AEMO NEM Reform Program. Website: <https://aemo.com.au/initiatives/major-programs/nem-reform-program>



initiatives that comprise the ESB’s Post-2025 recommendations, as well as broader NEM and east coast gas related reform initiatives that collectively make up the Program. <sup>2,3</sup>

The purpose of the Roadmap is to provide AEMO and stakeholders with a holistic view of the reform program impacting electricity and gas markets across the east coast of Australia. It does so by bringing together AEMO's former Regulatory Implementation Roadmap, NEM2025 Implementation Roadmap and East Coast Gas Reform Implementation Roadmap into one central Roadmap. In doing so, it aims to establish a basis upon which to navigate the breadth of the reforms over the coming few years, de-risking delivery, seizing opportunities to take cost out, as well as and inform implementation timing.

## Initiative Briefs

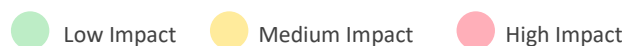
This reference document provides a brief description of each of the inflight<sup>4</sup> or anticipated electricity reform initiatives, as well as AEMO’s own foundational or strategic enabling initiatives<sup>5</sup> that are captured within the Program to help stakeholders understand the scope, assumptions and relationships (refer to appendix) underpinning the Roadmap.

Each initiative brief aims to provide an understanding of the problem statement a reform is seeking to address, the proposed solution and its key benefits, including the known or indicative scope changes proposed. In addition to this, each initiative brief provides a high-level assessment of impacts to market and industry stakeholders and AEMO teams, next steps in the reforms development and where stakeholders may access further information.

In setting out the changes to be implemented or proposed, AEMO has sought to provide stakeholders with an understanding of the Procedures & Guidelines, Market Application and Market Interface changes required as per the table below.

Procedures & Guidelines	Market Applications	Market Interfaces
• Example	• Example	• Example

In setting out the indicative impacts to market and industry stakeholders and AEMO teams, a rating has been applied of low, medium, or high based on RDC and participant feedback, as well as AEMO’s own assessment of the change impacts as shown below. For those initiatives with impacts across multiple AEMO teams, AEMO has referenced the highest rating impact. Where the impacts are not known, AEMO has called out those participants likely to be impacted based on current designs or assumptions underpinning each initiative.



The details of each initiative are subject to change arising from further policy work or further analysis. As such, each initiative brief is to be revised periodically to reflect changes in scope or timelines as policy or designs are finalised or as new rule determinations are made.

<sup>2</sup> AEMO NEM Reform Implementation Roadmap. Available here: <https://aemo.com.au/en/initiatives/major-programs/nem-reform-implementation-roadmap>.

<sup>3</sup> The NEM2025 Implementation Roadmap has been integrated with the Regulatory Implementation Roadmap and East Coast Gas Reform Implementation Roadmap to form the NEM Reform Implementation Roadmap.

<sup>4</sup> Initiatives which have reached a final rules determination or final policy outcome and are now mandated for implementation.

<sup>5</sup> Foundational initiatives represent an investment in an AEMO legacy system to deliver an uplift to base capability on which reforms are dependent. Strategic initiatives represent an investment where system uplift is required at some time in the future and AEMO sees the opportunity for this life-cycle type investment to be brought forward and delivered in the same timeframes as the reforms for efficiency purposes.

## Updates made as of October 2025

All initiative briefs have been updated for changes in scope and/or timing to reflect the latest publicly available information. The following table highlights the initiatives briefs removed or included in alignment with version 7 of the NEM Reform Implementation Roadmap.

<b>Initiative</b>	<b>Changes to this report</b>
<b>SCADA Lite</b>	Removed – SCADA Lite commenced 15 May 2025
<b>Frequency Performance Payments</b>	Removed – FPP commenced 8 June 2025
<b>ST PASA procedure and recall period</b>	Removed – ST PASA Procedure commenced 31 July 2025
<b>Network Visibility</b>	Removed – AER have completed the review and published final recommendations report
<b>Real-time data for consumers</b>	Included – Draft High-Level Implementation Assessment published 16 October 2025



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# Essential System Services

Enhancing Reserve Information  
Improving security frameworks for the  
energy transition



# Enhancing Reserve Information

*Providing transparency through information about available generation reserves in the NEM.*

## Problem to be solved

There is growing forecast uncertainty and variability in net demand over operational timeframes, contributed to by growing variable renewable energy (VRE) penetrations, weather, participant availability, commitment decisions, storage depth, and coordination of distributed energy resources.<sup>6</sup> At the same time, the nature of reserves is evolving, with greater reliance on energy-limited plant.

## Solution

The AEMC's final rule determination<sup>7</sup>, published 21 March 2024, sets out to increase transparency of energy availability in an operational timeframe through publication of the following:

- State of charge: the energy availability of batteries (i.e., state of charge in MWh) will be published close to real-time, aggregated by region, and the following trading day by dispatchable unit identifier (DUID) to align with existing post-trading day publications.
- Daily energy constraints: the combined energy constraints of other energy-constrained plant (hydro, gas and coal) would be aggregated by region and published daily (at the start of each trading day).
- Maximum storage capacity: storage participants would need to provide their maximum storage capacity (MWh) to AEMO in their bid and offer validation data.

These incremental improvements are to support the current market frameworks and provide for the opportunity to observe the future generation fleet's response to changes in market signals. The commencement of the new provisions is as follows:

- 1 July 2025:
  - Publishing state of charge information for batteries, at the DUID level, for each trading interval in respect of the previous trading day.
  - Publishing daily energy limits (total availability) for scheduled generators aggregated by region, at the start of each trading day
  - Scheduled bi-directional units (BDUs) to provide maximum storage capacity as part of their bid validation data
  - Publishing aggregated state of charge information for batteries close to real time as practicable, but at least once in each trading interval (TI) in regions with at least three independent operators of such facilities.

## Essential System Services

### Key Dates

- Final Determination - 21 MAR 2024
- AEMO High Level Implementation Design - 12 JUL 2024
- Go-live for NEM (except Tas) - 1 JUL 2025
- Go-live for Tasmania by 1 July 2027

<sup>6</sup> AEMO Engineering Framework 2022, AEMO Integrated System Plan 2022, AEMO Renewable Integration Study 2020.

<sup>7</sup> AEMC National Electricity Amendment (Enhancing reserve information final determination) Rule 2024. 21 March 2024. Available here: <https://www.aemc.gov.au/sites/default/files/2024-03/Enhancing%20reserve%20information%20final%20determination.pdf>

- 1 July 2027: Publishing aggregated state of charge information for batteries for Tasmania. This will be undertaken as a business scheduled activity.

## Key benefits

The provision of additional information on energy availability to better ensure the availability of reserves across all timeframes and allow more efficient decisions about the commitment of reserves. For example, supporting participants to better manage their reserve availability to address shorter-duration flexibility issues.

## Changes to be delivered

AEMO publishes information on energy availability in the operational timeframe, including state of charge and daily energy constraints for the NEM (except Tasmania), with changes to be applied to Tasmania by 1 July 2027.

Procedures & Guidelines	Market Applications	Market Interfaces
<ul style="list-style-type: none"> <li>• Registration Guide and Application Form</li> <li>• New element, Maximum Storage Capacity will be added to Schedule 3.1 Bid Validation Data guideline</li> <li>• Amendment to the Pre-dispatch Region Solution table in SCADA</li> </ul>	<ul style="list-style-type: none"> <li>• Changes to EMMS Participant Data Model - to publish aggregated energy availability data (for units other than batteries) the field DEC_Residual_Energy is added to tables</li> <li>• Changes to NEM Reports - state of charge data added to NextDay.UnitSolution table; new report to the Next Day reporting event to publish aggregated energy availability data (for units other than batteries); amendment to the conditions currently placed on concealing real-time state of charge data</li> <li>• Amendment to the Participant Registration tables in MMS Data Model</li> </ul>	<p>Reporting of:</p> <ul style="list-style-type: none"> <li>• Maximum storage capacity - PARTICIPANT_REGISTRATION tables in MMS Data Model (similar approach to the publication of existing bid validation data).</li> <li>• Daily energy constraints - new column in the existing Pre-dispatch Region Solution table in SCADA.</li> <li>• State of charge the next day - publish by DUID the following trading day (to align with existing post-trading day publications).</li> <li>• State of charge real time – publish actual state of charge after each Dispatch run via the participant data model DISPATCHREGIONSUM table in SCADA (this information already currently provided by participants through SCADA).</li> </ul>

Further details on the changes proposed are available via the ERI page of AEMO’s website [here](#).

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

- Generators (Scheduled)
- Integrated Resource Providers

### AEMO Teams

- Operations (Operational Support (Electricity Market Modelling, Operations Planning))
- Digital (Enterprise Application Services (Wholesale Solutions))

## Next steps

- Rule commencement with first changes implemented by 1 July 2025, Tasmania go-live on 1 July 2027 for final changes.



### **Where can I find more information?**

AEMC Enhancing Reserve Information: <https://www.aemc.gov.au/rule-changes/enhancing-reserve-information-formerly-operating-reserves>

AEMO NEM Reform Program – Enhancing Reserve Information: <https://aemo.com.au/en/initiatives/major-programs/nem-reform-program/enhancing-reserve-information-project>

# Improving security frameworks for the energy transition

*Improve existing security frameworks to deliver essential system services, through the energy transition.*

## Problem to be solved

Essential system services (ESS)<sup>8</sup> are critical to maintaining overall power system security and reliability by meeting core power system requirements. While historically synchronous generators (such as large coal, gas and hydro generators) supplied ESS simply as a by-product of energy, new non-synchronous generators (such as solar PV, wind and batteries) do not automatically provide these services.

Consequently, under the current market design, which does not explicitly value all ESS, the changing generation mix is providing fewer of these services. Further engineering understanding is required to determine the appropriate mix, definition and quantification of the services. There is also a need to co-ordinate the resources providing these security services, accounting for all services that they may provide.

As a result, AEMO is increasingly making operational decisions, such as directing generators to be online to support a secure power system. Directions were designed as a last resort — reliance on them increases costs to consumers, and also places increased risk on system security.

## Solution

The AEMC's final rule determination published 28 March 2024 sets out various changes to improve existing security frameworks, including:

- aligning the existing inertia and system strength frameworks (introducing a NEM-wide inertia floor, aligning procurement timeframes with the system strength framework, and removing restrictions on the procurement of synthetic inertia);
- removing the exclusion to procuring inertia network services and system strength in the Network Support and Control Ancillary Services (NSCAS) framework;
- adjusts TNSP cost recovery procedures for non-network security options to support contracting arrangements and minimise volatility for electricity consumers;

## Essential System Services

### Key Dates

- Final Determination - 28 MAR 2024
- AEMO High Level Implementation Assessment V0.1 - 31 MAY 2024
- Transitional Services Framework commences - 3 JUN 2024
- Improved Directions Transparency implemented - 4 JUL 2024
- AEMO High Level Implementation Assessment V0.2 & 0.3 – 12 DEC 2024 & 17 APR 2025
- Release 1.0 – DEC 2025
- Release 1.1 – AUG 2026

<sup>8</sup> These are services that help keep the technical parameters of the electricity system within acceptable limits so that it can securely deliver electricity to consumers. These include a suite of services such as inertia, system strength and frequency.

- creating a new transitional non-market ancillary services (NMAS) framework for AEMO to procure security services necessary for the energy transition;
- requiring AEMO to enable (or ‘schedule’) security services with a whole-of-NEM perspective;
- changing the directions reporting framework; and
- introduces a new annual reporting requirement on AEMO (known as the ‘Transition plan for system security’).

## Key benefits

The AEMC’s final determination highlights the following benefits of the rule change:

- Enhancements to the existing procurement frameworks and expansion to include the transitional NMAS services framework, combined with AEMO’s operational enablement, should improve AEMO’s ability to maintain power system security.
- Procurement of security services provides consumers with better assurance that power system security needs will continue to be met through the transition.
- Should reduce market interventions to maintain system security and improves transparency for participants (plants) that are providing these services.
- The final rule amends existing frameworks, systems and understandings of the power system to keep costs and complexity as low as possible.
- The rule makes a number of improvements to promote transparency and predictability of system security needs and the frameworks to meet these needs.

## Changes to be delivered

The final rule places a complex set of obligations on AEMO to schedule resources that are contracted for system strength, inertia, NSCAS and transitional services.

AEMO is implementing its enablement obligations across two releases to manage delivery complexity:

- Release 1.0 (2 December 2025): Delivers system-initiated manual enablement functionality. This includes a new System Security Management (SSM) interface in the Markets Portal, enabling providers to manage their security service availability and receive enablement instructions. Also supports automated backend processing of system security enablement and automated reporting functions aligned with AEMO’s new obligations under the NER.
- Release 1.1 (August 2026): Delivers a fully automated system security scheduling solution and processes for enabling stable voltage waveform (efficient level of system strength to support inverter-based renewables), as well as other non-core functionalities and enhancements.

The table below sets out a high-level scope for the initiative which is subject to industry consultation as required. The final rule determination makes consequential changes to several procedures and documents and introduces new procedures and guidelines. Details of all procedure changes, initial solution design and system impacts including market interfaces is available in AEMO’s High Level Implementation Assessment (HLIA) v0.3.



Procedures & Guidelines	Market Applications	Market Interfaces
<p>New procedures and guidelines:</p> <ul style="list-style-type: none"> <li>Final Security Enablement Procedure - published 18 Aug 2025</li> <li>Transitional services guideline, Transition plan for system security – published 1 Dec 24</li> </ul> <p>Updates to existing procedures and guidelines (sample only):</p> <ul style="list-style-type: none"> <li>Inertia Requirements Methodology</li> <li>NSCAS Description and Quantities procedure</li> <li>Constraint Formulation Guidelines</li> </ul>	<p>AEMO to develop a tool or system for enablement which:</p> <ul style="list-style-type: none"> <li>identifies system security needs close to operational time.</li> <li>decides which is the lowest-cost set of security contracts to meet these needs.</li> <li>communicates enablement decisions to participants.</li> </ul> <p>For more detail refer to AEMO’s HLIA.</p>	<ul style="list-style-type: none"> <li>AEMO’s existing Markets Portal platform</li> <li>AEMO’s existing Data Interchange (including Participant Data Replication (PDR) tool)</li> <li>APIs made available to participants</li> <li>AEMO will publish public reports on AEMO’s website as per current process.</li> </ul> <p>For more detail refer to AEMO’s HLIA.</p>

Further details on the changes proposed are available via the ISF page of AEMO’s website [here](#).

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

- Generators (Scheduled and Semi-Scheduled)
- Integrated Resource Providers
- Transmission Network Service Providers

### AEMO Teams

- Operations (Energy Market Modelling, Systems Capability, NEM RTO, Settlements & Prudentials)
- Digital (Enterprise Architecture, Enterprise Application Services (Wholesale Solutions))
- System Design (Planning, Engineering, Registrations)

## Next steps

- For release 1.0: Market trial to commence 27 October 2025 to 18 November 2025, followed by extended support period through to end Feb 2026. Go-live scheduled for 2 December 2025.
- Release 1.1: further automation by August 2026

### Where can I find more information?

AEMC Improving Security Frameworks for the Energy Transition: <https://www.aemc.gov.au/rule-changes/improving-security-frameworks-energy-transition>

AEMO NEM Reform Program – Improving Security Frameworks for the Energy Transition: <https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/improving-security-frameworks-for-the-energy-transition>

# Integrating DER and Flexible Demand

Unlocking CER benefits through flexible trading  
Integrating price responsive resources into the NEM  
Dynamic Operating Envelopes  
Distribution Local Network Services  
CER Data Exchange  
DER Operational Tools



# Unlocking CER benefits through flexible trading

*Establishing flexible trading arrangements to help consumers realise additional value from their customer energy resources.*

## Problem to be solved

There are material barriers which prevent or deter customers from accessing services which separate active, price-responsive resources from passive loads, so that they can be aggregated and traded in the market. For example, the establishment of second connection points to the Distribution Network Service Provider (DNSP) network are often blocked via DNSP's policy or costs, upfront and ongoing. Customers are prevented from obtaining competitive products and services for Consumer Energy Resources (CER), and CER is less able to actively participate in the market.

## Solution

Flexible trading arrangements enable the separation of controllable electrical resources (e.g., battery, solar system and electric vehicle charging) from passively connected electrical resources (e.g., household lighting and general appliances) in an end user's home or business. The AEMC's final determination provides new, voluntary arrangements supporting the use and integration of flexible CER in the NEM, covering the areas below:

- Flexible trading with multiple energy service providers at large customer premises – the framework aims to leverage arrangements used under the current embedded network framework (voluntary, no regulated contractual relationship between financially responsible market participant (FRMPs) and there is a secondary settlement point (SSP) and subtractive settlement).
- Opportunities to optimise CER flexibility for small customers – establishment of a SSP(s) at small customer premises, while maintaining existing consumer protections. Provides the opportunity for household and small business to use their CER assets to generate, consume, store, and trade energy.
- Enabling innovation in metering technology to enable cost effective NEM connections where traditional metering cannot be accommodated (such as streetlighting and kerbside EV charging points). This innovation extends to SSPs, enabling simpler forms of metering CER within a customer's premises,
- A new accredited role, the NMI Service Provider will be responsible for creating NMIs at SSPs and maintaining the relevant standing data.

## Key benefits

The unlocking CER benefits through flexible trading initiative seeks to:

### Integrating DER and Flexible Demand

#### Key Dates

- Final Determination - 15 AUG 2024
- AEMO Final Report - 30 SEP 2025
- Type 9 metering installations Go-live - 31 MAY 2026
- Full reform Go-live - 1 NOV 2026

- Provide large customers with increased choice from greater competition as energy providers could offer prices or incentives for these customers to operate their flexible load at lower cost. Reduced barriers to entry for traders of CER that can help consumers obtain value from their CER assets or their flexible demand through participation in the wholesale market .
- Via the management of controllable resources, provide a market-driven response to issues affecting the energy system, such as minimum system load and provide direct benefits to the customer.
- Via the new metering types, encourage the deployment of public services such as smart street lighting and kerbside EV charging, and the adoption of SSPs via the flexible trading arrangements.

## Changes to be delivered

The table below captures the main changes identified in AEMO’s final high-level implementation plan.

Procedures & Guidelines	Market Applications	Market Interfaces
Consultation and updates to various procedures including: <ul style="list-style-type: none"> <li>• MSATS Procedures</li> <li>• Metrology Procedures</li> <li>• Service Level Procedures</li> <li>• B2B Procedures</li> <li>• Registration documentation</li> </ul> New procedure: Service Level Procedure – NMI Service Provider	High level system impacts include: <ul style="list-style-type: none"> <li>• MSATS CATS (Change request process and new attributes to support SSP, new metering installation Type Codes, changes to various displays, new SDQ reports)</li> <li>• eMDM (Profile Allocation Engine, Settlement Allocation)</li> <li>• B2B (aseXML schema changes)</li> <li>• B2M (Support new B2M aseXML_r4(n) schema, Standing Data and Metering data access for DNSP’s to child SSP)</li> <li>• Portfolio Management (New Validation of premises with SSP are ineligible for WDR)</li> <li>• Integration (aseXML Schema changes to include SSP attributes. Transformation and management of schema versions for B2B and B2M data exchange.)</li> <li>• AEMO provided software (B2B validation module, Participant Batchter, PDR Suite)</li> <li>• Capacity (Increased transaction volumes expected based on the estimated additional SSP devices added per year.)</li> </ul>	<ul style="list-style-type: none"> <li>• B2M and B2B Retail payload formats for current exchange mechanisms.</li> <li>• Updates required throughout the MSATS Browser UI to reflect the additional fields added to CATS to support Secondary Settlement Points.</li> <li>• Reports impacted – Snapshot, CATS and SDQ Reports.</li> <li>• API – B2M &amp; B2B updates to aseXML schema</li> <li>• MSATS Data Model Impacts – Additional attributes to record CP and SSPs in a PMA arrangement.</li> <li>• Schema Impacts to aseXML (B2M, B2B) and DERR.</li> </ul>

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

- Local Network Service Providers / Embedded Network Managers
- Market Customers / FRMPs (retailers or aggregators)
- NMI Service Provider
- Metering Providers
- Metering Data Providers and Metering Coordinators

### AEMO Teams

- Operations (Metering)
- Digital (Retail Solutions)



## Next steps

- Type 9 metering installations (street furniture) to be implemented by 31 May 2026 with the rest of the reform implemented by 1 November 2026.

### Where can I find more information?

AEMC Rule Change Unlocking CER benefits through flexible trading: <https://www.aemc.gov.au/rule-changes/unlocking-CER-benefits-through-flexible-trading>

AEMO NEM Reform Program – Unlocking CER benefits through flexible trading : <https://aemo.com.au/en/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/flexible-trading-arrangements>

# Integrating price responsive resources into the NEM

*Establishing a voluntary mechanism to incentivise price-responsive resources to participate in the market scheduling process of the NEM.*

## Problem to be solved

The forecast rapid growth in distributed resources, particularly those owned by household and business consumers, is drastically changing the energy landscape of the NEM. These resources are increasingly being aggregated into large portfolios and operated in response to price signals in a manner that is not visible to the market operator; that is, they currently operate outside the NEM dispatch and scheduling processes. This creates a range of operational challenges for AEMO for which its existing toolkit was not designed, particularly in managing complex operational conditions. The resources are also unable to participate in some services that are available to scheduled resources, such as regulation frequency control ancillary services (FCAS), limiting the value that customers can receive for their consumer energy resources (CER).

## Solution

Integrating price responsive resources (IPRR) into the NEM will establish a voluntary mechanism to incentivise price-responsive, distributed resources to participate in market scheduling and dispatch processes of the NEM. The AEMC's final determination establishes:

- A "Dispatch mode" framework that allows currently unscheduled price-responsive resources to be scheduled and dispatchable in the NEM, typically in aggregation. Resources could be nominated as a voluntarily scheduled resource (VSR) and aggregated together to participate in dispatch as one unit.
- A time-limited incentive scheme to drive participation in the mechanism in its early years. This involves allowing AEMO to conduct tenders to pay participants to enter dispatch mode in accordance with the 'VSR Incentive Mechanism Procedure'.
- Monitoring and reporting obligations for AEMO and the AER to transparently evaluate the effect of unscheduled price-responsive energy resources on operational demand forecasting processes and market outcomes.

## Integrating DER and Flexible Demand

### Key Dates

- Final Determination – 19 DEC 2024
- AEMO HLIA v1.1 - 20 MAR 2025
- Go-live - 23 MAY 2027

## Key benefits

Potential benefits from IPRR:

- Dispatch costs in the NEM – knowing when these resources will be used to reduce demand (particularly at higher cost times) improves demand forecasting and reduces the cost of resources that AEMO dispatches to meet demand.
- Energy prices in the NEM – by better matching supply and demand, the price of energy will likely be more efficient.
- Cost of security of supply in the NEM – by reducing the need for additional, potentially more expensive generation reserves to balance the market, system security will likely be achieved at lower cost.
- Reliability of supply in the NEM – the ability to schedule these available resources should improve planning and the use of lower-cost, lower-emission generation and lower intervention costs.
- Operation of distribution and transmission networks – longer-term accurate forecasts will likely improve network investments and planning, reducing network costs to consumers.

## Changes proposed

AEMO’s final HLIA outlines the proposed system, data exchange, process and operational changes and the indicative timeline that required to give effect to the IPRR rule. The table below captures the main changes identified in AEMO’s high-level implementation assessment v1.1.

Procedures & Guidelines	Market Applications	Market Interfaces
<p>New procedures and guidelines:</p> <ul style="list-style-type: none"> <li>• Voluntary scheduled resources (VSR) guidelines</li> <li>• AEMO price responsive reporting guidelines</li> <li>• VSR incentive procedure</li> </ul> <p>Updates will be required to a wide range of existing procedures and guidelines. Refer HLIA for details.</p>	<p>Implementing IPRR will involve changes to many AEMO systems. Of these, the following are most impacted:</p> <ul style="list-style-type: none"> <li>• Portfolio Management (PMS) - significant uplift in system usability and capability is required to support VSR activities.</li> <li>• Settlements, Billing &amp; Payments – <ul style="list-style-type: none"> <li>– Exclusion of VRSPs from the RERT cost recovery calculation</li> <li>– VSRs are excluded from the Contribution Factor calculation for FPP, but to be included in the Residuals</li> <li>– Calculation of VSR participation payments and associated VIM cost recovery</li> </ul> </li> <li>• Demand Forecasting - The stop/start nature of telemetry from VSRs during hibernation will require either manual work to keep models up-to-date or complex logic to deal with the conditional treatment of these inputs to produce accurate forecasts.</li> </ul> <p>Refer to HLIA for the remaining system changes.</p>	<ul style="list-style-type: none"> <li>• Potential changes to various packages of the MMS Data Model.</li> <li>• Likely impacts to EMMS technical specification and EMMS Data Model technical specification.</li> <li>• Impacts to MSATS technical specification only if further assessment reveals a need to change customer churn processes.</li> <li>• Schema Impacts <ul style="list-style-type: none"> <li>– The current Bidding JSON Schema and Web Bidding interfaces are enhanced to allow VSRPs to be able to provide “DailyEnergyConstraint” values in their ENERGY Bids using the current BDU bid structure, for their Gen only or Load only VSR aggregation.</li> <li>– “Web NEM Display” screens are enhanced to include region aggregated VSR data into Dispatch, Pre-Dispatch, Dispatch AS and Predispatch AS summations per region.</li> </ul> </li> </ul>

Further details on the changes proposed are available via the IPRR page of AEMO’s website [here](#).

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

- Market Participants opting to participate in IPRR (may include Retailers/Market Customers with VPP and aggregation activities, Generators and Integrated Resource Providers with eligible qualifying resources in their portfolio)
- TNSPs and DNSPs

### AEMO Teams

- Operations (Planning, Forecasting, Electricity Market Monitoring, Settlements)
- System Design (Registrations)
- System Design (Forecasting, Planning)
- Digital (Cloud, Platforms, Infrastructure & Networks), Cyber Security, Strategy, Insights & Architecture, Enterprise Application Services)

### Next steps

- The commencement of IPRR is staged with the monitoring and reporting framework commencing 1 January 2026, the VSR incentive mechanism commencing 1 April 2026 (and operating until 30 December 2031) and dispatch mode (go-live) commencing 23 May 2027.
- Completion of consultation processes underway on a number of major new IPRR documents over calendar year 2025: (1) final VSR Guidelines and report to be published on 27 November 2025 (2) the final VSR incentive mechanism procedure and determination to be published on 27 October 2025 and (3) Price Responsive Reporting Guidelines to be published on 10 December 2025.
- AEMO system design is planned to commence from November 2025.

### Where can I find more information?

AEMC Rule Change Integrating Price Responsive Resources into the NEM: <https://www.aemc.gov.au/rule-changes/integrating-price-responsive-resources-nem>

AEMO NEM Reform Program – Integrating Price Responsive Resources into the NEM: <https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/integrating-price-responsive-resources-into-the-nem>

# Dynamic Operating Envelopes

*Setting export and import limits dynamically to better manage distribution network utilisation and congestion.*

## Problem to be solved

There is a need for a system-wide standard to manage the bi-directional energy flows into the NEM from CER to help manage known issues across the power system such as (but not limited to) minimum system load and local congestion. At present, these limits are static (or fixed) which is likely to result in lower export limits for newer connections as networks become increasingly congested. Dynamic limits have the potential to better manage congestion on the distribution network and allow for more flexibility in exporting. These are referred to as dynamic operating envelopes (DOEs) that provide upper and lower bounds on the import and export of power during a given time interval.

## Solution

To date, DOEs have been considered through a number of industry trials and market reviews including by AEMO (Project EDGE, Project Symphony), market reviews (DEIP DOE Whitepaper, Distributed System Planning Interface, Review of the Regulatory Framework for Metering Services). Further, certain DNSPs have started deploying DOEs as flexible export limits (FELs) across different jurisdictions (QLD, SA, WA). The Australian Energy Regulator (AER) has published its final guidance note for FELs, intended to provide clarity on policy objectives and design principles for DNSPs when implementing and using FELs as a tool for managing network congestion and increasing available hosting capacity.

Implementing DOEs as a mandatory requirement for all new CER connecting to the grid would require the coordination of several key reforms, including:

- Establishing new connection agreements with customers that refer to these dynamic limits, and the obligations of the customer, via the retailer / aggregator to maintain these limits.
- The development of capacity allocation principles on how to fairly allocate these limits to different customers at times when constraints are required.
- New obligations on the retailer / aggregator to operate CER within these limits, where they are operating CER on behalf of customers.
- Creating new standards for interoperability and cyber security so that CER devices communicate in a standard manner, support a simple process to switch from one provider to another, and enable any provider to ensure conformance with DOEs.

**Integrating DER and Flexible Demand**

**CER Roadmap: P.1. Enable consumers to export and import more power to and from the grid**

### Key Dates

- Publication of National CER Roadmap - 19 JUL 2024
- AER Final Export Limit Guidance Note - OCT 2024
- Publication of National CER Roadmap consultation papers (M3/P5 and M2)- 9 JULY 2025
- National CER Roadmap Update/Implementation Plan – 15 AUG 2025

- Needing obligations to efficiently share DOEs with authorised parties via a common platform such as the CER Data Exchange.

On 19 July 2024 Energy Ministers agreed to publish the National CER Roadmap produced by the interjurisdictional CER Working Group established under the National Energy Transformation Partnership. DOEs have been captured in the CER Roadmap under National Reform Priority *P.1 – Enable consumers to export and import more power to and from the grid*. The development of DOEs in the future will be subject to outcomes of this work.

## Key benefits

There are various benefits that may be realised from the establishment of DOEs including increased network utilisation, improved coordination of access, improved CER optimisation, improved investment cases for network investment, efficient operation of the power system and market, and unlocking value for those customers with CER and broader cost-avoidant benefits to all consumers.

## Changes proposed

The project scope remains subject to ongoing policy development and design but may entail:

- Establishing DER technical standards (e.g., communications and interoperability)
- Developing capacity allocation rules, monitoring and compliance advice, and
- Establishing a connection agreement framework.

At this stage it is expected that AEMO’s scope of work is limited to the receipt and sharing of DOE related information.

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Impacts to market and industry stakeholders are to be determined and subject to final policy designs. Based on current designs / assumptions AEMO anticipate these impacts to be limited to DNSPs, retailers, aggregators and VPPs.

### AEMO Teams

Impacts to AEMO teams are to be determined and subject to final policy designs. Based on current designs / assumptions AEMO anticipate impacts to its Operational and System Design teams. AEMO’s exact level of involvement is subject to final scope.

## Next steps

- On 15 August 2025, Energy Ministers approved the first update to the CER Roadmap implementation plan<sup>9</sup>, noting fast track implementation of DOEs by network operators was on track for initial delivery by end of 2025. The implementation pathways and timelines vary by jurisdiction: SA, QLD, VIC completed; WA underway through Project Jupiter<sup>10</sup>; NSW and ACT planned and Northern Territory and Tasmania – to be scheduled (expecting to consider measures in the next DNSP regulatory reset timeframe).

<sup>9</sup> National CER Roadmap Update Report. August 2025. Available here: [National Consumer Energy Resources \(CER\) Roadmap Implementation Plan Update August 2025](#)

<sup>10</sup> In February 2025, the Western Australian Government and ARENA launched Project Jupiter, which is expected to accelerate the integration of new CER connected in the SWIS through virtual power plants from 2028.



### **Where can I find more information?**

DCCEEW National CER Roadmap: <https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/consumer-energy-resources-working-group/national-cer-roadmap>

AEMO Project EDGE Final Report (Chapter 4): <https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en>

AER Final Export Limit Guidance note: <https://www.aer.gov.au/system/files/2024-10/Export%20Limits%20Guidance%20Note.pdf>

# Distribution Local Network Services

*Efficient provision of local network service between DER aggregators and distribution system operators.*

## Problem to be solved

Large scale penetration of CER could be utilised by networks to defer, or displace network augmentations, and assist them in actively managing power flows on their network. Currently, however, DNSPs rarely procure services from CER and do so in bespoke bilateral contracts that lead to high transaction costs.

## Solution

To identify ways to make it easier for CER aggregators to trade local network support services with DNSPs / Distribution System Operators (DSOs), through greater visibility of local network constraints aligning the definitions of local services and how they are traded between regions.

On 19 July 2024 Energy Ministers agreed to publish the National CER Roadmap produced by the interjurisdictional CER Working Group established under the National Energy Transformation Partnership. Distribution Local Network Services align with National Reform Priority *M.3/P.5 – Redefine roles for market and power system operations* of the CER Roadmap. Future consideration of distribution local network services will be subject to the scope and outcomes of this work.

## Key benefits

Potential benefits from efficient provision of local network services may include increased network utilisation and potential deferral of network augmentation, improved CER optimisation, improved investment cases for network investment through being able to identify the cost of managing constrained parts of the network, efficient operation of the power system and market and unlocking value for those customers with CER and broader cost-avoidant benefits to all consumers.

## Changes proposed

The project scope remains subject to ongoing policy development and design but may entail:

- Development of guidelines to align the definition of local services and how they are traded (for instance via standardised bilateral contacts) between regions to make it easier for aggregators operating across regions to engage and deliver local network services for DNSPs as DER penetrations grow.

The guideline could also outline the information DNSPs should publish, over and above what is required in the Distribution Annual Planning Reports (DAPRs), in relation to network constraints and network service requirements, and how that information should be made available.


- Evaluation of how local services interact with DOE and dynamic network tariffs – for instance, networks could utilise DOE and dynamic tariffs in the first instance to manage power flows but could then procure a service to give them greater certainty when managing persistent constraints.

Integrating DER and Flexible Demand

CER Roadmap: M.3/P.5. Redefine roles for market and power system operations

### Key Dates

- Publication of National CER Roadmap consultation papers (M3/P5 and M2)- 9 JULY 2025
- Publication of National CER Roadmap - 19 JUL 2024



At this stage, one of the priority use cases for the upcoming CER Data Exchange initiative is exploring the sharing of Local Network Support Services as the avenue for this information to be exchanged. This use case will be explored further in detailed design in 2025.

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Impacts to market and industry stakeholders are to be determined and subject to final policy designs. Based on current designs / assumptions AEMO anticipate these impacts to be limited to distribution network service providers, distribution system operators, retailers, aggregators and VPPs.

### AEMO Teams

Impacts to AEMO teams are to be determined and subject to final policy designs.

## Next steps

- Subject to the workings of the National CER Roadmap and Taskforce – Consultation paper focused on roles and responsibilities for power system and market operations released in July 2025.<sup>11</sup>
- Subject to further detailed design of CER Data Exchange.

### Where can I find more information?

DCCEEW National CER Roadmap: <https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/consumer-energy-resources-working-group/national-cer-roadmap>

AEMO, Mondo, AusNet Services. Project EDGE Final Report October 2023, Chapter 7: <https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en>

AEMO CER Data Exchange Industry Co-design: <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/markets-and-framework/cer-data-exchange-industry-codesign>

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<sup>11</sup> National CER Roadmap Redefine roles for market and power system operations – M3/P5. Available here: <https://consult.dcceew.gov.au/national-cer-roadmap-redefine-roles-m3-p5>

# CER Data Exchange

*Establishing a digital foundation for data exchange of CER related information between multiple industry actors and AEMO.*

## Problem to be solved

DER coordination at scale requires high volumes of data to be exchanged between many industry actors. The CER Data Exchange initiative (formerly known as DER Data Hub and Registry Services) will be moving into detailed design and implementation to deliver a data exchange function between multiple organisations. CER Data Exchange Use Cases include: DNSPs sending DOEs to customer agents and retailers, enable secure and standardised data exchange between industry and flexibility providers and providing expanded access to CER related information for participants who need it to make informed decisions.

Exchanging data relating to significant volumes of DER without consistent data models, and commands would add unnecessary and material costs to consumers, whilst restricting innovation and raising barriers to entry as seen in the UK.<sup>12</sup> Efficient and scalable DER coordination requires systems planning and consistent approaches across industry.

## Solution

Establishment of a CER Data Exchange to provide secure, efficient and scalable data exchange for CER related information between industry actors (Customer Agents, DNSPs, Retailers, AEMO and OEMs). The CER Data Exchange will leverage the Industry Data Exchange (IDX) and the Identity and Access Management (IDAM) protocols to enable more efficient and permission-based sharing and access to information between organisations.

On 19 July 2024 the CER Roadmap was published by the interjurisdictional CER Working Group established under the National Energy Transformation Partnership. The CER Data Exchange aligns with National Reform Priority *M.2 – Data sharing arrangements to inform planning and enable future markets* of the CER Roadmap. Future consideration of CER Data Exchange will be subject to outcomes of this work and industry initiatives.

## Key benefits

Potential benefits of establishing a CER Data Exchange include more efficient and scalable exchange of data between CER-related actors through standardised exchange and communication standards; the priority use cases explored through Detailed Design will allow for broader access to CER Standing data for authorised stakeholders, ability for Customer Agents,


**Integrating DER and Flexible Demand**

**CER Roadmap: M.2. Data sharing arrangements to inform planning and enable future markets**

## Key Dates

- CER Data Exchange High-Level Design and Implementation Roadmap – 2 MAY 2025
- Publication of National CER Roadmap - 19 JUL 2024
- National CER Roadmap Update/Implementation Plan – 15 AUG 2025

<sup>12</sup> AEMO, Mondo, AusNet Services. Project Edge – Final Report, UK Energy Digitalisation: digital spine, page 267. Available here: [project-edge-final-report.pdf](#)



Aggregators and Retailers to receive DOEs from all DNSPs or export limits from Retailers through one central point, allowing for consistent signals to be sent from DNSPs to customer agents for triggering the delivery of local network services.

## Changes proposed

The CER Data Exchange would be the central digital foundation that supports multiple organisations to share CER-related information through a secure exchange. The scope of the project has been determined through the CER Data Exchange Industry Co-Design initiative. The CER Data Exchange Industry Co-Design (a collaboration between AEMO, AusNet Services and ARENA) conducted intensive workshops over a 9-month period in collaboration with industry and consumer groups to develop a high-level design for a national CER Data Exchange and Implementation Roadmap.

Through the Co-Design project, stakeholders have expressed a clear preference to progress four key elements of the CER Data Exchange in Detailed Design:

- AEMO to continue leading the Co-Design process
- Progress three Priority Use Cases: Broader Access to CER Standing Data, Efficient Sharing Network Limits & Network Support and Flexibility Capability Discovery
- Focus on Developing a Minimum Viable Product for the Priority Use Cases
- Leverage existing capability through the Market Interface Technology Enhancement Program (MITE)
- Targeting the delivery of at least two priority use cases by May 2027.

Detailed design and implementation will focus on building out these elements with industry, starting in Q4 2025. The final co-design reports detailing the High-Level Design were completed in May 2025.<sup>13</sup>

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Impacts to market and industry stakeholders are to be determined and subject to final policy designs. Based on current designs / assumptions AEMO anticipate these impacts to be limited to distribution network service providers, distribution system operators, retailers, aggregators and VPPS.

### AEMO Teams

Impacts to AEMO teams are to be determined and subject to final policy designs.

## Next steps

- AEMO to progress to detailed design for the CER Data Exchange priority use cases in Q4 2025
- The detailed design stage for priority use cases under the CER Data Exchange is in progress with industry, with implementation timing subject to financial approvals.
- In accordance with the high-level design report, the CER Data Exchange is expected to go-live in June 2027.

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<sup>13</sup> CER Data Exchange Industry Co-Design Final Report. May 2025. Available here: [cer-data-exchange-industry-co-design-co-design-summary.pdf](#)



## Where can I find more information?

DCCEEW National CER Roadmap: <https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/consumer-energy-resources-working-group/national-cer-roadmap>

AEMO CER Data Exchange Industry Co-design: <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/markets-and-framework/cer-data-exchange-industry-codesign>

AEMO, Mondo, AusNet Services. Project EDGE Final Report October 2023: <https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en>

AEMO, Mondo, AusNet Services. Project Edge – DER Data Hub Lessons Learnt. <https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-der-data-hub-lessons-learnt-final-june-2023.pdf?la=en>

# DER Operational Tools

*New DER operational tools to support interactions between AEMO and DNSPs.*

## Problem to be solved

New operational tools relating to DER, and interactions between AEMO and DNSPs, will be required to maintain power system security at times when the entire NEM demand could be met with distribution connected resources. AEMO, transmission network operators and DSOs will need to collaborate and communicate in a greater capacity to ensure the system services required to maintain security will be provided in the most cost-effective manner.<sup>14</sup>

## Solution

To identify and develop, in collaboration with DNSPs, new DER operational tools that may be required by each party, which can work together to maintain efficient and secure power system operations at times when up to 100% of system load can be met with DER. For AEMO, this project builds on the work of the Operations Technology Roadmap and consideration of the operational tools that control room staff will need in future.

On 19 July 2024 the CER Roadmap was published by the interjurisdictional CER Working Group established under the National Energy Transformation Partnership. The progression of the DER Operational Tools initiative will be subject to the scope and outcomes of this work.

## Key benefits

The key benefits from this initiative will be the continued power system security when operating at very high penetrations of DER potentially lowering overall costs for all consumers. As well as the enablement of more dynamic operations of the distribution network by DNSPs (with visibility shared with AEMO) allowing for continued local network security and the hosting capacity of the distribution network maximised.

## Changes proposed

The project scope remains subject to future engagement between AEMO and DNSPs to understand what DER operational tools/capabilities they will each need to fulfil their respective roles in future, and how those tools/capabilities will need to interact to maintain local and overall power system security.

**Integrating DER and Flexible Demand**

### Key Dates

- Subject to future collaboration between AEMO & DNSPs and progression of AEMO's Operations Technology Roadmap and CER Roadmap priorities

<sup>14</sup> AEMO submission to parliamentary inquiry on Modernising Australia's Electricity Grid. Available: [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Environment\\_and\\_Energy/modernelectricitygrid/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Environment_and_Energy/modernelectricitygrid/Submissions)



## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Impacts to market and industry stakeholders are to be determined and subject to final policy designs. Based on current assumptions AEMO anticipates distribution network service providers only would be impacted.

### AEMO Teams

Impacts to AEMO teams are to be determined and subject to final policy designs.

## Next steps

Subject to progression of AEMO's Operations Technology Roadmap and the workings and outputs of the National CER Roadmap and Taskforce, in particular the M3/P5 and M2 workstreams.

### Where can I find more information?

DCCEE National CER Roadmap: <https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/consumer-energy-resources-working-group/national-cer-roadmap>

AEMO Operations Technology Roadmap: <https://aemo.com.au/en/initiatives/major-programs/operations-technology-program/operations-technology-roadmap>

# Data Strategy

Electric Vehicle Data  
Bill Transparency



# Electric Vehicle Data

*Improving visibility of electric vehicles as it relates to the electricity industry, to governments and to industry participants (formerly Electric Vehicles Supply Equipment Standing Data Register).*

## Problem to be solved

Electric vehicle (EV) charging is set to transform our electricity systems. While there is some uncertainty regarding the exact pace of adoption of EVs and the technology and charging choices of EV owners (including the use of public charging infrastructure), there is broad consensus that EV integration presents both major opportunities and challenges for the electricity grid.<sup>15</sup>

Currently, networks and AEMO do not have access to reliable data on the size, location, and characteristics of electric vehicle supply equipment (EVSE) to enable them to determine and manage these opportunities and challenges effectively.<sup>16</sup> The opportunity is to provide a solution for improving visibility of electric vehicle information through collecting and sharing data related to the location and characteristics of EV and EVSE.

## Solution

In December 2023, AEMO submitted a rule change request for the AEMC's consideration providing for extension of the DER Register to include EVSE data.<sup>17</sup> At the time of the Rule change request, AEMO had identified challenges in relation to existing limitations in the compliance and enforcement framework for Consumer Energy Resources (CER), which would have a direct effect on the quality and completeness of data collected. After the Rule change proposal submission, AEMO identified additional challenges related to the reporting trigger necessary to ensure distribution network service providers (DNSPs) can be made aware of EVSE installations across their network. These challenges could not be rectified in the National Electricity Rules (NER).

On 19 July 2024 Energy Ministers agreed to publish the National CER Roadmap produced by the interjurisdictional CER Working Group established under the National Energy Transformation Partnership. The roadmap commits to an operational national regulatory framework for CER in 2026, which has been endorsed as a suitable solution to support the effective collection of standing data for EVSE from 2027. To align with these changes and positions, AEMO has retracted the EVSE standing data Rule change request and committed to pursue a non-regulatory work program in the short-term to capture other data relevant to EV charging, while working with the interjurisdictional CER Working Group on the design of a future regulatory framework for improving EV and EVSE visibility. AEMO have therefore rebranded the EVSE initiative as “Electric

### Data Strategy

**CER Roadmap: M.2. Data sharing arrangements to inform planning and enable future markets**

### Key Dates

- Publication of National CER Roadmap - 19 JUL 2024
- AEMO retraction of EVSE rule change - 8 OCT 2024
- AEMO recommendations paper – 23 APR 2025

<sup>15</sup> ESB. Electric Vehicle Supply Equipment Standing Data. Consultation Paper. December 2022. Available here: <https://www.datocms-assets.com/32572/1670367035-esb-electric-vehicle-supply-equipment-standing-data-consultation-paper-december-2022.pdf>

<sup>16</sup> Ibid.

<sup>17</sup> AEMC Rule Change Pending. Electric vehicle charger data in DER register. Available here: <https://www.aemc.gov.au/rule-changes/electric-vehicle-charger-data-der-register>



Vehicle Data” (EVD) as it encompasses data beyond just supply equipment data. AEMO commenced its non-regulatory work program in September 2024.

Stakeholder consultation was completed over November and December 2024 for AEMO’s non-regulatory EV data work program. In April 2025, AEMO published an EV Data recommendations paper to establish and consult with industry and stakeholders on an efficient and effective non-regulatory framework for collecting, managing, and utilising EV-related data across the industry to enhance grid stability, operational planning, and forecasting accuracy at the distribution and market level.

AEMO received ten submissions to its recommendations paper from a broad range of stakeholders (retailers, DNSPs, Metering Providers, electric vehicle groups). Overall, stakeholders were broadly supportive of AEMO's proposed approach and initiatives. Some stakeholders were either supportive or neutral on specific recommendations. Submissions provided additional insight or recommendations on assistance that industry and electric vehicle groups could provide, or how this data could be made more widely accessible.

### Key benefits

Electric vehicle information and visibility can support the energy transition by supporting network and system planning and forecasting, managing the risks associated with different types of charging devices, and providing a better understanding of EV uptake and charging to help unlock their inherent flexibility.

### Changes proposed

The EV Data recommendations paper included four key recommendations, three proposed to be progressed by AEMO and one through industry collaboration. The three AEMO-led recommendations proposed include:

1. Vehicle telematics data: acquire a nationally representative sample of vehicle charging load profiles.
2. EV uptake data: share more frequent EV uptake insights under a potential future data sharing arrangement with National Exchange of Vehicle and Driver Information System (NEVDIS), including where attainable postcode and suburb level granularity
3. Non-intrusive load monitoring (NILM) for smart meter load disaggregation: for the detection of EVs and to support AEMO’s new obligation under the IPRR final rule change monitoring and reporting framework.

The fourth recommendation proposed an EV data industry collaboration framework, to gain greater visibility of assumptions and methods going into EV load detection and forecasting and to learn from leading approaches.

### Market, Industry and AEMO impacts

#### Market & Industry Stakeholders


Impacts to market and industry stakeholders are to be determined and subject to final design.

#### AEMO Teams

Impacts to AEMO teams are to be determined and subject to final design.

### Next steps

The implementation and associated timing of the initiatives proposed recommendations remains subject to future engagement between AEMO and stakeholders:

- 
- Vehicle telematics data: AEMO expects to progress this recommendation in FY27 .
  - EV uptake data: AEMO expects to begin receiving this data in the second half of 2025.
  - NILM for smart meter load disaggregation: Proposed delivery of this subject to further assessment.
  - EV Data National Collaboration Framework: AEMO is continuing to work with potential identified organisations to identify and establish the best pathway for delivering this work, and how it can best support industry’s needs.

### **Where can I find more information?**

DCCEE National CER Roadmap: <https://www.energy.gov.au/energy-and-climate-change-ministerial-council/working-groups/consumer-energy-resources-working-group/national-cer-roadmap>

AEMO Recommendations Paper April 2025: <https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/electric-vehicle-data>

AEMO Electric Vehicle Supply Equipment – Rule change retraction:  
<https://www.aemc.gov.au/sites/default/files/2024-10/AEMO%20-%20Retraction%20EVSE%20Standing%20Data%20Rule%20Change%20Request.pdf>

# Bill Transparency

*Addressing priority gaps in energy information required for government policy makers, regulators and market bodies, to inform decision making to support better consumer outcomes.*

## Problem to be solved

Electricity is an essential service – it is a core input into economic production and impacts living standards. This means that electricity costs and affordability will always be of central concern to governments. Rising electricity bills contribute to cost-of-living pressures on consumers and inflation, government and regulatory decision makers need to better understand financial billing outcomes, whether markets are driving efficient outcomes and how vulnerable groups are being impacted.

In June 2023 the ESB published its Consultation Paper which emphasises the increasing importance of understanding, what drives consumer behaviour, what consumers pay for electricity, and how different services impact bills and choices.<sup>18</sup> This is a high priority gap in energy information required for government policy makers, regulators and market bodies, to inform decision making to support better consumer outcomes.

## Solution

The ESB had considered and consulted on the current approach to collection and use of billing data, as well as potential alternative approaches that could improve transparency of electricity billing data. This work will now be taken forward by the AEMC with a final solution to be determined as part of its market review into Billing Data Transparency.<sup>19</sup>

AEMO notes one of the four options considered by the ESB was to empower a single body (possibly AER or AEMO) to gather retailer-held billing data in a cost-efficient and timely way and share it safely with approved trusted data users, including jurisdictional and market bodies.

## Key benefit

Increasing bill transparency data for government policy makers, regulators and market bodies can:

- support retail energy market policy development and associated outcomes, including reducing costs and affordability through more transparency in competition and reforms.
- provide for more effective and less costly consumer protections, particularly associated with new technologies and services, such as flexible trading arrangements.
- streamline price reporting, reducing duplication.

### Data Strategy

**CER Roadmap: M.2. Data sharing arrangements to inform planning and enable future markets**

### Key Dates

- ESB Consultation Paper - JUL 2023
- Publication of National CER Roadmap - 19 JUL 2024

<sup>18</sup> Energy Security Board. Bill Transparency Consultation Paper. July 2023. Available here: <https://www.aemc.gov.au/sites/default/files/2023-08/esb-billing-transparency-consultation-paper-final-july-2023.pdf>

<sup>19</sup> AEMC Market Review – Billing Data Transparency. Last Accessed 08 April 2025. Available here <https://www.aemc.gov.au/market-reviews-advice/billing-data-transparency>

- support more accurate forecasting through greater awareness of how consumers respond to price signals.

## Changes proposed

The project scope remains subject to the outcomes of the AEMC's market review into billing data transparency.

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Impacts to market and industry stakeholders are to be determined and subject to final policy designs. Based on current assumptions AEMO anticipate these impacts to be limited to Retailers only.

### AEMO Teams

Impacts to AEMO teams are to be determined and subject to final policy designs.

## Next steps

Subject to AEMC market review process.

### Where can I find more information?

AEMC Market Review – Billing Data Transparency: <https://www.aemc.gov.au/market-reviews-advice/billing-data-transparency>

ESB Bill Transparency Consultation Paper (July 2023): <https://www.datocms-assets.com/32572/1688619055-esb-billing-transparency-consultation-paper-final-july-2023.pdf>

# Foundational and Strategic Initiatives

Identity and Access Management

Industry Data Exchange

Portal Consolidation

FRC Target State

Dispatch, Bids/Offers, and  
Constraints Target State



# Identity and Access Management

*Uplifting AEMO's foundational capabilities by providing a unified mechanism to authenticate and authorise external identity of participants accessing AEMO services – part of the Market Interface Technology Enhancements (MITE) work program.*

## Problem to be solved

AEMO's Identity and Access Management (IDAM) services are disparate, requiring users to retain multiple sets of credentials to access AEMO business services. The legacy IDAM services do not implement best practices in cyber security controls (e.g., multifactor authentication) and are insufficient to meet new industry obligations introduced under the Security of Critical Infrastructure (SOCi) Act.<sup>20</sup>

## Solution

To address these shortcomings, a unified mechanism to authenticate and authorise external identity when accessing AEMO services, consolidate and improve overall cyber security controls has been designed. A key feature of these upgrades is the ability for authorised participant representatives to access confidential information directly within AEMO systems using their own verified credentials. AEMO submitted an electricity and gas rule change request to facilitate this key feature.<sup>21</sup>

## Key benefits

The IDAM initiative seeks to achieve a number of objectives including providing unified identification and authorisation for participants, greater scalability and adaptability in light of future reforms, improved user experience, enhanced security and compliance, enhanced self-service auditing and reporting and improved resilience and speed overall.

## Changes proposed

AEMO has completed its consultation with stakeholders on the Final Business Case Package for its IDAM, Industry Data Exchange (IDX) and Portal Consolidation (PC) initiatives.<sup>22</sup> Industry support for the Business Case and its recommendations was sought and received at the Executive Forum 28th March 2024.

The scope for the IDAM initiative would include<sup>23</sup>:

### Foundational and Strategic Initiatives

#### Key Dates

- AEMO Final Business Case Package - JUL 2024
- AEMO rule change requests – 15 MAY 2025
- Completion of initial consultation through MITEWG – 2025
- Foundational Phase – Target Completion Q1 2027

<sup>20</sup> AEMO. Final Business Case Package (IDAM, IDX and PC). July 2024. Available here: [https://aemo.com.au/-/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/fs-final-business-case.pdf?la=en&hash=C1E5245CD162A5E4705C71DF3B36690F](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/fs-final-business-case.pdf?la=en&hash=C1E5245CD162A5E4705C71DF3B36690F)

<sup>21</sup> [Enhancing access for registered participant representatives \(Electricity\) | AEMC](#) and [Enhancing access for registered participant representatives \(Gas\) | AEMC](#)

<sup>22</sup> Ibid.

<sup>23</sup> AEMO. Business Case Discussion – Session 6A. 22 January 2024. Available here: [https://aemo.com.au/-/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/session-6a--draft-business-case-discussion-idx-idam-pc-for-combined-business-and-technical-focus-gro.pdf?la=en](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/session-6a--draft-business-case-discussion-idx-idam-pc-for-combined-business-and-technical-focus-gro.pdf?la=en)

- Define & implement target state identity and access management solution.
- Implement mandatory cybersecurity uplifts (such as SOCI) and advanced security capabilities such as identity federation, context-based authentication.
- Unify the identity and entitlement management stores within the NEM and lay the foundation to extend this capability to other markets such as Gas and WEM through other market initiatives (while uplifting the Authentication capability for the other markets).
- De-duplicate / consolidate the user accounts, providing the capability to use a single account to access business functions across multiple markets.
- Build organisation hierarchy.
- Enhance data-sharing capabilities to provide advanced data-sharing permissions.
- Enhance Participant Admin experience e.g., Assign multiple Participant IDs (PIDs) to a role minimising creating duplicate roles at an organisation level when an organisation has multiple PIDs.
- Basic and advanced Identity & Entitlement Management Governance & Assurance.

In August 2024, AEMO established the Market Interface Technology Enhancements Working Group (MITEWG). The objective of the MITEWG is to enable collaboration with industry to progress the planning and implementation of key deliverables which relate to market interface technology, such as IDAM, IDX and PC. This work is underway and focus groups have been established to collaborate with industry on the details of the preferred solution for IDAM and IDX initially.

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Minor impacts on most participants, however some participants (FRMPs) may see moderate impacts if they are leveraging many of AEMO's web services or using local identity.

### AEMO Teams

The IDAM initiative will have high impacts on AEMO's Digital teams (including Enterprise Application Services, Cyber Security, and Cloud Platform Infrastructure & Networks).

## Next steps

Target completion of the foundational phase in Q1 2027. Project is now finalising its architecture following confirmation of solution & software selections. IDAM, the IDX Foundation Release (IDX initial release is supporting BPQD, see below) & Portal Consolidation will be delivered through a combined implementation plan. IDAM delivery on track to commence in October 2025, followed by E2E testing through 2H 2026 and Go-live in 1Q 2027.

### Where can I find more information?

AEMO Market Interface Technology Enhancements Working Group:

<https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/market-interface-technology-enhancements>

AEMO Final Business Case Package (IDAM, IDX and PC) July 2024: [https://aemo.com.au/-/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-)

[/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-)

# Industry Data Exchange

*Uplifting AEMO's foundational capabilities by providing a unified data exchange mechanism to support the secure and efficient exchange of data between energy stakeholders for new services – part of the Market Interface Technology Enhancements (MITE) work program.*

## Problem to be solved

AEMO's existing data exchange systems have been variously acquired over the last 10-15 years, and use inconsistent standards, protocols and formats. AEMO's markets are also undergoing significant transformation, resulting in new data exchange needs. AEMO introducing new data exchange patterns without a unified target state and roadmap is inhibiting participants from modernising their systems and quantifying the benefits of their investments.

## Solution

The Industry Data Exchange (IDX) initiative seeks to establish a unified data exchange mechanism to support the secure and efficient exchange of data between energy stakeholders for new services required by NEM Reforms, existing legacy services and provide a framework extensible to other energy markets.

## Key Benefits

The IDX initiative will provide industry standardized channels, protocols, and capabilities to provide a seamless integration of data exchange. In doing so, the initiative seeks to:

- efficiently consolidate the development of data exchange protocols for new business services – avoiding protocol 'bloat', minimising siloed development & improving speed to market for new reforms
- align with changing participant systems and cyber security obligations
- improves transaction timeliness and reduce incidences of stop files
- enable the scalable extension of existing business services [IDX Transition], and
- enable compartmentalisation of schema changes, thereby reducing regression testing costs of twice-yearly market changes [IDX Transition].

## Foundational and Strategic Initiatives

### Key Dates

- AEMO Final Business Case Package - JUL 2024
- Completion of initial consultation through MITEWG - Q2 2025
- Initial Production release for Basic Power Quality Data (BPQD) – JUL 2026
- MITE Foundation Release Industry Testing commencing DEC 2026
- Foundational Phase – Target Completion Q1 2027

## Changes proposed

AEMO has completed its consultation with stakeholders on the Final Business Case Package for its Identity and Access Management (IDAM), IDX and Portal Consolidation (PC) initiatives.<sup>24</sup> Industry support for the Business Case and its recommendations was sought and received at the Executive Forum 28th March 2024.

The scope for the IDX initiative would include<sup>25</sup>:

- **DP1: IDX Foundational** – scope is to build capability that efficiently supports upcoming new reforms in a secure and extensible way. As part of this foundational phase the scope would include:
  - Enhance data exchange cyber controls implementing the legislative driven requirements and obligations such as SOCI, Australian Energy Sector Cyber Security Framework (AESCSF).
  - Define and implement target state channels, protocols, patterns and payload standards.
  - Unify the data exchange mechanisms across markets and fuels. Define the unified data exchange mechanisms for future reforms.
  - AEMO data exchange software is enhanced to provide data exchange mechanisms that are defined in the target state architecture; minimising the gateway development costs for the industry covering all the channels that are defined in the target state architecture.
- **DP2: IDX Transitional**<sup>26</sup> – assess options to address legacy IDX services taking into account learnings and exit criteria from delivery of the foundation and experience in the delivery of new business services. As part of this transitional phase the scope would include assessing options to transition existing NEM Retail, Wholesale and Transmission business services to the new foundational IDX patterns, protocols and payload formats.

In August 2024, AEMO established the Market Interface Technology Enhancements Working Group (MITEWG). The objective of the MITEWG is to enable collaboration with industry to progress the planning and implementation of key deliverables which relate to market interface technology, such as IDAM, IDX (Foundation) and PC. This work is underway and focus groups have been established to collaborate with industry on the details of the preferred solution for IDAM and IDX.

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Moderate to high impacts on all market and industry stakeholders who access AEMO's services.

### AEMO Teams

High impacts on AEMO's Digital (e.g., Enterprise Application Services, Cyber Security, and Cloud Platform Infrastructure & Networks) and Operations teams (e.g., Metering).

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<sup>24</sup> Ibid.

<sup>25</sup> AEMO. Business Case Discussion – Session 6A. 22 January 2024. Available here: [https://aemo.com.au/-/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/session-6a--draft-business-case-discussion-idx-idam-pc-for-combined-business-and-technical-focus-gro.pdf?la=en](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/session-6a--draft-business-case-discussion-idx-idam-pc-for-combined-business-and-technical-focus-gro.pdf?la=en)

<sup>26</sup> This second phase has not yet been endorsed by industry or approved by AEMO. An updated business case for IDX Transition is to be developed.



## Next steps

Potential completion of the foundational phase in Q1 2027. IDX Components and approach to support PQD (release 1 July 2026) have been confirmed. Detailed design and delivery are progressing, and will continue throughout the remainder of 2025 and into 2026.

### Where can I find more information?

AEMO Market Interface Technology Enhancements Working Group:

<https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/market-interface-technology-enhancements>

AEMO Final Business Case Package (IDAM, IDX and PC) July 2024: [https://aemo.com.au/-](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/fs-final-business-case.pdf?la=en&hash=C1E5245CD162A5E4705C71DF3B36690F)

[/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/fs-final-business-case.pdf?la=en&hash=C1E5245CD162A5E4705C71DF3B36690F](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/fs-final-business-case.pdf?la=en&hash=C1E5245CD162A5E4705C71DF3B36690F)

# Portal Consolidation

*Establishing a new web and mobile user portal to provide a unified stakeholder experience – part of the Market Interface Technology Enhancements (MITE) work program.*

## Problem to be solved

AEMO browser services are exposed over a disparate range of end points and require multiple sets of credentials to consume these services. This results in a suboptimal user experience for energy stakeholders. The requirement to access browser services via private networks creates technical barriers to consuming these services.

## Solution

The Portal Consolidation (PC) initiative seeks to establish a new web and mobile user portal to provide a unified stakeholder experience. The portals framework is an enabling platform that supports energy market participants and other partners to consume AEMO browser services in a secure manner.

## Key benefits

The Portal Consolidation solution will provide a consistent and unified user experience allowing for a standardised experience to consume AEMO browser services, enhanced self-service capabilities for market participants, integration with the enterprise identity management and user authentication solutions and overall improved user experience by establishing standards for navigation, look and feel and help menus.

## Changes proposed

AEMO has completed its consultation with stakeholders on the Final Business Case Package for its Identity and Access Management (IDAM), Industry Data Exchange (IDX) and PC initiatives.<sup>27</sup> Industry support for the Business Case and its recommendations was sought and received at the Executive Forum 28 March 2024.

The scope for the PC initiative would include<sup>28</sup>:

- Technical Uplift – upgrade the Portal technical stack
- Portal Frameworks – creation of the new Portal instances.
- IDX Release 1 Screens (BPQD) – implement 17 Low Volume Interface (LVI) screens for the IDX project to meet the Basic Power Quality Data (BPQD) release of 1st July 2026.
- IDX Foundation Release – build remaining LVI screens for the IDX project to meet the Foundation release of Q1 2027.

<sup>27</sup> Ibid.

<sup>28</sup> AEMO. Business Case Discussion – Session 6A. 22 January 2024. Available here: [https://aemo.com.au/-/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/session-6a--draft-business-case-discussion-idx-idam-pc-for-combined-business-and-technical-focus-gro.pdf?la=en](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/session-6a--draft-business-case-discussion-idx-idam-pc-for-combined-business-and-technical-focus-gro.pdf?la=en)

### Foundational and Strategic Initiatives

#### Key Dates

- AEMO Final Business Case Package - JUL 2024
- Commence collaboration through MITEWG - Q2 2025

- IDAM Foundation Release – build screens for the IDAM project to meet the Foundation release of Q1 2027 aligned with the IDX Foundation release.
- Portal Enhancements – build a series of improvements to enhance the existing Portals in Q2 FY27 such as Notifications, (two-way communications), Explore & Search, Help, Theming & Personalisation.
- Portal Consolidation – migrate six web applications as confirmed by the Industry Participants to the Applications Portal so they can be accessed over the internet (internet enablement).

In August 2024, AEMO established the Market Interface Technology Enhancements Working Group (MITEWG). The objective of the MITEWG is to enable collaboration with industry to progress the planning and implementation of key deliverables which relate to market interface technology, such as IDAM, IDX and PC. This work is underway and focus groups have been established to collaborate with industry on the details of the preferred solution for IDAM and IDX, with similar collaboration to commence in Q2 2025 for PC.

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Moderate impacts on all market and industry stakeholders who access AEMO's services.

### AEMO Teams

Moderate impacts on AEMO's Operations (e.g., Energy Market Monitoring, Systems Capability) and Digital (e.g., Enterprise Application Services) teams.

## Next steps

Aligning with delivery timelines of IDX and IDAM (bundled releases) with foundational phase completed in 1Q 2027. Six web apps to port over to new External Portal to be confirmed with MITEWG.

### Where can I find more information?

AEMO Market Interface Technology Enhancements Working Group:

<https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/market-interface-technology-enhancements>

AEMO Final Business Case Package (IDAM, IDX and PC) July 2024: [https://aemo.com.au/-/media/files/stakeholder\\_consultation/working\\_groups/other\\_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/fs-final-business-case.pdf?la=en&hash=C1E5245CD162A5E4705C71DF3B36690F](https://aemo.com.au/-/media/files/stakeholder_consultation/working_groups/other_meetings/nem-reform-foundational-and-strategic-initiatives-focus-group/fs-final-business-case.pdf?la=en&hash=C1E5245CD162A5E4705C71DF3B36690F)

# FRC Target State

**Implement a consolidated Asset and Participant Relationship Management system (APRM) that enables unification of services onto a shared platform.**

*Note the Consolidated Master Data Repository initiative has now merged into this initiative.*

## Problem to be solved

AEMO currently maintains multiple applications to manage assets and participant relationships in the Retail Markets. Standing Data from these systems are copied (duplicated) to other downstream systems causing data latency and quality issues. The majority of these systems are bespoke with point-to-point integration and all of the Full Retail Competition (FRC) platforms are at the end of their technical life and require renewal. These applications also maintain their own and / or leverage multiple Master and Reference data repositories across the organisation. This has potentially adverse business implications for Participant experience and efficiency.

There are significant regulatory changes on the horizon that require material investment to enhance and maintain these systems and new market reforms continue to introduce additional assets and/or additional characteristics of the assets requiring smart investments.

## Solution

- Implement a consolidated Asset and Participant Relationship Management system (APRM) that enables unification of services onto a shared platform and simplification of Participants' and AEMO processes.
- Provide single access to AEMO's Retail systems (network, portal, hub, data access and system architecture) for Participants and potentially to non-Participants such as 3rd parties (e.g., under the Consumer Data Right for Energy reforms).
- Accommodate new market assets such as DER, and EV into AEMO grid and market solutions.
- Provide the foundation for unifying the procedure definitions, business processes, data exchange patterns and mechanisms, and AEMO systems across jurisdictions, markets and fuels.
- Implement systems changes to improve delivery of consolidated processes at lower cost to both Market Participants and AEMO.
- Simplify and consolidate disparate data through centralisation of Master Data. AEMO to provide Master Data as a service (in batch and real time).

## Key benefits

The initiative seeks to improve operational performance by leveraging unified interface protocols and methodologies removing duplication efforts and costs for AEMO and Participants across the industry. Further, it provides for easier market

**Foundational and Strategic Initiatives**

### Key Dates

- Subject to AEMO's Future State Architecture assessment



changes through reduced dependency on code changes allowing for more efficient and reduced costs of implementation of procedure changes, enabling third parties to provide system solutions at lower prices.

Finally, the initiative will align to AEMO's cyber security standards and minimised data movement across the organisation, improving data security, quality, latency, and accuracy.

From a Master Data perspective, this will further:

- Provide Participants the ability to access a single source of truth for all of their data allowing Participants to be able to provide one update that will map across various AEMO applications and remove the need for Participants to engage with multiple AEMO business units.
- Provide data as a service and simplify access for Participants to consistent quality data and simplified, unified information improving service and time efficiencies.

## Changes proposed

The platform needs to enable consolidated procedures, interfaces, security standards, protocols, and support processes across all Retail Markets (the integration for non-NEM retail markets is outside the NEM Reform Program scope). The platform will extend to new assets such as DER, EVs and integrating it with the grid and other market systems. Following an assessment of initiative synergies, this now includes consideration of Master and reference data previously articulated as a separate initiative (Consolidated Master Data Repository).

Key stepping stones to the target state include Actor-Asset platform: NEM CATS; NEM wholesale registration process; and bringing other processes and applications onto platform (e.g., DER Register).

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

Impacts to market and industry stakeholders are to be determined and subject to AEMO's ongoing Future State Architecture assessment. Based on current assumptions AEMO anticipate impacts on all market and industry stakeholders who wholesale, retail and gas market participants.

### AEMO Teams

Impacts to AEMO teams are to be determined and subject to its Future State Architecture assessment. Based on current assumptions AEMO anticipate impacts to its Operations and Digital teams.

## Next steps

AEMO does not anticipate progressing this initiative in the next two years. When AEMO does, a business case assessment and implementation roadmap would be collaboratively developed with industry similarly to how the MITE business case was developed.

# Dispatch, Bids/Offers, and Constraints

## Target State

*A technology uplift of AEMO backend market platform services to replace legacy technology.*

### Problem to be solved

AEMO's core market dispatch and constraints platform is at the end of its technical life and the technologies which underpin this platform are legacy. There is a rapidly diminishing footprint of resources in the contract market with skills in these technologies available.

### Solution

To modernise the core market dispatch and short-term market systems to align it with modern technologies that are widely supported in AEMO, and for which, external resources with those skill sets readily exist.

### Key benefits

This initiative seeks to ensure the ongoing viability and maintainability of the core market dispatch and constraints platform – which are mission critical to enable secure and optimised participation by actors in various markets in the NEM.

The adoption of modern delivery frameworks will improve the ability of AEMO to deliver changes to these platforms which will be increasingly required as the energy transition continues. This will provide cost efficiency benefits and value to Participants through reduced implementation costs.

### Changes proposed

This initiative will employ a phased approach subject to various Checkpoints. The final scope of each phase will be subject to review.

Tranche 1 – A tactical incremental solution to transition from end-of-life technology to a supported platform in order to eliminate immediate technology risks and provide an opportunity to apply more readily available technology personnel, thereby enhancing scalability and organisational delivery capability. This solution can be implemented without affecting regulatory reform initiatives related to NEM Reform Program.

### Market, Industry and AEMO impacts

#### Market & Industry Stakeholders

Impacts to market and industry stakeholders are subject to future checkpoints. Tranche 1 changes have no market and industry stakeholder impacts.

#### AEMO Teams

Future impacts to AEMO teams are subject to future checkpoints. Tranche 1 changes have low impacts to its Digital teams.

**Foundational and Strategic  
Initiatives**

#### Key Dates

- Subject to ongoing monitoring and assessment of target state requirements



## Next steps

- Dispatch tactical uplift to be completed by November 2025.
- Ongoing monitoring and assessment of target state requirements at various 'Checkpoints' to assess i) any fundamental changes in the reform requirements (e.g., nodal pricing) and ii) performance and scalability requirements that may be impacted by forthcoming DER growth and initiatives. Next checkpoint is November 2025.

### Where can I find more information?

Additional information to be made available subject to AEMO's ongoing Future State Architecture assessment.

# Retail Electricity Market Improvements

Metering Services Review (Accelerating Smart  
Meter Deployment)

Real-time data for consumers



# Metering Services Review (Accelerating Smart Meter Deployment)

*Reform actions and improvements to the current regulatory framework to enable accelerated deployment of smart meters in the NEM.*

## Problem to be solved

Households are becoming smarter and more autonomous over time and will be increasingly interacting with the grid and energy markets. Smart meters are an important tool to facilitate that interaction, and to support the cost-effective decarbonisation of the energy market. The current metering framework provides a pathway for legacy meters to be replaced over time, with smart meters being installed on a new and replacement basis, through customer requests and proactive deployments by retailers. However, this approach will not lead to smart meters being deployed fast enough to support the pace of transition of the future energy system.

## Solution

The Metering Services Review (Accelerating Smart Meter Deployment Rule 2024) implements a series of reforms to the current regulatory framework, to enable faster replacement of legacy meters. The AEMC's final determination<sup>29</sup> includes the reforms set out below, paving the way for universal uptake of smart meters by 2030.

- Accelerating the deployment of smart meters across the NEM - sets a clear target in the NER for the accelerated deployment of smart meters between 2025-2030. Requires DNSPs to create a Legacy Meter Replacement Plan (LMRP) to schedule the replacement of their type 5 and 6 (legacy) metering installations. DNSPs must prepare a schedule for each 12-month period. Introduces new obligations on retailers to meet the target and a compliance monitoring role for the AER.
- Enabling better access to power quality data (PQD) - defines 'basic' PQD and allows DNSPs to access or receive 'basic' PQD. Imposes responsibilities and requirements on metering coordinators (MC) to enable better access for DNSPs.
- Providing customer safeguards - protect customers from potential upfront charges and exit fees for new meters, and bill shock from unwanted retail tariff structure changes.
- Improving the customer experience in metering upgrades - expand the smart meter information retailers must provide to customers prior to any upgrades, enable customers to request a smart meter from their retailer for any reason, and require retailers to install a smart meter on receipt of such a request. Improve the meter malfunctions replacement framework.

## Retail Electricity Market Improvements

### Key Dates

- AEMC Final Determination - 28 NOV 2024
- AEMO Final High Level Implementation Assessment – 17 DEC 2024
- Effective date 1 DEC 2025 for acceleration and 1 JUL 2026 for Power Quality Data
- AEMO consultations completed

<sup>29</sup> The AEMC's final determination is shaped by the findings of the AEMC's Review of the regulatory framework for metering services, 30 August 2023. Available here: [https://www.aemc.gov.au/sites/default/files/2023-08/emo0040 - metering\\_review - final\\_report.pdf](https://www.aemc.gov.au/sites/default/files/2023-08/emo0040 - metering_review - final_report.pdf)

- Reducing barriers to installing smart meters and improving industry coordination - remove the option for customers to opt-out of a new meter deployment. Reduce the number of notices that retailers send to customers before a new meter deployment from two to one. Establish a process for DNSPs, retailers and metering parties to install meters in shared fusing scenarios, such as multi-occupancy sites. Enable a process for retailers to encourage customers to remediate, as well as to track site defects.
- Creating a fit-for-purpose testing and inspection regime - exempts MCs from testing and inspecting legacy meters during the LMRP period. Clarifies the testing and inspection requirements for meters by refining how the testing requirements apply, requiring MCs to inspect smart meters in line with an asset management strategy (AMS) approved by AEMO and requiring AEMO to develop, maintain, and publish guidelines on the AMS submission and approval process within six months of the final rule being made.

## Key benefits

The reform changes benefit consumers by increasing the amount of information available about their energy use, allow consumers to better understand and manage their bills, and open up access to new and better retail service options. More broadly it benefits all energy stakeholders by enabling a more efficient, lower-cost, and lower-emissions energy system.

## Changes to be delivered

AEMO has finalised its consultations deliverables of MSR, which were separated into three packages to meet effective dates of the Rule.

- Package 1 - LMRP, Defects, one-in-all-in processes (Final Report published 2 April 2025).
- Package 2 - Testing and inspection guidelines, Metering installation malfunctions (Final Report published 1 July 2025).
- Package 3 - Access to Power Quality Data (Final Report published 1 October 2025).

The table below summarises the changes for MSR.

Procedures & Guidelines	Market Applications	Market Interfaces
<p>Procedures and documents impacted:</p> <ul style="list-style-type: none"> <li>• B2B Procedures – Service Order Process, One Way Notification Process, Customer and Site Details Notification Process</li> <li>• MSATS – MSATS Procedures and Principles, Standing Data for MSATS</li> <li>• Metering procedures, guidelines and processes – Service Level Procedure MDP Services, Service Level Procedure MP Services Metering Installation Malfunction Exemption, Basic Power Quality Data Procedure,</li> <li>• Metrology Procedures and unmetered loads – Part A, Part B and new Metrology Procedure Part C which details the Asset Management strategy guideline</li> <li>• Accreditation and Registration - Accreditation Checklists (Metering Providers, Metering Data Providers &amp; Embedded Network Mangers), Guide to the Role of the Metering Coordinator</li> </ul>	<ul style="list-style-type: none"> <li>• Several updates to MSATS CATS to support Package 1. The design leverages the established MSATS CATS standing data, change request processing, data access, and data update frameworks.</li> <li>• Changes to existing B2B Transactions to support Package 1.</li> <li>• SMP eHub - While there are no functional changes to SMP eHub's data exchange mechanisms to support Packages 1 or 2, changes to the B2B and B2M schema versions required under Package 1 have an indirect impact.</li> <li>• MSATS Browser - Updates are needed throughout the MSATS Browser UI to reflect the additional fields added to CATS for Package 1 and changes to introduce new CR codes. Additionally, the B2B Browser LVI requires new values to be added to existing dropdown lists in the</li> </ul>	<ul style="list-style-type: none"> <li>• B2B Validation Module shall be updated for Package 1, to account for the inclusion of additional enumerated values.</li> <li>• Participant Batchter shall be updated For Package 1, to account for B2M and B2B schema changes.</li> <li>• As part of the procedure development and consultation for Package 3, AEMO has specified the requirements on the payload format, protocols, and channels by which Power Quality Data shall be exchanged in the market. Delivery of the data is via IDX .</li> <li>• MSATS Data Model Impacts - B2M CATS_NMI_DATA support for the following new attributes (LMRP, Defect Flag, Site Remediation Status, Site Remediation Date)</li> </ul>



<ul style="list-style-type: none"> <li>• Basic Power Quality Data Procedure</li> </ul>	<p>'Create New Transaction' screens to support Package 1</p> <ul style="list-style-type: none"> <li>• Impacted Reports - MSATS Snapshot, CATS &amp; RM</li> <li>• APIs - There are no additional API endpoints, API resources or protocol changes identified under Package 1 or 2. For Package 1 and 2, B2B Payload schema changes are required to include the necessary attributes for LMRP, Site Defects and One-In-All-In.</li> <li>• System impacts for Package 3 relate to the introduction of a new exchange architecture, IDX, to provide the platform for basic power quality data to be provided from the MC to the DNSP.</li> </ul>	
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## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

- DNSPs
- Market Customers / FRMPs (retailers or aggregators)
- Metering Providers
- Metering Data Providers and Metering Coordinators

### AEMO Teams

- Operations (Metering)
- Digital (Retail Solutions)

## Next steps

- Packages 1 and 2 are to be implemented by 1 December 2025 and Package 3, PQD by 1 July 2026.
- Package 1 and 2 system changes to be in production by 26 October 2025. The release includes changes to support: LMRPs, Metering Installation Defects, ICFs, RoLR reporting and Metering installation malfunctions. Industry Test preparation has commenced and engagement for LMRP loading is ongoing.
- Industry testing for Package 1 and Package 2 formally commenced 8 September 2025 and ends 27 November 2025.
- Package 3 - PQD will be the initial implementation on the Industry Data Exchange (IDX) platform with an effective date of 1 July 2026.

## Where can I find more information?

AEMC Rule Change Accelerating smart meter deployment: <https://www.aemc.gov.au/rule-changes/accelerating-smart-meter-deployment>

AEMO NEM Reform Program – Metering Services Review (Accelerating Smart Meter Deployment): <https://aemo.com.au/en/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/metering-services-review---accelerating-smart-meter-deployment>

AEMO Metering Services Review – Consultation Package 1: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2024-metering-services-review-package-1>

AEMO Metering Services Review – Consultation Package 2: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-metering-services-review-package-2>

AEMO Metering Services Review – Consultation Package 3: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-metering-services-review-package-3>

# Real-time data for consumers

*Access to real-time energy data for consumers.*

## Problem to be solved

Consumers lack sufficient information and tools to understand their energy use, modify their behaviour and help lower bills. Consumers and their authorised representatives have limited access to energy data in a real time and a user-friendly format, with consumers having no explicit rights under the current regulatory framework. Local access barriers exist, with only accredited metering service providers permitted to remove seals covering communication ports. Remote access barriers also exist as metering services providers are not obliged to provide access to data on a reasonable and timely basis.

## Solution

To address this issue, the AEMC proposes the introduction of a framework to facilitate consumer access to real-time data from smart meters as part of their electricity services, as well as access by representatives appointed by customers. The key elements include:

- enable all consumers to request access to RTD from smart meters from 1 January 2028
- enable representatives appointed by customers and accredited by the Australian Energy Market Operator (AEMO) to also access the data, subject to the relevant customer's consent
- change the meter minimum service specifications (min specs) so that all new meters installed from 1 January 2028 would be capable of communicating RTD
- introduce an enabling framework to define the service and associated roles and responsibilities including:
  - a definition of RTD in the National Electricity Rules (NER)
  - AEMO-specified Real-Time Data Procedures
  - a requirement on retailers to facilitate access to RTD
  - a requirement on metering coordinators (MCs) to facilitate access to RTD in accordance with a retailer's request and any requirements specified in AEMO's Real-Time Data Procedures.

## Key benefits

The benefits for consumers of having access to real-time data include:

- gain a deeper understanding of their energy use patterns,
- make more informed decisions on their energy use,
- potentially save money on their electricity bills, and

### Retail Electricity Market Improvements

#### Key Dates

- Rule change initiated – 10 OCT 2024
- Draft determination – 11 SEP 2025
- High Level Implementation Assessment – 16 OCT 2025

- take advantage of innovative energy products and services to get more value from the way they use energy, including their consumer energy resources (CER).

## Changes proposed

The solution detailed above will impact AEMO market systems and a range of AEMO and B2B procedures and processes. The draft High Level Implementation Assessment provides a preliminary view of these impacts, which has been summarised in the table below.

Procedures & Guidelines	Market Applications	Market Interfaces
<p>New Procedures</p> <ul style="list-style-type: none"> <li>• Real-Time Data Procedure - AEMO must develop and publish initial “Real-time Data Procedures” in accordance with the Rule consultation procedures, by 1 July 2026. Participants must align systems and processes to specifications.</li> <li>• Real-Time Data Authorised Recipient Accreditation (RTDAR) Guidelines - AEMO must publish accreditation guidelines by 1 November 2026 for RTDARs</li> <li>• Accredited Real Time Data authorised recipients</li> </ul> <p>Amendments to various existing procedures and artefacts e.g. Retail Electricity Market Glossary &amp; Framework , MSATS Procedures and Standing Data for MSATS</p> <p>For the full list of procedure changes refer Draft HLIA.</p>	<p>AEMO system impacts to;</p> <ul style="list-style-type: none"> <li>• MSATS CATS - Introduce new attributes within the CATS_NMI_DATA table, CR process updates</li> <li>• B2B Integrations - Potential changes to B2B Service Orders (SORD) transactions and SORD SubType, Possible changes to B2B One Way Notification (OWN) transactions</li> <li>• AEMO Provided Software - Participant Batchers, B2B Validation Module, B2B Validation Module</li> <li>• Capacity - capacity uplifts may be required to manage additional volumes of data flow</li> </ul> <p>For details of system impacts refer Draft HLIA.</p>	<p>AEMO system impacts to;</p> <ul style="list-style-type: none"> <li>• IDX interface - AEMO assumes RTDAR parties will not require an IDX provisioned data exchange framework to interact with Registered Participants. During the implementation, the MITE Project may deploy new interfaces to facilitate exchange of NEM Retail B2B and B2M business functions through the IDX Platform</li> </ul> <p>Various schema impacts</p> <ul style="list-style-type: none"> <li>• For B2M and B2B – Changes to aseXML and IDX Schema</li> </ul> <p>For details refer Draft HLIA.</p>

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders


- Retailers
- Metering Coordinators
- Metering Providers
- Metering Data Providers

### AEMO Teams

- Operations (Retail Reform Program Delivery & Metering)
- Digital (NEM Industry & Market Solutions)

## Next steps

- The AEMC expects to make a final determination and rule on 4 December 2025.
- AEMO will publish a final High Level Implementation Assessment (including Information Exchange Committee approved B2B Procedure timelines) in early 2026.
- The Draft Rule places new obligations on AEMO, including requirements to:

- 
- Publish Real-Time Data Procedures by 1 July 2026 in accordance with the Rules consultation procedures; and
  - Publish Accreditation Guidelines under new NER clause 7.4.5(b) by 1 November 2026.
- Based on the draft rule, consumers would be able to request access to real-time data from 1 January 2028. However, AEMO have recommended in the Draft HLIA that this date is not practical and that the AEMC consider a phased or staggered commencement to reflect readiness across different framework components and participant response times, aligned with the biannual release cycles (May and November).

### **Where can I find more information?**

AEMC's Real-time data for consumers: <https://www.aemc.gov.au/rule-changes/real-time-data-consumers>

AEMO's Real-Time Data: <https://www.aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/real-time-data>

# Wholesale Electricity Market Reforms

Shortening the settlement cycle

Allowing AEMO to accept cash as credit support

PEC Market Integration (Interregional settlement residue arrangements for transmission loops)



# Shortening the settlement cycle

*Shortening the settlement cycle to reduce working capital needs of retailers when meeting AEMO's prudential collateral requirements to cover accrued liabilities in the NEM.*

## Problem to be solved

The current 20 business day settlement cycle requires prudential collateral (credit support) that covers 35 days of accrued unpaid settlement amounts, plus a 7 day reaction period following any payment default.<sup>30</sup> The credit support requirements can be significant, particularly for smaller retailers that are less likely to have a corporate generation portfolio to offset their prudential position, and may have greater financing costs for (or must cash back) bank guarantees. Bilateral contracts between retailers and (typically) generators are usually only settled on the NEM final settlement date for the contract period, meaning retailers are required to provide credit support for wholesale exposure for which they may be fully hedged outside of the NEM.

During high pricing periods, retailers must respond to an increase in accrued liabilities by providing cash deposits or increased credit support to AEMO. The additional amount of cover required by AEMO is a function of the credit support, number of unpaid days that have accrued and the distribution of high price events during those days.

## Solution

In December 2023 GloBird Energy submitted a rule change request to shorten the settlement cycle to 10 business days following the end of the billing week. This included proposing to bring forward the posting of preliminary statement to 3 business days, and final statement to 8 business days. Following this rule change request and stakeholder consultation, the AEMC have made a Final Determination to amend the NER to shorten the NEM settlement from 20 business days following the end of a billing period, to 9 business days.

## Key benefits

Shortening the settlement cycle (SSC) rule change decreases the time over which participants are required to provide credit support. This would result in a reduction in the quantum of credit support provided by participants and the forward settling of bilateral derivative contracts. Lowering these working capital requirements may support increased investment in service innovation, lower barriers to retail electricity market entry, and reduce the risk of retailer failure. This in turn provides benefits for consumers through access to better service offerings, more choice, and more competitive pressure on retail prices.

## Wholesale Electricity Market Reforms

### Key Dates

- Final Determination - 12 DEC 2024
- AEMO's Final High Level Implementation Assessment - 12 FEB 2025
- Rule Commencement – 9 AUG 2026
- New CLP and MCL methodology take effect 11 DEC 2026

<sup>30</sup> Each market participant's credit support is based on its typical daily accrual adjusted for volatility, established in accordance with the [credit limit procedures \(CLP\)](#).

## Changes proposed

The SSC final rule has three major implementation components:

- Establish metering and settlement processes that support a new, shorter settlement cycle.
- Adapt the credit limit procedures (CLP) and supporting process to reflect the shorter settlement cycle.
- Transition metering, settlement and prudential processes from the current settlement cycle to the shorter settlement cycle.

The table below summarises the changes proposed based on the Final HLIA.

Procedures & Guidelines	Market Applications	Market Interfaces
<p>Current relevant AEMO Wholesale market procedures and other documentation</p> <ul style="list-style-type: none"> <li>• Procedure - Credit Limit Procedures, Reallocations timetable, NEM settlement estimation guide, NEM Settlement Estimates Policy - The CLP and supporting information will be high impact if analysis shows that material changes to the methodology are required to maintain a 2% standard under a shorter settlement cycle. Consultation will be required for these procedure changes</li> <li>• Guides – e.g. Guide to prudential margin offsets, NEM prudential dashboard, Settlement calendars</li> <li>• Contracts - NEMAS contracts</li> </ul> <p>Current relevant AEMO Retail and Metering market procedures and other documentation</p> <ul style="list-style-type: none"> <li>• Metering data delivery calendar</li> <li>• Service level procedure (SLP) MDP services and MSATS procedures</li> <li>• MDM procedures , Metrology procedure Part A &amp; B</li> <li>• B2B procedures</li> <li>• Guide to enterprise metering data management</li> </ul> <p>For a full list of procedure changes and due dates refer Final HLIA.</p>	<p>AEMO system impacts across;</p> <ul style="list-style-type: none"> <li>• Meter Data Management (eMDM)</li> <li>• MSATS</li> <li>• B2B Systems</li> <li>• Settlements</li> <li>• Estimations</li> <li>• Prudentials</li> <li>• Billing</li> <li>• Reports and Invoicing</li> <li>• Payments</li> <li>• Data Model and interchange</li> <li>• Market Portals</li> <li>• AEMO Provided Software</li> </ul> <p>For details of each system change refer Final HLIA.</p>	<ul style="list-style-type: none"> <li>• A new screen in the Markets portal for Security Deposit Management</li> <li>• The Participant Batcher updated to account for B2M schema changes</li> <li>• No changes to any API or FTP protocols</li> <li>• No changes to Settlements Direct interface</li> <li>• Potential impacts to the participant data model, schemas, and technical specifications</li> </ul> <p>For details refer Final HLIA.</p>

## Market, Industry and AEMO impacts

Initial assessment of industry and AEMO impacts are stated below based AEMO's Final HLIA.

### Market & Industry Stakeholders

- FRMPs
- Metering Data Providers

### AEMO Teams

- Operations (Settlements, Prudentials, Metering)
- Digital (Wholesale Solutions, Retail Solutions)



## Next steps

- Wholesale Procedures consultations have commenced:
  - Credit Limit Procedures (CLP) consultation commenced on 4 June 2025. The second stage of the consultation commenced 9 September with the publishing of the draft report and draft procedure, with submissions due 13 October 2025.
  - First stage of the NEM Settlement Estimates Policy consultation commenced 9 September 2025, with submissions due 13 October 2025.
  - Reallocation Timetable consultation expected to commence in November 2025.
- Retail Procedures consultation is expected to commence 14 October 2025 with final publication on 23 February 2026.
- AEMO to publish draft plan for transitioning the NEM to a 9-business day settlement cycle including a Transitional Settlement Calendar by 20 October 2025, with final plan to be published by 5 December 2025.
- Final Rule will commence on 9 August 2026. AEMO will have from 9 August 2026 to 17 October 2026 to complete this transition from a 20 business day to 9 business day settlement period.

### Where can I find more information?

AEMC Rule Change Shortening the Settlement Cycle: <https://www.aemc.gov.au/rule-changes/shortening-settlement-cycle>

AEMO NEM Reform Program – Shortening the Settlement Cycle: <https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/shortening-the-settlement-cycle>

# Allowing AEMO to accept cash as credit support

*To allow AEMO to accept cash as credit support (in addition to bank guarantees) against credit support requirements*

## Problem to be solved

In the NEM, participants are required under the NER to provide credit support to meet prudential requirements. This credit support is held as collateral in the NEM to adequately cover participant operational exposure at the level of the prudential standard. Under the current arrangements, credit support is only allowed in the form of bank guarantees from lenders who meet the acceptable credit criteria and rating<sup>31</sup>. Delta Electricity submitted a rule change proposal to allow market participants to provide cash to meet their credit support requirements. The rule change proposal set out the challenges with market participants accessing bank guarantees including the administrative burden, cost and difficulty for participants with emissions intensive assets securing bank guarantees due to lender ESG policies.

## Solution

Following this rule change request and stakeholder consultation, the AEMC have made a final determination to amend the credit support requirements to allow cash as credit support ('cash security') up to a limit of \$20 million per market participant. Multiple layers of protections have been introduced to manage insolvency risks. The final rule also allows AEMO to distribute any delayed credit support payments to any short-paid participants through the routine revised statements process, reducing the length of time participants are short paid.

## Key benefits

The final determination states the key benefits of these changes to the credit support arrangements under the draft rule are:

- Reduced costs/increased flexibility: participants can choose the credit support option that is lowest cost and most suitable to them.
- Reduced risk of failing to provide credit support: participants would be able to use cash if they need to provide credit support on short notice or if they are unable to obtain other forms of credit support.

## Wholesale Electricity Market Reforms

### Key Dates

- Draft Determination - 3 APR 2025
- Final Determination - 26 JUN 2025
- AEMO's Final High Level Implementation Assessment - 7 AUG 2025
- Rule Commencement – 1 NOV 2026

<sup>31</sup> NER 3.3.3 and 3.3.4

## Changes proposed

Allowing AEMO to accept cash as credit support final rule would deliver greater flexibility for participants in the provision of credit support as outlined above. System and procedural changes would need to be facilitated to affect the final rule.

The table below summarises the changes proposed based on the Final HLIA.

Procedures & Guidelines	Market Applications	Market Interfaces
<p>New procedures and guidelines:</p> <ul style="list-style-type: none"> <li>Cash security guidelines – details the process, terms and conditions for provision and acceptance of cash as credit support (published 1 Aug 2026 or 3 months prior to rule commencement)</li> </ul> <p>Minor updates to existing procedures and guidelines to implement cash security:</p> <ul style="list-style-type: none"> <li>National Electricity Market Credit Limit Procedures (Consultation required)</li> <li>Guide to AEMO credit support management</li> <li>Guide to NEM credit support</li> <li>Guide to NEM prudential dashboard</li> <li>NEM Settlement Prudential Supervision Process</li> </ul>	<ul style="list-style-type: none"> <li>Settlements - PCO (Participant Current Outstandings) table(s) updated to include cash security</li> <li>Prudential engine updated to include cash security. New screens for Prudential team to verify/approve cash security. Transfer of security deposit to cash security (vice versa)</li> <li>Billing - Interest calculations on cash to be incorporated into weekly bill run. Amount of the returned cash security will be included on the bill. Other updates to align make up payments and shortfall.</li> <li>Update to settlement reports, invoices, shortfall statements and makeup notes. A cash security will be returned to participants via existing payments function.</li> <li>Data model updated to show cash security in credit support</li> </ul>	<p>Markets Portal:</p> <ul style="list-style-type: none"> <li>New screens and workflows for cash security may be used by participants to identify the provision of cash security and to request returns and provide instructions</li> <li>Credit support dashboard and Prudentials Dashboard updated to include Cash Security</li> </ul> <p>Note: Markets portal changes are not mandatory however will increase operational effectiveness and reduce operational risks</p>

## Market, Industry and AEMO impacts

### Market & Industry Stakeholders

- Financially Responsible Market Participants
- Participants who are receiving net payments in NEM settlements (mostly Generators)

### AEMO Teams

- Operations (Market management, Settlements, Prudentials)
- Finance and Legal
- Digital (Wholesale Solutions, Other systems)

## Next steps

- Publication of Cash Security guidelines before 1 August 2026
- Rule commencement 1 November 2026 with the aim of full implementation (based on the AEMC's final determination). Full automation by May 2027 at the latest.
- Industry Readiness commencing Q3 2026.



### **Where can I find more information?**

AEMC Rule Change Allowing AEMO to accept cash as credit support: <https://www.aemc.gov.au/rule-changes/allowing-aemo-accept-cash-credit-support> <https://www.aemc.gov.au/rule-changes/allowing-aemo-accept-cash-credit-support>

AEMO NEM Reform Program – Cash Security: <https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/cash-as-credit-support>

# PEC Market Integration (Interregional settlement residue arrangements for transmission loops)

*Integration of Project EnergyConnect (PEC) into AEMO's systems.*

## Problem to be solved

When implemented PEC will provide approximately 800 MW of transmission capacity between New South Wales and South Australia. This presents new challenges for the NEM with the creation of a physical transmission loop between adjacent regions. The occurrence of loop flows around the transmission loop has the potential to give rise to the 'spring washer' pricing effect<sup>32</sup>, resulting in increased counter-price flows and negative interregional settlement residues. To ensure PEC is operated efficiently, changes are required to the allocation of the new negative interregional settlement residues that occur around the loop and AEMO's Automation of Negative Residue Management procedure.

## Solution

On 25 September 2025, the AEMC made a final determination and more preferable final rule that will net off inter-regional settlements residue (IRSR) in transmission loops. This Rule change aligns with AEMO's intention to update its negative residue management (or 'clamping') procedure to allow negative interregional settlement residue to accrue when the loop is in surplus, acknowledging the natural occurrence of counter-priced flow under loop topology.

Under the final rule:

- If the net loop IRSR is positive, it will be distributed to SRD unit holders based on the net energy transfer ('net trade') between the connected regions, instead of the physical flows on the interconnectors.
- If the net loop IRSR is negative, it will be recovered from the CNSPs in each connected region in proportion to regional demand.
- Settlements residue auction (SRA) proceeds and positive IRSR attributed to any unsold units ('unsold IRSR') will be allocated to the importing region's CNSP.

The final rule will commence on 2 October 2025, noting that the new IRSR arrangements for transmission loops will not take effect until a transmission loop is in operation in the NEM dispatch engine and changes to AEMO's settlement systems have been implemented. The final rule requires project Go-live to occur no earlier than 1 October 2026 and no later than 2 November 2026.

## Wholesale Electricity Market Reforms

### Key Dates

- AEMO's Draft High Level Implementation Assessment v1 – 19 DEC 2024
- AEMC's Final Determination – 25 SEP 2025
- New IRSR arrangements come into effect – by 2 November 2026

<sup>32</sup> The 'spring washer effect' occurs when transmission constraints happen within a loop, causing pricing anomalies in this case between regions.



## Changes proposed

The changes propose sit across two systems:

- AEMO’s Automative Negative Residue procedure – update the constraint process for counter-priced flows that occur within the transmission loop. This will be completed by AEMO in 2025 via a formal stakeholder procedure consultation to allow negative interregional settlement residue to accrue when the loop is in surplus, acknowledging the natural occurrence of counter-priced flow under loop topology.
- Interregional settlement residue arrangements for transmission loops – NER amendments to the methodology for allocation of negative interregional settlement residue as set out in the AEMC’s final determination.

## Key benefits

Changing the methodology for the allocation of negative interregional settlement residues under loop topology seeks to better reflect the dynamics of power flows within a loop by acknowledging that increased positive interregional settlement residues are enabled by the occurrence of counter priced flows. Updating AEMO’s clamping procedure will help to maximise the value and efficiency of power flowing along PEC.

## Market, Industry and AEMO impacts

Initial assessment of industry and AEMO impacts are stated below based AEMO’s Draft HLIA.

### Market & Industry Stakeholders

- Coordinating Network Service Providers
- Generators / Integrated Service Providers
- SRA Participants

### AEMO Teams

- Operations (Settlements & Prudentials, Metering)
- Digital (Wholesale Solutions)

## Next steps

- AEMO continues to work on integration into AEMO’s market systems through two packages of work for 2026.
- AEMO has transitional provisions in the final rule to commence operation of the transmission loop in the NEM dispatch engine no earlier than 1 October 2026, and make changes to interregional settlement residue arrangements no later than 2 November 2026.



### **Where can I find more information?**

AEMO NEM Reform Program – PEC Market Integration: <https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/project-energyconnect-market-integration-project>

AEMC Interregional settlements residue for transmission loops: <https://www.aemc.gov.au/rule-changes/inter-regional-settlements-residue-arrangements-transmission-loops>

AEMO PEC Market Integration Papers: <https://aemo.com.au/en/consultations/current-and-closed-consultations/project-energy-connect-market-integration-paper>



# Appendices

Program Relationships / Dependencies  
ESB Post-2025 Program Pathway Overview  
References



# Program Relationships / Dependencies

AEMO, the RDC and wider participant cohort continue to collaborate on managing the implementation risks and challenges associated with delivering the breadth of initiatives across the Program including identifying opportunities to bundle and sequence where possible. The table below provides an example of the potential bundling and sequencing opportunities under consideration in development of the Roadmap and delivery of the Program. Further assessment is to be completed, particularly in relation to the delivery of AEMO strategic and foundational initiatives (IDAM, IDX and PC) and how bundling and/or sequencing these initiatives may drive wider efficiencies across the Program.

Initiatives	Timing	Functional Overlap	Rationale	Next Steps
Unlocking CER benefits through flexible trading & Integrating price responsive resources into the NEM	Aligned	Medium	<ul style="list-style-type: none"> <li>Unlocking CER benefits through flexible trading enables the management of controllable resources through a second connection point. The framework developed for flexible trading arrangements to support the management of controllable resources will be used by the integrating price responsive resources into the NEM initiative</li> <li>Opportunities to bundle through a consolidated procedure consultation process of both initiatives if timing permits</li> </ul>	<ul style="list-style-type: none"> <li>Sequencing opportunity reflected in the Roadmap</li> <li>Bundling opportunity to be monitored</li> </ul>
SCADA Lite & Integrating price responsive resources into the NEM	Aligned	Medium	<ul style="list-style-type: none"> <li>SCADA Lite will provide a platform for participants, such as VPPs, to communicate with AEMO and provide visibility of their DER device activities a component of the Integrating price responsive resources into the NEM initiative</li> </ul>	<ul style="list-style-type: none"> <li>Sequencing opportunity reflected in the Roadmap</li> </ul>
Enhancing Reserve Information & IDX Transition	Potential alignment	Low	<ul style="list-style-type: none"> <li>IDX Transition could enable faster release of reporting data to participants alongside Dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Further assessment to be completed during planning phase subject to IDX consultation with industry</li> </ul>
Metering Services Review & IDX Foundation	Aligned	Medium	<ul style="list-style-type: none"> <li>Accelerated smart meter deployment PQ data to utilise IDX Foundation capability to enable PQ data to be delivered on a strategic platform, meaning data able to be provided more frequently and with less impact on existing market transactional systems</li> </ul>	<ul style="list-style-type: none"> <li>IDX Components and approach to support PQD (release 1 July 2026) have been confirmed. Detailed design and delivery is progressing, and will continue throughout the remainder of 2025 and into 2026.</li> </ul>
CER Data Exchange & IDX Foundation	Aligned	Strong	<ul style="list-style-type: none"> <li>CER Data Exchange will need to transact DER-related information between existing and new participants. IDX Foundation could provide the foundational capability to do this</li> </ul>	<ul style="list-style-type: none"> <li>CER Data Exchange Industry Co-design project has proposed that leveraging IDAM and IDX in a CER Data Exchange as the preferred option.</li> </ul>
CER Data Exchange & IDAM	Aligned	Strong	<ul style="list-style-type: none"> <li>CER Data Exchange may require management of the identities of parties who are not existing market participants, and their relationships to DER assets. IDAM solution could support this.</li> </ul>	
Dispatch Target State and IDX Transition (Wholesale)	TBC	Strong	<ul style="list-style-type: none"> <li>Bundling IDX Transition for Wholesale to future Dispatch Target State would likely result in efficiencies to delivery for</li> </ul>	<ul style="list-style-type: none"> <li>Dispatch Target State tactical uplift to be completed by November 2025 and subject to</li> </ul>

Initiatives	Timing	Functional Overlap	Rationale	Next Steps
			participants (e.g., retailers and generators). However, it may increase the risk of delivery.	future checkpoints. Potential opportunities to be reassessed at a future point in time
FRC Target State & IDX Transition (Retail)	TBC	Strong	<ul style="list-style-type: none"> <li>Bundling IDX Transition for Retail to FRC target state could result in high efficiencies for retailers, distributors and metering providers due to almost full functional overlap from FRC target state</li> </ul>	<ul style="list-style-type: none"> <li>FRC Target State on-hold subject to future checkpoints / assessment. Potential opportunities to be reassessed at a future point in time</li> </ul>

# References

Workstream	Reform Initiative	Reference (link to rule change, market review, or latest ESB publication)
Essential System Services	Enhancing Reserve Information (ERI)	<p>AEMC Rule Change:  <a href="https://www.aemc.gov.au/rule-changes/enhancing-reserve-information-formerly-operating-reserves">https://www.aemc.gov.au/rule-changes/enhancing-reserve-information-formerly-operating-reserves</a></p> <p>AEMO ERI Project:  <a href="https://aemo.com.au/en/initiatives/major-programs/nem-reform-program/enhancing-reserve-information-project">https://aemo.com.au/en/initiatives/major-programs/nem-reform-program/enhancing-reserve-information-project</a></p>
	Improving security frameworks for the energy transition (ISF)	<p>AEMC Rule Change:  <a href="https://www.aemc.gov.au/rule-changes/improving-security-frameworks-energy-transition">https://www.aemc.gov.au/rule-changes/improving-security-frameworks-energy-transition</a></p> <p>AEMO ISF Project:  <a href="https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/improving-security-frameworks-for-the-energy-transition">https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/improving-security-frameworks-for-the-energy-transition</a></p>
DER & Flexible Demand	Unlocking Consumer Energy Resources (CER) benefits through flexible trading	<p>AEMC Rule Change Unlocking CER benefits through flexible trading:  <a href="https://www.aemc.gov.au/rule-changes/unlocking-CER-benefits-through-flexible-trading">https://www.aemc.gov.au/rule-changes/unlocking-CER-benefits-through-flexible-trading</a></p> <p>AEMO Unlocking CER benefits through flexible trading Project:  <a href="https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/flexible-trading-arrangements">https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/flexible-trading-arrangements</a></p>
	Integrating price responsive resources into the NEM	<p>AEMC Rule Change Consultation:  <a href="https://www.aemc.gov.au/rule-changes/integrating-price-responsive-resources-nem">https://www.aemc.gov.au/rule-changes/integrating-price-responsive-resources-nem</a></p> <p>AEMO IPRR Project:  <a href="https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/integrating-price-responsive-resources-into-the-nem">https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/integrating-price-responsive-resources-into-the-nem</a></p>
	Dynamic Operating Envelops	<p>DCCEE National CER Roadmap July 2024:  <a href="https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf">https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf</a></p> <p>AER Final Export Limit Guidance note October 2024:  <a href="https://www.aer.gov.au/system/files/2024-10/Export%20Limits%20Guidance%20Note.pdf">https://www.aer.gov.au/system/files/2024-10/Export%20Limits%20Guidance%20Note.pdf</a></p> <p>Project EDGE final report, Chapter 4:  <a href="https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en">https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en</a></p>
Data Strategy	Distribution Local Network Services	<p>DCCEE National CER Roadmap July 2024:  <a href="https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf">https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf</a></p> <p>AEMO, Mondo, AusNet Services. Project EDGE Final Report October 2023, Chapter 7:  <a href="https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en">https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en</a></p> <p>AEMO Mondo, AusNet Services. Project Edge:  <a href="https://aemo.com.au/en/initiatives/major-programs/nem-distributed-energy-resources-der-program/der-demonstrations/project-edge">https://aemo.com.au/en/initiatives/major-programs/nem-distributed-energy-resources-der-program/der-demonstrations/project-edge</a></p>
	DER Data Hub and Registry Services	<p>DCCEE National CER Roadmap July 2024:  <a href="https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf">https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf</a></p> <p>CER Data Exchange Industry Co-Design:  <a href="https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/markets-and-framework/cer-data-exchange-industry-codesign">https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/markets-and-framework/cer-data-exchange-industry-codesign</a></p> <p>AEMO, Mondo, AusNet Services. Project EDGE Final Report October 2023:  <a href="https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en">https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-final-report.pdf?la=en</a></p> <p>AEMO, Mondo, AusNet Services. Project Edge – DER Data Hub Lessons Learnt:  <a href="https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-der-data-hub-lessons-learnt-final-june-2023.pdf?la=en">https://aemo.com.au/-/media/files/initiatives/der/2023/project-edge-der-data-hub-lessons-learnt-final-june-2023.pdf?la=en</a></p>

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	DER Operational Tools	DCCEE National CER Roadmap July 2024: <a href="https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf">https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf</a> AEMO Operations Technology Roadmap: <a href="https://aemo.com.au/en/initiatives/major-programs/operations-technology-program/operations-technology-roadmap">https://aemo.com.au/en/initiatives/major-programs/operations-technology-program/operations-technology-roadmap</a>
	Electric Vehicle Data	AEMO Recommendations Paper April 2025: <a href="https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/electric-vehicle-data">https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/electric-vehicle-data</a> AEMO Electric Vehicle Supply Equipment – Rule change retraction: <a href="https://www.aemc.gov.au/sites/default/files/2024-10/AEMO%20-%20Retraction%20EVSE%20Standing%20Data%20Rule%20Change%20Request.pdf">https://www.aemc.gov.au/sites/default/files/2024-10/AEMO%20-%20Retraction%20EVSE%20Standing%20Data%20Rule%20Change%20Request.pdf</a> DCCEE National CER Roadmap July 2024: <a href="https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf">https://www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf</a> ESB Electric Vehicle Supply Equipment Standing Data – Consultation Outcomes Report June 2023: <a href="https://www.datocms-assets.com/32572/1688103470-attachment-b-evse-standing-data-consultation-paper-final-june-2023.pdf">https://www.datocms-assets.com/32572/1688103470-attachment-b-evse-standing-data-consultation-paper-final-june-2023.pdf</a>
	Bill Transparency	AEMC Market Review – Billing Data Transparency: <a href="https://www.aemc.gov.au/market-reviews-advice/billing-data-transparency">https://www.aemc.gov.au/market-reviews-advice/billing-data-transparency</a> ESB Bill Transparency Consultation Paper (July 2023): <a href="https://www.datocms-assets.com/32572/1688619055-esb-billing-transparency-consultation-paper-final-july-2023.pdf">https://www.datocms-assets.com/32572/1688619055-esb-billing-transparency-consultation-paper-final-july-2023.pdf</a>
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	Industry Data Exchange	As above.
	Portal Consolidation	As above.
	FRC Target State	To be developed.
<b>Retail Electricity Market Improvements</b>	Metering Services Review (Accelerating Smart Meter Deployment)	AEMC Rule Change Accelerating smart meter deployment: <a href="https://www.aemc.gov.au/rule-changes/accelerating-smart-meter-deployment">https://www.aemc.gov.au/rule-changes/accelerating-smart-meter-deployment</a> AEMO Metering Services Review (Accelerating Smart Meter Deployment) Project: <a href="https://aemo.com.au/en/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/metering-services-review--accelerating-smart-meter-deployment">https://aemo.com.au/en/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/metering-services-review--accelerating-smart-meter-deployment</a> AEMO Metering Services Review – Consultation Package 1: <a href="https://www.aemo.com.au/consultations/current-and-closed-consultations/2024-metering-services-review-package-1">https://www.aemo.com.au/consultations/current-and-closed-consultations/2024-metering-services-review-package-1</a> AEMO Metering Services Review – Consultation Package 2: <a href="https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-metering-services-review-package-2">https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-metering-services-review-package-2</a>  AEMO Metering Services Review – Consultation Package 3: <a href="https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-metering-services-review-package-3">https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-metering-services-review-package-3</a>

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	Real-time data for consumers	AEMC Rule Change Consultation: <a href="https://www.aemc.gov.au/rule-changes/real-time-data-consumers">https://www.aemc.gov.au/rule-changes/real-time-data-consumers</a> AEMO's Real-Time Data Project: <a href="https://www.aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/real-time-data">https://www.aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/real-time-data</a>
<b>Wholesale Electricity Market Reforms</b>	Shortening the Settlement Cycle	AEMC Rule Change Shortening the Settlement Cycle: <a href="https://www.aemc.gov.au/rule-changes/shortening-settlement-cycle">https://www.aemc.gov.au/rule-changes/shortening-settlement-cycle</a> AEMO NEM Reform Program – Shortening the Settlement Cycle Project: <a href="https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/shortening-the-settlement-cycle">https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/shortening-the-settlement-cycle</a>
	Allowing AEMO to accept Cash as Credit Support	AEMC Rule Change Allowing AEMO to accept Cash as Credit Support: <a href="https://www.aemc.gov.au/rule-changes/allowing-aemo-accept-cash-credit-support">https://www.aemc.gov.au/rule-changes/allowing-aemo-accept-cash-credit-support</a> AEMO NEM Reform Program - Cash as Credit Support: <a href="https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/cash-as-credit-support">https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/cash-as-credit-support</a>
	PEC Market Integration (Interregional settlement residue arrangements for transmission loops)	AEMO NEM Reform Program – PEC Market Integration Project: <a href="https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/project-energyconnect-market-integration-project">https://aemo.com.au/initiatives/major-programs/nem-reform-program/nem-reform-program-initiatives/project-energyconnect-market-integration-project</a> AEMC Interregional settlements residue for transmission loops: <a href="https://www.aemc.gov.au/rule-changes/inter-regional-settlements-residue-arrangements-transmission-loops">https://www.aemc.gov.au/rule-changes/inter-regional-settlements-residue-arrangements-transmission-loops</a> AEMO PEC Market Integration Papers: <a href="https://aemo.com.au/en/consultations/current-and-closed-consultations/project-energy-connect-market-integration-paper">https://aemo.com.au/en/consultations/current-and-closed-consultations/project-energy-connect-market-integration-paper</a>