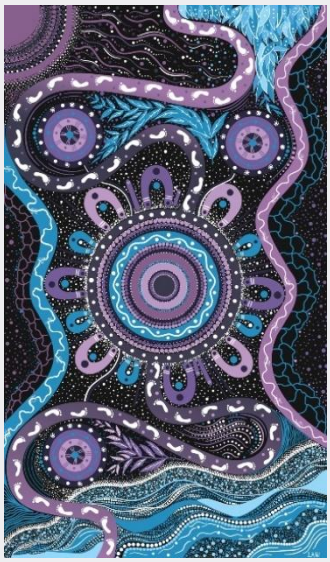
FINAL Implementation Assessment for Relevant Level Method (RLM)

November 2025

Ref: IA-2025-02

Preliminary assessment of changes, impacts and risks to implement changes to the RLM and two other related changes affecting compensation for renewable generators and batteries.



We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

We acknowledge that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands. We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country; and hope that our work can benefit both people and Country.

'Journey of unity: AEMO's Reconciliation Path' by Lani Balzan

AEMO Group is proud to have launched its first Reconciliation Action Plan in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation - a collaborative endeavour that honours First Nations cultures, fosters mutual understanding, and paves the way for a brighter, more inclusive future.

Important notice

Purpose

AEMO has prepared this document to provide preliminary information about the implementation of the Relevant Level Method (RLM) initiative.

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Version control

Version	Release date	Changes
1	15/09/2025	N/A
1.1	18/09/2025	Minor amendment on page 10, addressing a potentially misleading causal attribution.
2	03/11/2025	Amended from Draft to Final version, following consultation. Added new cost information. Added review of MPWG feedback. Minor updates to Table 6 to align with project outcomes. Removed row in Table 5 concerning API documentation, since only internal APIs will be subject to change.

Contents

1 At a glance

Problem / challenge	The current Relevant Level Method (RLM) is no longer fit for purpose, as it lacks the sophistication to be able to fairly assess wind and solar generators' contribution to reliability. The current RLM is also not well suited to storage technologies like batteries. Stakeholders have also raised concerns about the opacity of the method and the difficulty in validating its outcomes. Following the recent Reserve Capacity Mechanism (RCM) Review, the Economic Regulation Authority (ERA) and Energy Policy Western Australia (EP WA) made changes to the Electricity System & Market (ESM) Rules that give effect to an improved RLM. The new RLM will use more complex numerical models that simulate system conditions and better evaluate the contribution of different forms of generation and storage under different scenarios. This will enable a fairer assessment of available capacity and more accurate allocation of Certified Reserve Capacity (CRC). AEMO must therefore implement the revised RLM in accordance with the rules.
Proposed solution	AEMO will need to fully replace the existing RLM. Among other things, the new RLM needs more sophisticated numerical models and must be able to update adjustment factors dynamically, responding to technology type, seasonality and system conditions, rather than relying on fixed values. AEMO will also make amendments to the calculation of Peak Electric Storage Resource Obligation Intervals (Peak ESROI) and implement the 10 Year Fixed Pricing for Renewable Fuelled and Long Duration Facilities Mechanism (10-YFP Mechanism), in line with recent rule changes.
Timing	AEMO intends to implement the new RLM by April 2026, in preparation for the 2026 Reserve Capacity Cycle.
Estimated cost	$3.4 million (including capex and opex), of which $2.9 million in FY26.
Impact on market participants	The RLM is used to determine the CRC of Intermittent Generating Systems and Non-Scheduled Facilities[1]. It therefore has a direct financial impact on market participants by affecting the quantity of CRC assigned and their associated capacity payments in the RCM. Market participants will therefore need to: • Review the new RLM calculation and consider how it may apply to their CRC allocation. • Consider the electric storage resource (ESR) duration requirement with the 10-year guarantee period and decide whether to apply a new ESR for CRC.

[1] Except for Non-Scheduled Facilities that comprise solely of electric storage resources (ESR) that have not been in operation for the full 5-year RLM Reference Period.

2 Introduction

This section explains:

- The background to the initiative that is the subject of this IA.
- The purpose of this IA.
- Key dates for the IA publication/consultation process.
- How stakeholders can respond to the material set out in this IA

2.1 Background

The RLM is a key component of the RCM in the Wholesale Electricity Market (WEM). It determines how many capacity credits a facility – especially an intermittent generator like wind and solar – can receive based on its contribution to system reliability.

In September 2023, Energy Policy WA recommended changes to the RLM detailed in Appendix 9 of the ESM Rules. This was initially raised in a review by the ERA[2], and subsequently evaluated by EPWA as part of the RCM Review conducted in 2022 and 2023.

On 14 January 2025, the Minister for Energy gazetted the Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025[3] These amending rules included changes to the RLM detailed in Appendix 9 of the WEM Rules (shortly after renamed the Electricity System and Market Rules[4]). AEMO intends to implement the new RLM for the 2026 Reserve Capacity Cycle.

2.1.1 What needs to be done

The amending rules require a full replacement of the existing RLM. The new RLM needs more sophisticated numerical models that simulate system conditions and evaluate generator contributions under system stress scenarios. The RLM also needs to update adjustment factors dynamically, responding to technology type, seasonality, and system conditions, rather than fixed values.

We plan to bundle delivery of the RLM changes with separate changes required to Peak ESROI and the policy of 10 Year Fixed Pricing for Renewable Fuelled and Long Duration Facilities[5] – abbreviated hereafter as the '10-YFP Mechanism'.

[2] Initiated in 2018. See https://web.archive.org/web/20190326132027/https://www.erawa.com.au/electricity/wholesale-electricity-market/methodology-reviews/review-of-method-used-to-assign-capacity-to-intermittent-generators-2018.

[3] https://www.wa.gov.au/system/files/2025-01/wholesale_electricity_market_amendment_rcm_reviews_sequencing_rules_2025-1.pdf.

[4] The new name for the Rules took effect on 6 February 2025, https://www.wa.gov.au/government/announcements/wholesale-electricity-market-rules-renamed-electricity-system-and-market-rules

[5] See section 2.2 of the Scope of Work for the WEM Investment Certainty Review

2.2 Purpose of this implementation assessment

This implementation assessment (IA) is published to help participants understand what changes are being made, how it may affect them, and what they might need to do in response. This IA describes how we propose to implement the following:

- Change 1: implement the modified RLM from the 2028-29 Capacity Year.
- Change 2: enable dynamic provisioning of Peak ESROI in the RCM from the 2026-27 Capacity Year.
- Change 3: implement the 10-YFP Mechanism for the 2028-29 Capacity Year.

This IA outlines the proposed system, process and operational changes and the indicative timeline likely to be required to implement the changes. It also provides our assessment of what these changes may mean for Rule Participants in the WEM.

2.3 Consultation and feedback

In the draft version of this IA, we invited feedback on our proposed implementation approach, highlighting the questions posed in Table 1. We received feedback from several MPWG members, which is summarised in Appendix A4. Our responses to all the items raised are set out next to each item in the same appendix and we have updated this IA in line with those responses.

Table 1 Specific feedback sought

Chapter of this IA	Suggested feedback topics
Overview	• Has AEMO fully considered the problem / challenge? Is there anything additional that needs to be factored into the solution? • Do you agree with AEMO's proposed implementation approach? • Is there precedent elsewhere you recommend we could learn from?
System impacts	• What changes, deletions or additions would you propose and why? • Is AEMO's proposed design consistent with the policy design set out in the Exposure Draft?
Impacts on published documentation	• Do you agree with AEMO's summary of impacts on published documentation? Is there anything missing?
External impacts	• Have all the potential impacts on Rule Participants been captured? Is there anything material missing? • What other factors should AEMO consider? • Is there anything that could be reasonably done to reduce the impact (including implementation costs) for participants?
Implementation	• Have the key implementation risks been adequately captured? If not, what's missing or incorrect?

Comments should be sent via email to majorprojects@aemo.com.au.

3 Overview

This section explains the rationale for the initiative, describing both the underlying problem to be addressed and the response(s) that AEMO has put forward. This section also summarises rule changes that may underpin or otherwise be relevant to a new initiative.

3.1 Change 1: RLM

3.1.1 The Problem/Opportunity

The current RLM was designed for an environment where intermittent generation made up a small proportion of the fleet. As the share of wind and solar has grown, market participants have become concerned about the method's accuracy and fairness. For example, the RLM often fails to reflect the true reliability value of intermittent generators. It uses historical outputs during selected high-demand intervals, but this doesn't always correlate with actual system stress or loss of load probability.[6]

The current RLM is also relatively simple, using static parameters that may not reflect changing conditions, technology types, or correlations between output and demand. This is a significant limitation given the variability of wind and solar generation, and can cause over or under-crediting generators, which can distort incentives and potentially compromise system reliability.

3.1.2 Response

EPWA has made a series of changes to the ESM Rules that give effect to an improved RLM. The fundamental change is a move toward Effective Load Carrying Capability (ELCC) based modelling, which is a probabilistic measure of reliability contribution, rather than simple historical averages.

The new RLM introduces numerical models that simulate system conditions and better evaluate the contribution of different forms of generation and storage under system stress scenarios. The ERA and Energy Policy WA intend that this will provide:

- a fairer assessment of available capacity; and
- a more economically efficient allocation of CRCs.

[6] Relevant level method review 2018 - Capacity valuation for intermittent generators: Final report, https://web.archive.org/web/20250329044058/https://www.erawa.com.au/cproot/20328/2/Relevant%20level%20method%20review%202018%20-%20Final%20report.pdf

Implementing the revised RLM

Implementing the amending rules will require a full replacement of the existing RLM. This is because the existing RLM uses straight-forward arithmetic calculations and is not designed to support specific statistical or mathematical methods or involve large volumes of data.

Our approach to implementing the new RLM comprises a series of steps, presented below.

Step 1 – Determining inputs for the relevant level calculation

- **Candidate Historical Output** – AEMO will assess each Candidate for each Trading Interval in the RLM Reference Period and identify:
  - Any Trading Intervals in the RLM Reference Period that fall after the Full Operation Date for the Candidate where the output of the parent Facility was restricted by a Dispatch Instruction or Network limitation and estimate the output of that Candidate if it had not been restricted.
  - The higher quantity of energy between the actual quantity and AEMO's estimate for each Candidate for each Trading Interval in the RLM Reference Period.
- **Reference Demand Profile** – AEMO will adjust the observed demand for expected future levels of rooftop photovoltaic generation and then scale the result to forecast peak demand and energy in the relevant Capacity Year.
- **Non-Candidate Availability Scenarios** – AEMO will use a binomial sampling method to simulate outages of the Facilities (Non-Candidates) that are not assessed via the RLM. AEMO will determine the Default Capacity Obligation Quantity for each Non-Candidate for each Trading Interval in the RLM Reference Period.
- **Facility Average Performance Level** – AEMO will determine the Facility Average Performance Level for each Candidate by averaging the Historical Output over the set of Peak SWIS Trading Intervals in the ELCC Reference Period.

Step 2 – Determining Relevant Levels for Candidate Facilities

AEMO will determine Relevant Levels for each Candidate as part of a Candidate Fleet (Committed, Proposed, Early)[7]. To determine the Relevant Level for each Candidate, the Fleet Capacity and Candidate Scaling Factor of the given Candidate Fleet are required.

- **Fleet Capacity**[8] – AEMO will determine the total capacity to be allocated to given Candidate Fleet. A key part will be calculating the ELCC of the Candidate Facility fleet for a given Time Period.
- **Effective Load Carrying Capacity** – AEMO will implement a mathematical solution of a set of equations to determine the ELCC of the Candidate Facility fleet for a given Time Period. The set of equations will include

[7] AEMO does not intend to implement Relevant Levels for Conditional Candidates as they are not able to be determined in the RCM system

[8] Committed Fleet Capacity, Committed and Proposed Fleet Capacity, Proposed Fleet Capacity, Committed Proposed and Early Fleet Capacity

Initial Demand Adjustment and Final Demand Adjustment equations, which will require a new modern technological solution to calculate.

- **Relevant Level for Candidates** – AEMO will determine the Relevant Level by applying the Candidate Scaling Factor against the Facility Average Performance Level of the Candidate.

Step 3 – Publishing Relevant Level Inputs and Results

- AEMO will publish the RLM inputs no later than 17:00 on the ESOO Publication Date set in the Capacity Cycle Timeline (nominally 10 June).
- The following inputs will be published on the WEM website[9]:
  - For each Committed Candidate Facility in Commercial Operation the Candidate Historical Output and the Facility Average Performance Level.
  - For the RLM Reference Period the Distributed Energy Resources (DER) Adjusted Demand Profile, the Observed Demand and the Reference Demand Profile.
- AEMO will publish the estimated historical and future levels of behind-the-meter photovoltaic capacity in the South West Interconnected System (SWIS) used to determine the DER Adjusted Demand Profile for the RLM Reference Period in the ESOO.
- AEMO will publish the RLM results no later than 17:00 on the Publish Assigned CRC date set in the Capacity Cycle Timeline (nominally 27 August).
  - The Fleet Capacity for the Committed, Proposed and Early Candidate Fleets
  - For each Candidate Facility the Candidate Type, Candidate Historical Output and the Facility Average Performance Level.

3.2 Change 2: Peak ESROI

3.2.1 The Problem/Opportunity

The projected electricity generation capacity will fall short of peak demand in upcoming years. This shortfall, especially during heatwaves, underscores the urgent need for extended-duration battery storage. To address this, the RCM must evolve to properly value ESR and offer incentives that ensure they are available and responsive when needed most.

[9] AEMO | Reserve Capacity Mechanism

3.2.2 Response

To align our systems and processes with the Peak ESROI-related rule changes, we propose the following key changes:

- **Dynamic ESROI provisioning**: System updates to replace fixed eight interval ESROI for a Capacity Year with a variable Mid Peak ESROI (single interval), allowing changes prior to one day ahead of a Trading Day.
- **Annual ESR Duration Requirement**: System updates to allow ESR duration to be set each Capacity Year. ESR duration will be fixed for a 10-year period for applicable ESR Components. ESR Components outside the 10-year period or are upgraded will automatically receive the annual ESR duration.
- **Variable ESROI Windows**: System updates to allow ESROI for each ESR component to be determined based on the Mid Peak ESROI and the assigned ESR Obligation Duration.

All changes must be implemented by April 2026 for the 2026 Reserve Capacity Cycle[10].

3.3 Change 3: 10-YFP Mechanism

3.3.1 The Problem/Opportunity

EPWA's 2024 WEM Investment Certainty (WIC) Review sought to address stakeholders' concerns that the market is not providing price signals sufficient to drive efficient investment in renewable generation capacity. An issue raised by potential investors was that investments in renewable generation may become unviable due to:

- The potential decrease in energy market prices when renewable generators with low operating costs set the market price more frequently in the future.
- Uncertainty around the timing and design of national greenhouse gas emission initiatives [11]

One of the responses to these concerns was introduction of the 10-YFP Mechanism, under which a Fixed Reserve Capacity Price is to be paid to eligible facilities, shielding these facilities from year-to-year variability in the Reserve Capacity Price. The mechanism is designed to enhance investment certainty for new and existing facilities – particularly those using renewable energy or long-duration storage. It is included in the Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025[12].

The 10-YFP Mechanism and the RLM both incentivise renewable generation and will commence in the 2026 Reserve Capacity Cycle. As such, it makes sense to implement both changes in parallel.

[10] See Appendix A1.1 Peak ESROI Example for more information

[11] The Wholesale Electricity Market Investment Certainty Review (Initiatives 1 and 2) Consultation Paper, July 2024 https://www.wa.gov.au/system/files/2024-07/the_wholesale_electricity_market_investment_certainty_review_initiatives_1_and2_consultation_paper.pdf, Page 23

[12] https://www.wa.gov.au/government/document-collections/wholesale-electricity-market-amendment-rcm-reviews-sequencing-rules-2025

3.3.2 Response

AEMO will operationalise the 10-YFP Mechanism by making changes to the RCM Operations system. We will update the Flexible Pricing rules, CRC and the Trade Declaration processes and functionality, including:

- Enabling an ESR with long duration to apply for a 10-Year Fixed Price (i.e. a Fixed Reserve Capacity Price).
- Enabling an ESR or Non-Intermittent Generating System that is renewable fuelled to apply for a 10-Year Fixed Price (first 5 years are already calculated under the 5-Year Fixed Price).
- Annual verification for 10-Year Fixed Priced Facilities to check if they should continue to receive a Fixed Price.
- Extending the Fixed Peak RCP calculation to 10 years.
- Extending the Fixed Flexible RCP calculation to 10 years.
- Publishing the 10-Year Fixed Prices to AEMO's Public data site.

3.4 Energy System and Market Rules considerations

Table 2 summarises the relevant regulatory changes.

Table 2 Timings – publication and commencement dates

Step	Date
Exposure Draft Rules published (Energy Policy WA)	
Reserve Capacity Mechanism Review WEM Amending Rules Exposure Draft[13]	17 October 2023
Wholesale Electricity Market Amendment (Miscellaneous Amendments No 3) Rules 2024[14]	10 June 2024
WEM Investment Certainty and RCM Review Amending Rules Exposure Draft [15]	9 December 2024
Gazetted Amendment Rules (Minister for Energy)	
Wholesale Electricity Market Amendment (Reserve Capacity Reform) Rules 2023	12 December 2023
Wholesale Electricity Market Amendment (Miscellaneous Amendments No 3) Rules 2024	4 October 2024
Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025	14 January 2025
Electricity System and Market (Tranche 8) Amending Rules 2025	4 June 2025
Rule Commencement	
Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025, Schedule 2	1 January 2026
Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025, Schedule 3	1 October 2026
Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025, Schedule 5	TBC (1 April 2026)
Electricity System and Market (Tranche 8) Amending Rules 2025, Schedule 3	1 January 2026
Electricity System and Market (Tranche 8) Amending Rules 2025, Schedule 4	1 October 2026
Electricity System and Market (Tranche 8) Amending Rules 2025, Schedule 6	TBC (1 April 2026)

[13] https://www.wa.gov.au/system/files/2023-09/reserve_capacity_review_wem_amending_rules_exposure_draft.pdf

[14] https://www.wa.gov.au/government/publications/exposure-draft-of-the-miscellaneous-amendments-no3-wem-amending-rules

[15] https://www.wa.gov.au/system/files/2024-11/wholesale_electricity_market_rules_exposure_draft_of_wem_investment_certainty_and_rcm_review_amending_rules_v1.1.pdf

4 System impacts

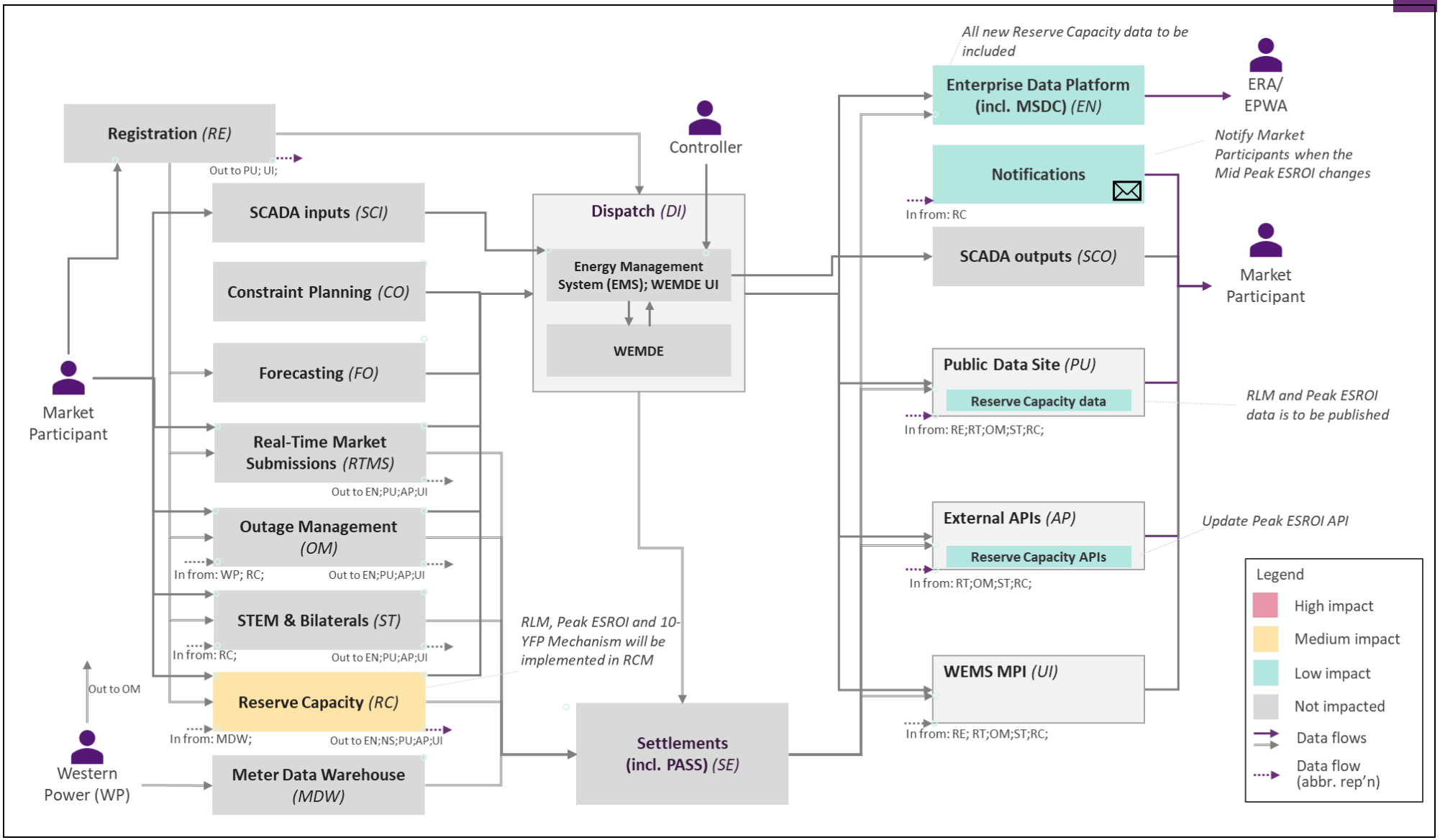
This section provides a high-level summary of the changes to AEMO systems that the response(s) put forward will require. It focusses on system elements that are participant-facing and presents a simplified depiction of AEMO's internal system architecture for that reason.

4.1 AEMO system changes

4.1.1 System impact illustration

The high-level system impacts are illustrated in the figure below (see over page).

Figure 1 Overview of impacts to AEMO systems



4.1.2 System impact summary

System impacts are summarised in the table below.

Table 3 System impacts

System / Component	Impact rating	Summary of impacts		
		Change 1: RLM	Change 2: Peak ESROI	Change 3: 10-YFP Mechanism
Constraint Planning (CP)	No changes	N/A	N/A	N/A
Dispatch (DI) (incl. WEMDE; WEMDE UI; EMS)	No changes	N/A	N/A	N/A
Enterprise Data Platform (EN) (incl. Market Surveillance Data Catalogue (MSDC))	Low	Publish to the EDP new data as stored in AEMOs database systems.	Publish to the EDP new data as stored in AEMOs database systems.	Publish to the EDP new data as stored in AEMOs database systems.
External APIs (AP)	Low	N/A	Update internal routing of ESROI API	N/A
Forecasting (FO)	No changes	N/A	N/A	N/A
Outage Management (OM)	No changes	N/A	N/A	N/A
POMAX (PO)	No changes	N/A	N/A	N/A
Public Data Site (PU)	Low	• Observed Demand, the DER Adjusted Demand Profile, and the Reference Demand Profile are automatically published to the Market Data site by 5:00 pm on the ESOO Publication Date. • Historical Output and Facility Average Performance Level for Committed Candidates in Commercial Operation status are automatically published to the Market Data site by 5pm on the ESOO Publication Date. • Relevant Level Outputs are automatically published to the Market Data site by 5pm on the Publish Assigned CRC date.	Publish the ESROI for each ESR component of an Scheduled Facility (SF) or Semi-Scheduled Facility (SSF) for the Short Term Energy Market (STEM) window (D+8)	Publish 10-year Fixed Prices as part of the "RC Price and Capacity Credits Publication" and the "Component Capacity Credit Publication" on the Public Data Site (PDS)
Real-Time Market Submissions (RT)	No changes	N/A	N/A	N/A
Registration (RE)	No changes	N/A	N/A	N/A

System / Component	Impact rating	Summary of impacts		
		Change 1: RLM	**Change 2: Peak ESROI**	**Change 3: 10-YFP Mechanism**
Reserve Capacity Mechanism (RC)[16]	Medium	• Update the Relevant Level user interface to allow AEMO to upload manually prepared data required for the automated calculations. • Determine and publish the Reference Demand Profile, including interim inputs. • Determine the Historical Output for each Candidate, which represents the quantity of energy produced (or estimated to have been able to have been produced) by each Candidate over the RLM Reference Period. • Determine the Default Capacity Obligation Quantity for each Non-Candidate for each Trading Interval in the RLM Reference Period • Initiate the RLM Solver in Databricks, and process the data returned when the RLM Solver completes its tasks, including calculating and storing final Relevant Level values for Candidates.	• Update ESROI UI to allow AEMO to specify Mid Peak ESROI and to override the Mid Peak ESROI for a specific Trading Day • Determine the ESROI for each ESR component of an SF/SSF using the applicable ESR Duration Requirement and the Mid Peak ESROI • Track ESR Duration Requirement and Long Duration criteria • Display the Peak Electric Storage Resource Obligation Duration (Peak ESROD) for each ESR to the Market Participant	• Implement the WIC changes to the Certification page for ESR and Non-Intermittent Generating System (NIGS) including upgrades • Implement the WIC changes to the Trade Declarations page to allow a Market Participant to nominate for the 10-year Fixed Price when specific requirements are met • Implement the WIC changes to CC Post Processing functionality to check the 10-Year Fixed Price for an existing Component is should still be received • Implement the WIC changes to the Reserve Capacity Price functionality to calculate the Fixed Price for 10-years for an eligible Component
SCADA (SC)	No changes	N/A	N/A	N/A
Settlements (SE)(incl. PASS)	No changes	N/A	N/A	N/A
WEM Notification Service (NS)	Low	N/A	Notify Market Participants when the Mid Peak ESROI changes	N/A
WEMS MPI (WE)	No changes	N/A	N/A	N/A

[16] Refer to Appendix A1.2 for additional details on RCM application impacts

5 Impacts on published documentation

Table 4 lists the published artefacts AEMO will need to update or create as a result of the RLM project.

The project will require changes to several pieces of existing published documentation, summarised in the following table.

Table 4 Summary of published documents affected by the project

Document Name	New/Existing	Complexity of changes	Changes (existing WEM Procedure) or Content (new WEM Procedure)	External briefings or consultation proposed?
AEMO – Reserve Capacity Mechanism User Guide[17]	Existing	Low	Update to reflect changes for: • **Change 2 (Peak ESROI)** • **Change 3 (10-YFP Mechanism)**	No
MSDC Data Dictionary: RCM[18]	Existing	Low	Update to reflect changes for: • **Change 1 (RLM)** • **Change 2 (Peak ESROI)** • **Change 3 (10-YFP Mechanism)**	Yes. Standard consultation process with ERA and Energy Policy WA.
WEM Procedure[19]**: Certification of Reserve Capacity**	Existing	Low	Update to reflect changes for **Change 1 (RLM)** and **Change 3 (10-YFP Mechanism)**	Yes. Standard WEM Procedure consultation process through AEMO Procedure Change Working Group.
WEM Procedure: Declaration of Bilateral Trades	Existing	Low	Update to reflect changes for **Change 3 (10-YFP Mechanism)**	Yes, as above.
WEM Procedure: RLM	New	Major	Update to reflect changes for **Change 1 (RLM)**	Yes, as above.

[17] AEMO | Guides and useful information

[18] MSDC Data Dictionary - Current version

[19] AEMO | WEM Procedures

6 External impacts

This section sets out our assessment of the specific impacts on market participants, and other external stakeholders.

Note: AEMO cannot predict the exact scale or nature of responses required for each external stakeholder. Therefore, this IA does not identify what specific changes stakeholders may need to make. We recommend each stakeholder performs its own assessment based on the information in this IA and any additional information provided in advance of each release.

6.1 Indicative impacts on external stakeholders

Our preliminary assessment of the impacts on other market participants, Energy Policy WA and the ERA are set out in Table 5 (over page).

Table 5 Indicative impacts on external stakeholders

Function or Capability	New/Existing	Entity type affected	Impact rating	Related AEMO functions (WEM)	Remarks
Submit a Certified Reserve Capacity application	Existing	For **Change 1 (RLM)**, Market Participants with new facilities: • SF/SSF with Intermittent Generating System (IGS) component. • Non-Scheduled Facility (NSF) that contains an IGS and/or NIGS. For **Change 3 (10-YFP Mechanism)**, Market Participants with facilities: • SF/SSF with NIGS and/or ESR component.	Low	RCM	**Change 1 (RLM):** • Market Participants can upload independent expert report data to their CRC applications for new Candidates that have not been in operation for the full RLM Reference Period[20]. **Change 3 (10-YFP Mechanism):** • Additional fields required. Changes will be documented in the WEM Procedure: Certification of Reserve Capacity and AEMO – Reserve Capacity Mechanism User Guide.
Submit a Trade Declaration application	Existing	For **Change 3 (10-YFP Mechanism)**, Market Participants with facilities: • SF/SSF	Low	RCM	**Change 3 (10-YFP Mechanism):** Market Participant may nominate for the 10-year Fixed Price when specific requirements are met. Changes will be documented in the *WEM Procedure: Declaration of Bilateral Trades* and *AEMO – Reserve Capacity Mechanism User Guide.*
Retrieve and parse data from Market Surveillance Data Catalogue (MSDC)	Existing	ERA and Energy Policy WA	Low	RCM	**All changes:** Scope to be agreed with end users, but likely to include new data used and outputted by RCM. Changes will be documented in the *MSDC Data Dictionary: RCM*

[20] The RLM Reference Period definition is updated as the five year period that ends on the most recent occurrence of 1 October (i.e. 5 Capacity Years including the most recent complete Capacity Year). For example, for the 2026 Reserve Capacity Cycle (2028-29 Capacity Year), the RLM Reference Period is from 08:00 on 1 October 2020 to 07:30 on 1 October 2025 (2020-21, 2021-22, 2022-23, 2023-24, and 2024-25 Capacity Years).

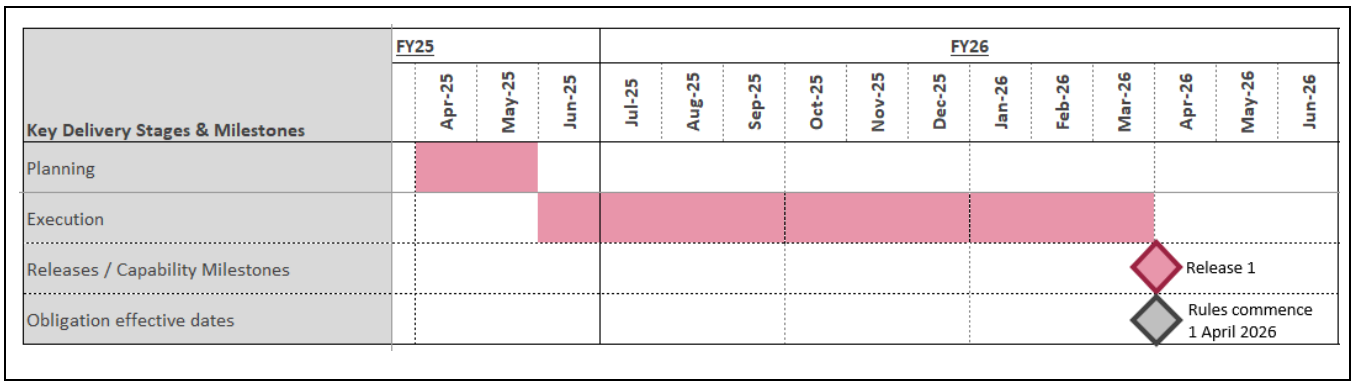
7 Implementation

This section provides a high-level summary of the timeline and cost to implement the initiative and sets out the main implementation risks.

7.1 Indicative implementation timeline

Figure 2 sets out an indicative implementation pathway for the changes described in this IA. The planned date for the Production Release is 25 March 2026. AEMO aims to complete Pre-Production releases two weeks prior to the corresponding Production release. This release will implement all three changes set out in this IA.

Figure 2 Indicative delivery timeline



The above timeline reflects resourcing constraints, rule commencement dates and key dates for the 2026-27 Capacity Year. Actual release dates will depend on actual delivery.

7.2 Market readiness approach

Our approach to supporting market readiness for the single release planned for the back end of March 2026 will be as follows.

- AEMO will engage with stakeholders on the necessary amendments to affected WEM Procedures through the AEMO Procedure Change Working Group (see Section 5).
- AEMO will provide a pre-release briefing to the WA Reform Implementation Group (WRIG). We estimate the timing for this will be between one and three weeks prior to the Pre-Production release.
- AEMO will publish release notes and issue a Market Message shortly before the Pre-Production release.
- AEMO will issue a Market Advisory shortly before the release to Production.

7.3 Indicative implementation cost – AEMO

The preliminary assessment of the cost to implement this change is $3.4 million (including capex and opex) plus a contingency allowance of $0.3 million, over the life of the project. Of this, AEMO spent around $0.5 million in FY25 and expects to spend $2.9 million in FY26.

As the project progresses, we will report the approved budget (including contingency) and subsequent forecasts for the project established to implement the changes described in this IA, as part of our reporting on the WEM Implementation Roadmap. As implementation of the changes detailed in this IA has already commenced, we refer the reader to the following project included on the Roadmap: *P3427: Relevant Level Method*.

7.4 Implementation risks

Table 6 outlines risks arising from the changes associated with delivering the RLM changes. At the time of writing this IA we had not conducted equivalent risk analysis on the other two changes (Peak ESROI and 10-Year Fixed Pricing), however, we expect they are significantly less complex and therefore lower risk than the RLM changes.

Table 6 Initial assessment of implementation risks

Identified risk	Current rating	Mitigation strategies	Residual rating
The inherent variability in the methodology may lead to variations in results. This could necessitate methodological or rule changes, potentially impact project schedule and budget.	Medium	- Implement a feedback loop to continuously refine the methodology incorporating expert validation. - Engage with key stakeholders early to align on acceptable levels of variability and secure agreement on how rule changes will be handled.	Low
The new RLM WEM Procedure is still in draft form which may impact the ability to fully elaborate and finalise project requirements. The rules will be finalized only in October 2025. This could lead to requirement gaps, rework or delays in project execution.	Medium	- Continue defining requirements based on the available draft procedure, while maintaining flexibility for refinements as the procedure evolves. - Establish scheduled reviews with ERA and Energy Policy WA to track progress, validate interim assumptions and adjust project scope if necessary.	Low
The complexity of the proposed design may lead to unforeseen challenges during execution, potentially requiring additional time, resources, budget or design modifications to address implementation issues.	Medium	4 weeks schedule and budget contingency are allocated for risk mitigation.	Low
The complexity of proposed delivery model, involving four implementation teams and two vendors may lead to coordination challenges, misalignment on deliverables, dependencies or integration issues, potentially impacting timelines and execution efficiency.	Medium	- Establish regular alignment meetings, joint status reviews, and issue resolution forums to ensure teams stay coordinated. - Develop a joint implementation roadmap, tracking cross-team dependencies and proactively addressing bottlenecks.	Low

A1. Additional technical information

A1.1 Peak ESROI example

Each ESR component of a Scheduled Facility (SF) or Semi-Scheduled Facility (SSF) will have an ESROI set based on the Mid Peak ESROI and the ESR Duration Requirement that was set in the first year in which the ESR was assigned Capacity Credits for a 10-year period.

For example, if the ESR Duration Requirement is set at 6 hours (12 Trading Intervals) in the 2025 WEM ESOO for the 2027-28 Capacity Year, then all ESR components of the SF/SSF that are first assigned Capacity Credits in the 2027-28 Capacity Year will have an ESR Duration Requirement of 12 Trading Intervals until the 2036-37 Capacity Year (inclusive).

The ESROI will vary for each ESR component of a SF/SSF based on the Mid Peak ESROI and ESR Duration Requirement at the time of certification. For example:

- If the Mid Peak ESROI for the 2027-28 Capacity Year is 18:00:
  - for ESR that are assigned Capacity Credits for the first time in the 2027-28 Capacity Year (6 hours), the ESROI will be 15:30 to 21:00 (inclusive).
  - then for ESR that are assigned Capacity Credits prior to the 2025 Capacity Cycle (4 hours), the ESROI will be 16:30 to 20:00 (inclusive).

The Mid Peak ESROI, once set in the WEM ESOO, can be changed in subsequent WEM ESOOs, and can also be changed prior to one day ahead of a Trading Day.

A1.2 Changes to RCM application functionality

- Update the Relevant Level user interface to allow AEMO to upload manually prepared data required for the automated calculations.
  - Market Participants can upload independent expert report data to their CRC applications for Candidates that have not been in operation for the full RLM Reference Period.
- Determine and publish the Reference Demand Profile, including interim inputs.
  - AEMO can upload the SRC Reduction and NCESS Reduction data to be used in the Observed Demand calculation.
  - RCM Operations can calculate Observed Demand using input data from manual file uploads, PaSS, WEMDE, WEMDE UI, and WEMS Facility Service.

  - The DER Adjusted Demand Profile can be uploaded when the Reference Demand Profile calculation type is selected.
  - RCM Operations can calculate the Reference Demand Profile for the ELCC Reference Period by scaling the DER Adjusted Demand Profile.
- Determine the Historical Output for each Candidate, which represents the quantity of energy produced (or estimated to have been able to have been produced) by each Candidate over the RLM Reference Period.
  - AEMO can upload the Candidate deviations data to use when calculating Historical Output.
  - RCM Operations can determine which Candidates to include in the Historical Output calculation.
  - RCM Operations can calculate the Historical Output for Committed Candidates that are in Commercial Operation status.
  - RCM Operations can calculate the Facility Average Performance Level for Committed Candidates in Commercial Operation.
- Determine the Default Capacity Obligation Quantity for each Non-Candidate for each Trading Interval in the RLM Reference Period
  - RCM Operations can determine the Non-Candidates when preparing the Default Capacity Obligation Quantities.
  - RCM Operations can identify and store the Forced Outage rates and Assigned CRC for Non-Candidates.
  - RCM Operations can determine the Default Capacity Obligation Quantity for all Non-Candidates.
- Initiate the RLM Solver in Databricks, and process the data returned when the RLM Solver completes its tasks, including calculating and storing final Relevant Level values for Candidates.
  - AEMO can upload the Candidate deviations data to use when calculating Historical Output as part of the Relevant Level calculation.
  - RCM Operations can determine which Candidates to include in the Historical Output and FAPL calculations that are triggered when a user initiates the Relevant Level calculation.
  - RCM Operations can calculate the Historical Output for remaining Candidates
  - RCM Operations can calculate the Facility Average Performance Level for remaining Candidates
  - RCM Operations sends all required input data to Databricks and initiates the RLM Solver.
  - RCM Operations receives the Initial Demand Adjustments and Final Demand Adjustments from the RLM Solver and calculates the ELCC and Relevant Level.

A2. Glossary

This document uses many terms that have meanings defined in the Electricity System and Market Rules (ESM Rules). The ESM Rules meanings are adopted unless otherwise specified.

Table 7 Glossary of terms and acronyms used in this IA

Term	Definition
10-YFP	10 Year Fixed Pricing for Renewable Fuelled and Long Duration Facilities: a mechanism designed to enhance investment certainty for new and existing facilities – particularly those using renewable energy or long-duration storage. It is included in the Wholesale Electricity Market Amendment (RCM Reviews Sequencing) Rules 2025 (see https://www.wa.gov.au/government/document-collections/wholesale-electricity-market-amendment-rcm-reviews-sequencing-rules-2025).
AEMO	Australian Energy Market Operator: The entity responsible for operating the Wholesale Electricity Market and managing power system security in the SWIS. (ESM Rules, Clause 2.1A)
API	Application Programming Interface: A set of rules and protocols for building and interacting with software applications.
Committed Candidate	A committed Candidate is a Candidate which is the subject of an application for Peak Certified Reserve Capacity for the Current Reserve Capacity Cycle and has been allocated Peak Capacity Credits in a previous Reserve Capacity Cycle.
CRC	Certified Reserve Capacity: The amount of capacity assigned to a facility under the Reserve Capacity Mechanism, indicating its contribution to system reliability. (ESM Rules, Clause 4.11)
DER	Distributed Energy Resources: Small-scale units of generation or storage that are connected to the distribution network, including solar panels, batteries, and electric vehicles. (ESM Rules, Clause 3.24)
EDP	Enterprise Data Platform: A centralised system for managing, storing and retrieving AEMO's data.
ELCC	Effective Load Carrying Capacity: A measure of the contribution of a facility to meeting peak demand, used in determining Certified Reserve Capacity. (ESM Rules, Clause 4.11.2)
Energy Policy WA	Energy Policy WA: The division of the Department of Energy and Economic Diversification responsible for energy policy and regulatory reform. The ESM Rules confers functions on the Coordinator of Energy and this position leads Energy Policy WA. (ESM Rules, Clause 2.2D)
ESM Rules	Electricity System and Market Rules. The WEM and the SWIS are governed by the Electricity System and Market Rules. See https://www.wa.gov.au/government/document-collections/electricity-system-and-market-rules
ESR	Electric Storage Resource: A facility that stores electrical energy for later use, including batteries and other technologies capable of discharging electricity. (ESM Rules, Clause 4.11.3)
ESR Duration Requirement	The number of contiguous Trading Intervals in each Trading Day in the applicable Capacity Year to be designated as Peak ESROIs for ESR first allocated Peak Capacity Credits in the Reserve Capacity Cycle.
ESROI	Electric Storage Resource Obligation Interval: A Trading Interval during which an Electric Storage Resource (ESR) must make its certified capacity available to the market. (ESM Rules, Clause 6.3A)
Facility	Any facility registered under the WEM Rules.
Facility Classes	Any one of the classes of Facility specified in clause 2.29.1A.
IA	Implementation Assessment: a summary of AEMO's proposed or settled approach to implementing an initiative, to explain the changes or the benefit of external stakeholders.
IGS	Intermittent Generating System: Any generating system whose output is not reasonably controllable by AEMO, and whose output is dependent on a fuel resource that cannot be directly stored or stockpiled and whose availability is difficult to predict. (ESM Rules, Chapter 11)
Mid Peak ESROI	The reference Trading Interval for all ESR used to determine the Peak ESROD. The Mid Peak ESROI is determined based on the Mid Peak and Flexible ESROI WEM Procedure. Mid Peak ESROI is the middle of the Peak ESROD if it has an odd number of Trading Intervals, otherwise the last Trading Interval of the first half of the Peak ESROD. (ESM Rules, clause 4.11.3A)
MP	Market Participant: An entity registered to participate in the Wholesale Electricity Market, including generators, retailers, and network operators. (ESM Rules, Clause 2.28)
MPI	Market Participant Interface: The primary user interface/portal through which market participant users interact with WEM systems. Also referred to as the Wholesale Electricity Market Systems Market Participant Interface (WEMS MPI)

Term	Definition
MPWG	Major Projects Working Group: A consultative forum for engagement with industry stakeholders regarding the work program of AEMO's WA Reform Program - the delivery vehicle for AEMO's WA-focussed projects.
MSDC	Market Surveillance Data Catalogue: A catalogue of data used for monitoring and analysing market performance and compliance. (ESM Rules, Clause 10.6)
MW	Megawatt: A unit of power equal to one million watts.
NIGS	Non-Intermittent Generating System: A generating system that can reliably control its output and is not subject to uncontrollable variability. (ESM Rules, Clause 2.30B)
NSF	Non-Scheduled Facility: A facility that is not subject to central dispatch and operates independently within the market. (ESM Rules, Clause 2.29)
PaSS	Prudential and Settlement Service:
PDS	AEMO's online portal for publishing market and system data to stakeholders. Also called the Market Data Site. See https://data.wa.aemo.com.au/
Peak ESROD	Peak Electric Storage Resource Obligation Duration: The duration during which electric storage resources must meet their peak capacity obligations. (ESM Rules, Clause 6.3)
Peak ESROI	Peak Electric Storage Resource Obligation Interval: The specific interval during which peak obligations for electric storage resources apply. (ESM Rules, Clause 6.3)
Proposed Candidate	A Candidate which is the subject of an application for Peak Certified Reserve Capacity for the Current Reserve Capacity Cycle and has not been allocated Peak Capacity Credits in a previous Reserve Capacity Cycle.
RC	Reserve Capacity: The capacity required to meet forecast peak demand and maintain system reliability. (ESM Rules, Clause 4.6)
RCM	Reserve Capacity Mechanism: The process by which capacity is certified, secured, and allocated to ensure system adequacy. (ESM Rules, Clause 4.1)
Relevant Level	Means the MW quantity determined by AEMO in accordance with the Relevant Level Method. (ESM Rules, Chapter 11)
RLM	Relevant Level Method: A method used to determine the capacity contribution of intermittent generating systems. (ESM Rules, Appendix 9)
SCADA	Supervisory Control and Data Acquisition: A system used for monitoring and controlling power system operations in real time. (ESM Rules, Clause 2.36A)
SCC	Separately Certified Component: A component of a facility that is certified independently for Reserve Capacity purposes. (ESM Rules, Clause 4.11.4)
SF	Scheduled Facility: A facility that is subject to central dispatch and must follow dispatch instructions from AEMO. (ESM Rules, Clause 2.29)
SSF	Semi-Scheduled Facility: A facility that can partly control its output and reduce generation when directed by AEMO. These typically include wind or solar plants and hybrids with storage. They must follow dispatch limits but not full dispatch targets. (ESM Rules, Clause 2.29)
SWIS	South-West Interconnected System: The interconnected electricity network in the south-west of Western Australia. (ESM Rules, Clause 1.1.2)
WEM	Wholesale Electricity Market: The market for the wholesale sale and purchase of electricity in the SWIS. (ESM Rules, Clause 1.1.2)
WEM ESOO	The WEM Electricity Statement of Opportunities is an annual publication that provides forecasts for the WEM over the 10-year outlook period. See https://www.aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/wem-forecasting-and-planning/wem-electricity-statement-of-opportunities-wem-esoo
WEMDE	WEM Dispatch Engine: Core software system for dispatching generation and manage essential system services in the WEM.
WEMDE UI	WEM Dispatch Engine User Interface: The user interface for the WEMDE.
WIC	WEM Investment Certainty: A policy review carried out by Energy Policy WA that identified mechanisms to enhance investment certainty for new and existing facilities.

A3. Impact rating guidance

AEMO's approach for rating impacts from No Impact, Low, Medium or High applies a predefined matrix of impact types, summarised in the table below.

Table 8 Impact assessment guidance

Dimension considered	Question	High	Medium	Low	None
Impact on documentation	What is the change to a given internal process, WEM Procedure or technical document that AEMO must maintain and/or publish?	Major changes to documentation. E.g. creating a significant new document (or extensively rewriting existing). E.g. document drafting and review extensively involves multiple AEMO teams.	Moderate changes to an existing document. E.g. addition, elimination or reorder of multiple process steps. E.g. document drafting and review involves multiple AEMO teams to some extent.	Minimal change to an existing document. E.g. addition, elimination or reorder of small number of process steps. E.g. document drafting and review is primarily carried out within a single AEMO team.	No changes to documentation
Systems impact – market applications (internal only)	How extensively will the change affect the underlying market applications?	Involves a major change to, or addition of, a market application. E.g. introduction of a new application or decommissioning of existing system	Moderate change to existing market applications. E.g. introducing many new features or significantly increasing non-functional requirements	Minor change to existing market applications. E.g. adding one or several minor new features. E.g. expanding system functionality with only minor adjustments to the application's data and processing frameworks.	No change market applications
Systems impact – user interfaces (internal and external)	How is the change affecting user interfaces? How easily will the change be integrated by users?	Major changes to user interface(s) e.g. introduction of significant new or decommissioning of existing UI tabs. E.g. many users may not understand the UI without training.	Moderate change to existing interfaces. E.g. significantly expanded range of controls within an existing UI tab. E.g. many users will understand the UI relatively quickly on their own, but without training, some many not.	Minor change to existing interfaces. E.g. small addition of controls within an existing UI tab. E.g. almost all users will understand the UI quickly on their own, even in the absence of training.	No change to user interfaces
Systems impact – system to system interfaces (internal-internal and internal-external)	How is the change affecting the interactions between systems? How easily will changes be accommodated by systems up or downstream?	Major systems interface change. E.g. entirely new machine interface, with unfamiliar data schema or transfer formats must be negotiated or understood. E.g. upstream or downstream limitations significantly constrain or complicate the implementation of the core application changes.	Moderate systems interface change. E.g. the change involves significantly expanding the number of parameters or data-streams to be exchanged, but closely follows established patterns, formats and schemas. E.g. upstream or downstream systems require many changes, but these closely follow established patterns, logic or structures.	Minor system interface change. E.g. the change involves adding a small number of parameters or data-streams, adhering to established patterns, formats and schemas. E.g. upstream or downstream systems require several minor changes.	No system to system interface impacts

A4. MPWG Feedback

The feedback provided by MPWG members in response to the Draft IA is compiled in the table below, along with AEMO's response to each issue raised.

Table 9 Feedback received on Draft IA and AEMO's responses

Ref	Short description	Details	Raised by (Organisation)	AEMO Response
1	A shared tool to support business case analysis (RLM IA)	Many participants / companies need to evaluate potential revenues for new projects, taking account of the new RLM methodology. It would be efficient if AEMO built a tool to support this that everyone could access and use.	Bluewaters Power & Newgen Kwinana	We understand the value a tool of this kind could bring to participants evaluating potential revenues under the new RLM. However, following review we do not believe it is practical, or would be cost effective to the market, for AEMO to do this for the following reasons: • The RLM model that AEMO must build is not a readily separable module or tool that can be exported for wider use like a spreadsheet. Instead, it is tightly integrated with other systems – particularly with those systems that supply the real market data on which the calculations are performed. The majority of AEMO's costs are in building this data input integration. • If the tool was separated and shared, it would not be a useful tool for the purpose required. AEMO is not building the RLM model as a scenario investigation tool and nor does AEMO model, produce or predict the datasets that will be needed as inputs to form predictions of Certified Reserve Capacity assignment across the long-term horizon (e.g. when and where other facilities emerge, changing SWIS energy consumption dynamics, etc). • The ESM Rules, amended WEM Procedures (including the Relevant Level Method WEM Procedure) and other published documentation and data should allow prospective investors or specialist advisory firms to establish functionally equivalent RLM models.
2	Early preview of the outcomes from new RLM	Can the market be given an early preview of the results that the new RLM may produce?	Alinta Energy	While we understand the interest in previewing potential RLM outcomes, the methodology is still being refined, and outcomes will depend on final inputs and assumptions. Providing early indicative results at this stage may be misleading and risks creating confusion for Market Participants. We anticipate a lag of only several weeks between when the inputs and assumptions are finalised (with the publication of the ESOO) and the publication of the RLM outcomes. For those seeking insights into how the RLM may operate, we recommend reviewing EPWA's considerations from the RCM Review, which include examples of RLM outcomes from previous years. These may offer useful context while the current framework is being finalised. Finally, AEMO's WA Capacity Investment and Assessment team will continue to support current and prospective capacity providers to develop the necessary understanding of requirements, methods and processes – by running information forums, publishing information and addressing questions in both forums and one-on-one conversations.
3	Reproducibility of calculation of revenues following changes	Simplicity is key in market design to ensure efficient outcomes for investment. It is not feasible for a smaller developer (less than 100 people in Australia) to spend $3.6m and to gather 150 million data points to be able to complete our assessment on our RLM revenues for our emerging wind farms.	Neoen Australia	See response to Item 1.

Ref	Short description	Details	Raised by (Organisation)	AEMO Response
		Therefore, it is very important that this model is open source so we (or our consultants) can access the model and work through different scenarios to calculate the risk of our projects. Failure to release this modelling will mean that we will have to be conservative in our revenue projections increasing the overall cost of the transition.		
4	ESR Scope	Why will ESR be impacted by the RLM changes?	Synergy	ESR will not be impacted by the core RLM methodology. However, changes to Peak ESROI, which are considered incidental and unrelated to the RLM design itself, are being progressed within the scope of the RLM project. These changes may affect ESR outcomes, but they are not driven by the RLM framework. We'll continue to provide updates on Peak ESROI developments to ensure participants understand any implications for ESR.