



Economic Regulation Authority

Australian Energy Market Operator's AR6 second in-period allowable revenue and forecast capital expenditure proposal

Draft determination

15 May 2024

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Invitation to make submissions

Submissions are due by 4:00 pm WST, Wednesday, 29 May 2024.

The ERA invites comment on this paper and encourages all interested parties to provide comment on the matters discussed in this paper and any other issues or concerns not already raised in this paper.

We would prefer to receive your comments via our online submission form <https://www.erawa.com.au/consultation>.

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Please note that submissions provided electronically do not need to be provided separately in hard copy.

All submissions will be made available on our website unless arrangements are made in advance between the author and the ERA. This is because it is preferable that all submissions be publicly available to facilitate an informed and transparent consultative process. Parties wishing to submit confidential information are requested to contact us at info@erawa.com.au.

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Executive summary

The Australian Energy Market Operator (AEMO) is seeking approval for additional funding to cover increasing costs in operating the Western Australian Wholesale Electricity Market (WEM).

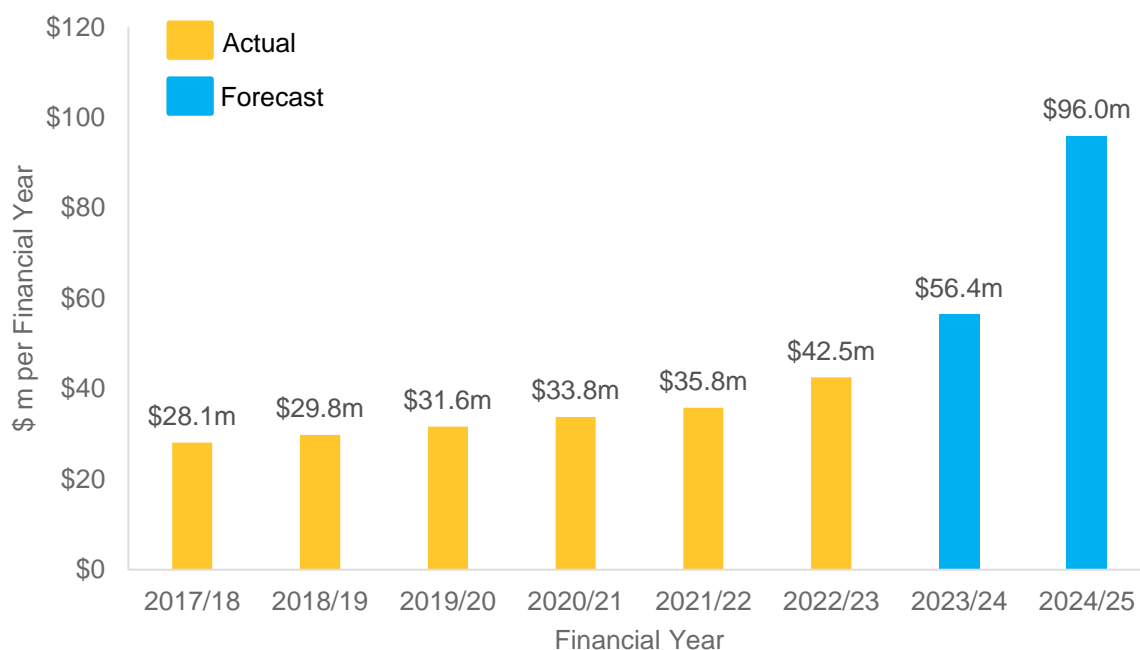
AEMO's proposal for additional funding has been made during the sixth allowable revenue and forecast capital expenditure period, known as AR6. The WEM Rules require AEMO to submit a three-year funding proposal to the ERA at the start of each allowable revenue period. During the three-year funding period, AEMO must seek adjustments to its funding if there are additional costs that exceed a threshold.¹

This is AEMO's second in-period funding submission during AR6, seeking a \$59.2 million increase in allowable revenue and a \$39.0 million increase in forecast capital expenditure. The ERA previously approved \$142.3 million of allowable revenue and \$108.3 million of forecast capital expenditure through the initial AR6 determination in May 2022 and the first AR6 in-period submission in September 2023.

Increasing costs to operate the WEM

AEMO's proposal estimates that the impact of its required level of funding on market fees would be an increase of \$1.04 per megawatt-hour (MWh) in 2024/25.² This increase in market fees would result in the cost to operate the WEM increasing from \$56.4 million in 2023/24 to \$96.0 million in 2024/25 (Figure 1).

Figure 1: AEMO WEM Operating Costs



¹ The threshold is the lesser of \$10 million of 10 per cent of forecast capital expenditure – Wholesale Electricity Market Rules (WA), 1 April 2024, Rule 2.22A.13, ([online](#)).

² Approximately \$0.30/MWh of this increase, or around \$11.4 million of the WEM operating cost, reflects depreciation and borrowing costs associated with AEMO's first in-period submission - Australian Energy Market Operator, 2023, *Adjustment to 2022-2025 Forecast Capital Expenditure*, p. 28, ([online](#)). These costs could not be reflected in AEMO's market fees for 2023/24 as the funding was approved after AEMO released its budget and fees publication.

Source: AEMO WA Budget and Fees documents, AEMO's AR6 proposals. See Appendix 3 for details.

The forecast annual operating cost of \$96.0 million to operate the WEM in 2024/25 is now more than double AEMO's costs for 2022/23, which was the first year of the AR6 funding period. While market fees represent a small proportion of the total cost of electricity in the WEM (around 1 per cent), increases in market fees can potentially have material impacts on market participants operating on small margins and on customers and consumers in downstream markets.

Draft determination

The ERA must assess AEMO's request for allowable revenue and forecast capital expenditure to ensure that it only includes costs that would be incurred by a prudent provider, acting efficiently, to achieve the lowest practicably sustainable cost of performing AEMO's functions.³

In October 2022, the ERA introduced guidelines to assist AEMO's funding proposals so that sufficient supporting evidence and justification is provided for the ERA to assess.⁴ AEMO has acknowledged that their submission is not in full compliance with the guideline.⁵ In the absence of detailed supporting information, the ERA must use other supporting information to make its assessment to approve, reject or substitute the amounts AEMO has proposed.⁶ The ERA must also consider the WEM objectives when assessing funding for operating expenses and capital projects.

In its review, the ERA must assess whether a project and its related costs need to be incurred (prudence) and whether those related costs represent a low-cost option (efficiency). While Energy Policy WA (EPWA) sets the policy direction for WEM reform and considers the prudence of reform projects, AEMO is responsible for providing sufficient evidence to demonstrate that its intended approach is the most efficient way to implement reform priorities, including consideration of the timing and priority of implementation.

In some instances, funding is being sought for expenditure that has already been made. The ERA estimates that \$15 million to \$18 million of the requested additional funding for labour costs has already been incurred by AEMO.⁷ The ERA must apply the same assessment methodology to these costs as proposed funding that is yet to be incurred, and has rejected some of this funding where it lacks sufficient supporting justification.

The ERA's draft determination is to approve \$27.7 million in allowable revenue and \$21.0 million in forecast capital expenditure (Table 1).

³ Wholesale Electricity Market Rules (WA), 1 April 2024, Rule 2.22A.5(b), ([online](#)).

⁴ Economic Regulation Authority, 2022, *Guideline to inform the Australian Energy Market Operator's funding proposal (Version 3)*, ([online](#)).

⁵ AEMO's funding proposal submission was accompanied with a letter addressed to the ERA's Chair which stated that the fast pace of reform and the short timeline in the WEM Rules for making the current submission proposal were factors limiting AEMO's ability to comply fully with the funding proposal guidelines.

⁶ Wholesale Electricity Market Rules (WA), 1 April 2024, Rule 2.22A.6, ([online](#)).

⁷ Based on the ERA's analysis of the Australian Energy Market Operator, October 2023, *2023 WA Financial Statements*, ([online](#)) and other confidential supporting information provided by AEMO with the current in-period submission.

Table 1: ERA's draft determination on AEMO's AR6 second in-period funding proposal (\$ million)

Expenditure category	AEMO Proposal	Draft determination	Variance (%)
Allowable revenue	59.2	27.7	(53.2)
Forecast capital expenditure	39.0	21.0	(46.3)
Total	98.2	48.7	(50.4)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

The ERA has rejected elements of AEMO's funding proposal where costs:

- Have not been sufficiently justified:
 - AEMO has included a significant increase in operational labour costs. It has indicated that these costs reflect the new market requiring more resources to operate effectively. However, AEMO has not provided the ERA with evidence, such as an internal review process, to assess whether current resources are being used efficiently and effectively. The ERA has raised similar issues in previous determinations.⁸
 - Sufficient justification for costs could be demonstrated with cost-benefit analyses, documents explaining how different options or approaches for delivering a project have been considered, and/or analysis showing the skills and resources needed and how this compares with work on similar projects within or in other jurisdictions.
- Have a high level of uncertainty, particularly for capital expenditure:
 - AEMO's funding proposal states that the timing of the in-period review and planning activities for major projects, like the metering system upgrade, mean that detailed costs and timing cannot be provided.⁹
 - The ERA is mindful that there is only one year (2024/25) remaining in the AR6 period. For capital projects with a high degree of uncertainty around project scope, the ERA cannot approve funds for project phases beyond planning and feasibility because an assessment of prudence and efficiency is not possible without a well-defined project scope.

Consultation

The ERA seeks stakeholder feedback on this draft determination, with particular interest in reasons why the ERA should amend or retain elements of its draft determination. The ERA also seeks feedback on the priority and timing of the projects included in AEMO's proposal.

⁸ Economic Regulation Authority, 2022, *AEMO's allowable revenue and forecast capital expenditure proposal for the period 1 July 2022 to 30 June 2025 – Final determination*, p. 50, ([online](#)).

⁹ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, p. 41, ([online](#)).

1. Introduction

AEMO provides services to the Western Australian wholesale gas market and the WEM. AEMO is a not-for-profit entity and recovers its costs through fees charged to market participants which are passed through to consumers. The ERA's role is to assess AEMO's requests for allowable revenue and its forecast capital expenditure, relating to provision of these services in WA for a three-year period. If AEMO requires adjustments to recover its costs during this period, AEMO must apply to the ERA if the adjustment is significant.¹⁰

1.1 In-period review process and timeline

Under the WEM Rules, AEMO may make an application at any time within a revenue period to adjust the forecast capital expenditure and allowable revenue. The ERA received AEMO's second AR6 in-period submission on 18 March 2024, which proposes to increase AEMO's allowable revenue by \$59.2 million (operating expenditure) and increase forecast capital expenditure by \$39.0 million.¹¹ The ERA published AEMO's proposal on 19 March 2024.

Similar provisions for in-period funding exist in the Gas Services Information Rules, which govern the wholesale gas market. However, AEMO's second in-period submission proposal only relates to its WEM funding and functions. Key deadlines for the remainder of the AR6 second in-period submission process, and the start date for the upcoming AR7 process are highlighted in Figure 2 below.

Figure 2: Timeline for second in-period submission and start of AR7 process



Source: ERA and WEM Rules

Collectively, the proposed cost increase of the projects and changes to operational funds exceed the WEM Rules' threshold for AEMO's overspend allowance. Consequently, AEMO has applied to the ERA for an adjustment to its allowable revenue and forecast capital expenditure to allow AEMO to recover a greater amount through market fees.¹²

¹⁰ Wholesale Electricity Market Rules (WA), 1 April 2024, Rule 2.22A.13 ([online](#)) requires AEMO to apply to the ERA to adjust their funding if the funding adjustment exceeds the lower of 10 per cent of forecast capital expenditure or \$10 million.

¹¹ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)).

¹² Wholesale Electricity Market Rules (WA), 1 April 2024, Rule 2.22A.13 ([online](#)) requires AEMO to apply to the ERA to adjust their funding if the funding adjustment exceeds the lower of 10 per cent of forecast capital expenditure or \$10 million.

1.2 ERA's obligations under the WEM rules

The WEM Rules set out what the ERA can consider and the ERA's obligations when making its determination on AEMO's request for additional funding. When determining a reassessment of AEMO's allowable revenue and forecast capital expenditure, the ERA must ensure that:

- The allowable revenue is sufficient to cover the forward-looking costs of AEMO performing its functions, with operating expenditure to be recovered in the year it is spent and capital expenditure through an appropriate depreciation and amortisation schedule.
- The allowable revenue and forecast capital expenditure must include only those costs that would be incurred by a prudent provider of AEMO's services, acting efficiently, to achieve the lowest practicably sustainable cost of performing AEMO's functions while promoting the WEM or gas market objectives.¹³

Where possible, the ERA can benchmark the allowable revenue and forecast capital expenditure against the costs of providing similar functions and/or projects in other jurisdictions. The ERA can consider any other matters it regards as relevant to its determination.¹⁴

When making its determination, the ERA may do any, or all, of the following:

- Approve the costs of any project or of AEMO performing its functions.
- Where the costs do not meet the relevant legal test (see section 1.2.1), reject the costs fully or partially, or substitute those costs with costs that the ERA considers meet the requirements.
- Recommend to AEMO that some of the costs be considered through an in-period application for additional funds or in a subsequent review period.¹⁵

1.2.1 Application of the legal test

For the ERA to approve AEMO's increase in funding, the ERA must be satisfied that the proposed costs would be incurred by a prudent provider, acting efficiently to achieve the lowest practicably sustainable cost of performing those functions, while effectively promoting the WEM objectives.¹⁶ AEMO is required to demonstrate how its proposed expenditure will achieve the lowest practicably sustainable costs of delivering AEMO's functions in the WEM.

To assist AEMO in providing information to demonstrate that its funding request meets the required standard to satisfy the ERA's assessment criteria, the ERA published a proposal guideline that outlines a two-pronged approach to assess the prudence and efficiency of AEMO's costs. AEMO must ensure its proposal is in accordance with the proposal guideline as required by the WEM Rules.^{17,18}

To assist the ERA in its assessment of whether an AEMO project cost needs to be incurred (prudence test), the guideline requires AEMO to provide evidence that a project is necessary,

¹³ Wholesale Electricity Market Rules (WA), 1 April 2024, Rule 2.22A.5(b), ([online](#)).

¹⁴ Ibid, Rule 2.22A.5(c), ([online](#)).

¹⁵ Ibid, Rule 2.22A.6, ([online](#)).

¹⁶ Ibid, Rule 2.22A.5(b), ([online](#)).

¹⁷ Ibid, Rule 2.22A.2. ([online](#)).

¹⁸ Economic Regulation Authority, 2022, *Guideline to inform the Australian Energy Market Operator's funding proposal*, ([online](#)).

that there is a clear connection between the proposed costs and AEMO's functions, and that the scope of the project aligns with, but does not exceed, the functions as described in the WEM Rules.

To assist the ERA in its assessment of the efficiency of AEMO's proposed costs (efficiency test), the funding proposal guideline requires AEMO to provide evidence that demonstrates:

- A consistent model/approach to estimating project costs.
- A competitive procurement process.
- A thorough governance process to challenge project scope, delivery mechanism, and cost estimates.
- How it has compared estimated project costs against the actual costs of similar projects.
- How resources will be optimised across the capital program.
- That proposed costs are consistent with current market costs for comparable labour resources, services and products.
- Any options analysis undertaken to evaluate whether the chosen solution is the lowest practicably sustainable cost approach.

When reviewing AEMO's proposal, the ERA has applied the two-pronged test stated in the proposal guideline. As part of this assessment, the ERA has considered how the proposed costs will effectively promote the WEM objectives and any other matters relevant to its determination.¹⁹

1.3 ERA's approach to assessing AEMO's proposal

The ERA has assessed each item proposed in AEMO's proposal and applied the tests and requirements under the WEM Rules and the proposal guideline. The assessment of the allowable revenue (or operating expenditure) is in section 3.1 and the individual forecast capital expenditure projects is in section 3.2.

1.3.1 Issues with benchmarking

Although the WEM Rules recommend that the ERA benchmark costs, where possible, of projects and functions against other jurisdictions, the applicability of such comparisons is challenging due to the difference between the WEM and other electricity markets. These differences include:

- The size of the WEM.
- The relatively unique design of the WEM.
- The deadlines and priority projects to achieve the State Government's net zero initiatives specific to the WEM. This includes the shutdown of Synergy's coal generators and participation of clean distributed energy resources (DER) in the wholesale market.

For example, comparing the costs of AEMO's operations in the WEM against the National Electricity Market (NEM) is challenging due to AEMO also being the operator in that market and the vastly different market design. Due to the size of the NEM, AEMO can use economies

¹⁹ Relevant excerpts of the WEM Rules relating to the ERA's and AEMO's obligations are provided in Appendix 4, Appendix 5 and Appendix 6.

of scale in the NEM that may not be realised in the WEM. Also, international jurisdictions have unique market designs which limits the usefulness of overseas comparisons.

Given the challenges and limited insights of comparing AEMO's costs against a benchmark, the ERA does not see significant benefit in pursuing this action for this draft determination, particularly given the review timeframe set by the WEM Rules for assessing this in-period submission. In making this draft determination, the ERA has instead focused its resources on assessing whether AEMO's costs are justified, prudent and reflect an efficient option.

2. AEMO's second in-period proposal

This section summarises AEMO's funding proposal for this second in-period proposal for allowable revenue and forecast capital expenditure, in comparison with funding already approved for this AR6 period.

Table 2: Previously approved funding for AR6 period and AEMO proposed adjustment (\$ million)

Expenditure type	ERA approved AR6 (May 2022)	ERA approved AR6 first in-period (September 2023)	AEMO second in-period proposal	AEMO proposed new AR6 total
Allowable revenue	142.3	-	59.2	201.5
Forecast capital expenditure	61.5	46.9	39.0	147.4

Source: Prior ERA AR6 determinations and AEMO proposal.^{20, 21, 22}

Table 2 shows that this second in-period submission proposal represents a significant increase to allowable revenue and forecast capital expenditure. Some components of this increase are unavoidable, like increases to interest rates that were not foreseen at the time of the original AR6 determination. However, this second in-period proposal includes a range of other costs driven by system updates and new reform activities. These drivers are discussed in more detail below.

2.1 Ongoing WEM reform

The WEM is in a state of transition as it adapts to changes in the energy generation mix from the increase in rooftop solar and large-scale renewable energy sources. This is the main driver behind most of AEMO's proposed increase in operational expenditure and all additional forecast capital expenditure. These capital expenditure projects include the Distributed Energy Resource aggregator participation project, implementing the recommendations from the Reserve Capacity Mechanism review, and the Demand Side Response review (a full list of projects is detailed in section 3.2).

The energy transition is also driving changes to the WEM Rules, which have implications for how AEMO operates and can affect its functions and responsibilities. Developing and implementing new WEM Rules can take considerable time, creating further challenges for AEMO to assess and adapt in a rapidly evolving energy system.

AEMO's in-period funding proposal is evidence of this challenge, with a range of capital projects relating to energy reform activities and cost forecasts having a high level of uncertainty.

²⁰ Economic Regulation Authority, 2022, *AEMO's allowable revenue and forecast capital expenditure proposal for the period 1 July 2022 to 30 June 2025 – Final determination*, p vii, ([online](#)).

²¹ Economic Regulation Authority, 2023, *AEMO AR6 in-period forecast capital expenditure adjustment – Final determination*, p 23, ([online](#)).

²² Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)).

AEMO's proposal sets out the factors that are driving its increasing operational costs, which include:²³

- Recovery of WEM Reform Program costs –depreciation and amortisation of ERA approved WEM reform projects in the first in-period submission.
- Financial costs – from increasing interest rates and inflation.
- AEMO system upgrades – additional investments in AEMO's cyber security and finance systems.
- New reform and energy transition activities – projects to implement the State Government's energy transformation strategy, operate the new WEM design and managing the energy transition.

AEMO is requesting additional operating expenditure funding under each of these drivers as per (Table 3).

Table 3: Operating expenditure cost increase by driver (\$ million)

AEMO classified cost driver	Increase in operating expenditure
Recovery of WEM Reform Program costs	13.2
Externally driven financial costs	7.6
AEMO capability uplifts	4.9
New reform and energy transition activities	33.5
Total	59.2

Source: Australian Energy Market Operator, 2024, Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission, ([online](#)).

2.2 Projected changes to market fees

Capital projects are recovered over the economic life of the asset. As these costs are depreciated, they fall under the depreciation and amortisation expense item, which affects annual operating expenditure and is recovered through market fees.²⁴ Assets can be depreciated once they come into service. Currently, the existing suite of WEM reform projects are only partially reflected in market fees as most of the projects are not yet complete. This means that there are costs not yet showing up in the allowable revenue but will be added in the future.

AEMO has estimated an increase in market fees of \$1.04 per MWh (a 68 per cent increase) to \$2.57 per MWh for financial year 2024/25 (see Figure 3). The second in-period submission accounts for 51 percentage points of this increase, and the first in-period determination in September 2023 accounts for 17 percentage points.²⁵

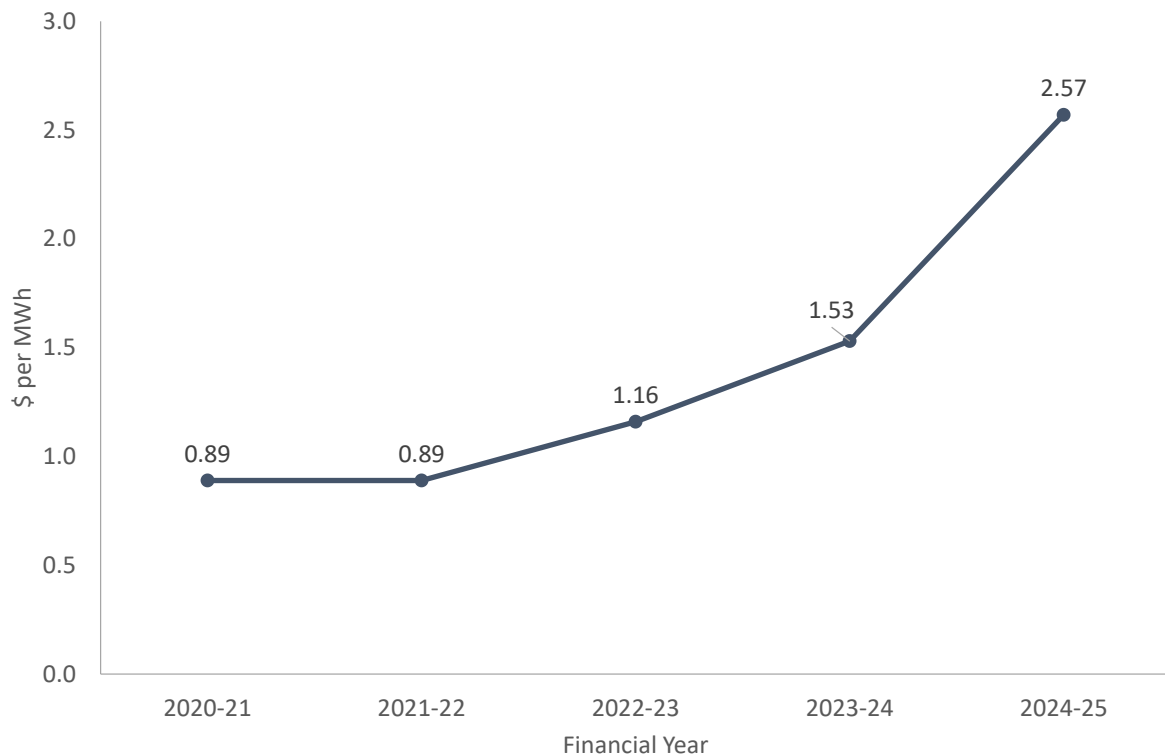
²³ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, p.6 ([online](#)).

²⁴ Wholesale Electricity Market Rules (WA), 1 April 2024, Rule 2.22A.5(a)(ii), ([online](#)).

²⁵ Economic Regulation Authority, 2023, *AEMO AR6 in-period forecast capital expenditure adjustment – Final determination*, pp 7-8, ([online](#))

Figure 3 below shows the increase in market fees, as projected by AEMO's in-period proposal if the ERA were to accept all of AEMO's proposed funding increase.

Figure 3: Projected market fee increase based on AEMO funding proposal



Source: Australian Energy Market Operator, March 2024, Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission, ([online](#)).

Appendix 3 illustrates how the market fees translate into total market operation costs for AEMO.

3. Draft determination

3.1 Allowable revenue (operating expenditure)

The ERA's draft determination is to approve \$27.7 million for allowable revenue as these amounts are justified. This is 47 per cent of AEMO's proposed amount of \$59.2 million. This section outlines the ERA's analysis and its draft determination for each operating expenditure item that AEMO is requesting a funding adjustment.

This section of the report addresses the ERA's draft determination against each operating cost category. A summary of the AEMO proposed adjustment and the ERA's draft determination is included in Table 4 below.

Table 4: AEMO proposed adjustment and ERA draft determination on WEM operating expenditure (\$ million)

Operating cost category	AEMO second in-period proposal	ERA draft determination	Variance (\$)	Variance (%)
Labour costs	33.2	8.0	(25.2)	(75.8)
Accommodation	1.2	1.2	-	-
IT and telecommunications	1.0	1.0	-	-
Supplies and services	6.5	0.2	(6.3)	(96.9)
Depreciation and amortisation	9.8	9.8	-	-
Borrowing	7.2	7.2	-	-
Adjustment for over/under recovery	0.3	0.3	-	-
Total allowable revenue	59.2	27.7	(31.5)	(53.2)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

3.1.1 Labour costs

AEMO requested an additional \$33.2 million in labour costs to fund internal employee and contract labour. This is an increase of 51 per cent on top of the \$64.6 million originally approved for AR6 period. Labour costs include employee and contractor salaries, superannuation, leave provisions, payroll tax and Workcover insurance. AEMO has described the drivers increasing labour costs (Table 5):

Table 5: AEMO proposed funding for labour costs by driver

Driver	AEMO proposal (\$m)	AEMO explanation provided in second in-period proposal
New reform and energy transition	27.0	<ul style="list-style-type: none"> \$9.9 million for organisational restructure of AEMO's WA Department to better support the ongoing energy reform and new WEM functions. \$4.3 million in components of new capital projects that cannot be capitalised, such as feasibility analysis and business readiness activities. \$12.8 million for internal staff transferred from capital project activities to non-capitalised project activities or to WEM operational functions.
External cost pressures	2.7	<ul style="list-style-type: none"> Increase in labour costs due to higher than forecast increase in the Consumer Price Index (CPI) than was expected at the time of the AR6 determination. The tight labour market has also contributed to higher total employment costs due to competition for limited resources.
AEMO capability uplift	3.5	<ul style="list-style-type: none"> \$1.0 million in overtime costs not approved in the AR6 determination which AEMO continues to incur. \$2.5 million for WA's portion of labour costs for delivering improvements to AEMO's enterprise-wide IT, cyber security and finance systems.
Total amount requested	33.2	<ul style="list-style-type: none"> This amount includes the costs of AEMO's permanent employees based in Western Australia and WEM-support employees based in other parts of Australia and contract labour. It does not include consultancy costs, which are categorised under services and supplies in section 3.1.4 of this report.

Source: ERA analysis of AEMO provided information.

The ERA estimates that \$15 to \$18 million of the requested additional funding for labour costs has already been incurred by AEMO.²⁶

The section below outlines the ERA's assessment of AEMO's proposed labour funding adjustment.

3.1.1.1 AEMO WA's new operating model

AEMO's AR6 proposal included a provision for 34 additional Full-time Equivalent (FTE) staff increasing AEMO's Western Australian workforce to 135.2 FTEs by the end of the AR6

²⁶ Based on the ERA's analysis of the Australian Energy Market Operator, October 2023, *2023 WA Financial Statements*, ([online](#)) and other confidential supporting information provided by AEMO with the current in-period submission.

period.^{27,28} The ERA's final AR6 determination approved funding equivalent to approximately 23 new positions. This would increase the total to 124.3 FTEs by the end of AR6 period if all 23 positions were engaged.

AEMO's second in-period proposal shows the FTE count was 124.7 at the start of the AR6 period and is forecast to be 137.3 by the end of the AR6 period, 13 FTEs more than in the ERA's AR6 allowance.

AEMO has explained in this second in-period proposal that its proposed FTE count is largely based on its original AR6 proposal (not the ERA AR6 determination) with two additional FTEs to help manage the ongoing energy reform.

AEMO has not provided enough information to justify the funding of the 13 additional FTEs despite funding not being previously approved. AEMO has not explained how it determined the need for these additional FTEs.

The ERA notes that the requested \$9.9 million mostly relates to additional staff employed by AEMO since the beginning of the AR6 period and, therefore, AEMO has likely incurred over half of this cost already using its debt facilities as we are over half way through the AR6 period.

The ERA has sought further information from AEMO in relation to the rationale behind this additional FTE funding request. Based on the information received to date, the ERA does not approve this funding.

3.1.1.2 *Non-capitalised project labour – New projects*

AEMO is seeking \$4.3 million to fund non-capitalised labour components required to deliver new capital expenditure projects. These costs include project feasibility or business readiness activities.

After reviewing the information that AEMO has supplied, the ERA has not approved \$0.3 million requested to complete feasibility activities for the metering system upgrade and cost allocation review because AEMO has funds provided during AR6 for planning activities relating to five-minute settlement.²⁹

Two of the new projects – Project Eagle, and WEM and SWIS Power System Modelling – cannot be capitalised due to the nature of these projects requiring their costs to be classified as operating expenditure instead.

The ERA has found that all other proposed non-capitalised project labour costs for new projects are justified as feasibility works need to occur for AEMO to ascertain the overall project costs (Table 6).

²⁷ Economic Regulation Authority, 2022, AEMO allowable revenue and forecast capital expenditure proposal for the period 1 July 2022 to 30 June 2025 - Final determination, p. 36 ([online](#)).

²⁸ Using WA department FTE of 101 at the end of 2021-22, Australian Market Energy Operator, 2021, *FTE resource estimate – WA departments and WA support functions*, Table 3, p.7 and Table 4, p.26, ([online](#)).

²⁹ Economic Regulation Authority, 2022, AEMO allowable revenue and forecast capital expenditure proposal for the period 1 July 2022 to 30 June 2025 - Final determination, p. 65 ([online](#)).

Table 6: AEMO's proposed project operating expenditure labour cost and the ERA's draft determination amounts (\$ million)

Project	Proposal	Draft determination	Variance
P3099 DER Aggregator Participation	0.1	0.1	0.0
P3108 Metering System Upgrade and Cost Allocation Review	0.3	0.0	(0.3)
P3082 RCM Review	0.1	0.1	0
P3127 DSR Review	0.1	0.1	0
P3128 WIC Review	0.2	0.2	0
P3112 WEM and SWIS Power System Modelling ³⁰	1.1	1.1	0
P3111 Project Eagle ³¹	2.5	2.5	0
Total operating expenditure project labour cost	4.3	4.0	(0.3)

Source: Australian Energy Market Operator, 2024, Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission, ([online](#)) and ERA analysis.

3.1.1.3 Labour capitalisation

A large proportion of the additional operational labour costs (\$12.8 million) relates to internal resources that were originally allocated to capital projects as part of the WEM reform program.

The originally approved AR6 funding proposal was based on AEMO's plan to deliver its WEM reform program largely using internal resources. Following AEMO's 'back to green' review, instituted to ensure the new WEM market would commence by 1 October 2023, AEMO engaged external consultants to deliver a large proportion of WEM activities instead of using internal employees originally allocated to these projects.

AEMO received additional capital funding of \$45 million to cover these consultancy expenses in its first in-period submission. After engaging the consultants, AEMO reallocated the employees no longer required for the capital projects to either WEM operational activities or to non-capitalised WEM project activities. It is unclear why these activities needed additional resources. AEMO's first in-period submission did not address redeployment of internal labour to operational activities, but stated that:

AEMO's original plan was to make greater use of internal resources and contractors during this period. However, difficulties in securing and retaining internal resources/contractors with the necessary skill sets drove the need for a change in resourcing strategy, requiring greater use of external delivery partners.³²

AEMO's second in-period submission proposal does not specify the activities and the period over which the employees have been redeployed. Additionally, the ERA has not received

³⁰ Excludes contingency of \$0.1 million for this project.

³¹ Excludes contingency of \$0.7 million for this project.

³² Australian Energy Market Operator, 2023, *Adjustment to 2022-2025 Forecast Capital Expenditure*, p. 13, ([online](#)).

information on the necessity of these activities or how they were originally planned to be delivered before the re-allocated internal labour became available. It is not clear from AEMO's proposal and in the ERA's subsequent enquiries to AEMO if operational labour effort required for the delivery of WEM reform and new WEM operations was materially underestimated or how AEMO determined how many additional employees were required above its initial estimate.

The ERA has sought further clarification from AEMO after receiving its second in-period submission but has not received sufficient explanation of the activities these staff are deployed for. The ERA is not approving the \$12.8 million for re-allocated labour costs based on the information received to date.

3.1.1.4 External cost pressures – labour escalation

AEMO has requested \$2.7 million for labour market cost increases above the level forecasted at the time of the AR6 determination. The ERA accepts that increases in the CPI and labour shortages have driven up the cost of labour, however AEMO has not provided adequate evidence to explain how this \$2.7 million amount was derived.

Based on the difference between the AR6 forecast of a 2 per cent increase per year and the updated forecast of 3.5 per cent used in the AEMO's proposal, the ERA estimates that the additional labour costs would amount to around \$1.5 million over the AR6 period.

Based on the information currently available, the ERA's draft determination is to approve \$1.5 million.

3.1.1.5 AEMO capability uplift – labour component

AEMO is requesting \$1 million for overtime costs, predominantly for control room operational staff. The ERA rejected this \$1 million overtime component in the initial AR6 review because other elements of the labour costs appeared to account for overtime payments. At the time, AEMO did not object to this determination but has continued to incur overtime costs. Without receiving further justification from AEMO on incurring the overtime costs the ERA does not see this amount as justified.

AEMO is requesting \$2.5 million in labour cost for improvements to the whole of AEMO cyber security capabilities and the enterprise finance system upgrade. These upgrades are implemented by AEMO's head office and the costs are allocated to the relevant functional areas based on head count. The ERA is satisfied with AEMO's explanation for the need to improve its enterprise capabilities and the proportion of the total costs allocated to Western Australian office and that it is an efficient use of funds.

ERA draft determination on operating expenditure labour costs

AEMO's proposal discussed the increase in effort required to support the rising complexity of the WEM and the ongoing reform. However, it lacked the detail showing how AEMO evaluated the need for additional resources, how it determined the proposed costs, whether AEMO attempted to increase efficiency of existing resources or whether the requested funding represents the lowest sustainable labour costs. The ERA also notes that AEMO has not provided justification for incurring costs which had previously been rejected, such as overtime costs or additional FTEs.

Unless AEMO can provide further evidence to justify these costs, the ERA's current position is to approve \$8.0 million in labour costs, summarised in Table 7.

Table 7: ERA draft determination of AEMO's funding proposal (\$ million)

Labour costs	Proposal	Draft determination	Variance
Expenditure re-allocation	12.8	0.0	(12.8)
Non-capitalised project labour	4.3	4.0	(0.3)
New operating model and ongoing reform	9.9	0.0	(9.9)
External cost pressures	2.7	1.5	(1.2)
Overtime	1.0	0.0	(1.0)
System upgrades	2.5	2.5	0
Total	33.2	8.0	(25.2)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

3.1.2 Accommodation

3.1.2.1 AEMO proposed accommodation costs

AEMO is requesting a \$1.2 million increase for accommodation expenses, due to the upward revaluation of right-of-use lease assets resulting in an associated increase in depreciation cost.³³

ERA findings and draft determination

The ERA is seeking clarification that the additional depreciation expense will be netted off in future accounting periods and the overall lease cost over the full duration of the lease will not increase because of this adjustment.

The ERA approves this additional accommodation costs of \$1.2 million, based on assumptions on the accounting treatment of this lease expense, which are being confirmed with AEMO.

3.1.3 AEMO proposed IT and telecommunications costs

AEMO's proposal is seeking an additional \$1.0 million for IT and telecommunications costs, in addition to the \$9.0 million already approved in AR6. IT and telecommunications costs include desktop support, software support contracts, telecommunications, IT leased assets and cloud costs.

³³ From 1 July 2021 lease costs are recognised as a right of use asset and a liability to make lease payments. The lease operating expenditure consists of the amortisation of the capitalised right of use asset over the period of the lease and an interest component for the lease liability – Australian Accounting Standards Board, 2023, *Compiled Accounting Standard AASB 16 – Leases* ([online](#)).

Draft determination on IT and telecommunications

The additional IT and telecommunications costs are in line with the increase of activities around capability uplift, rate of inflation, and IT activities required to support the energy reform.

The ERA approves the additional \$1.0 million in IT and telecommunications expenditure.

3.1.4 *Supplies and services*

AEMO proposed supplies and services costs

AEMO is requesting \$6.5 million for supplies and services, in addition to \$10.7 million approved in the AR6 determination. This includes \$6.3 million for consulting services associated with the ongoing energy reform and \$0.2 million due to unexpected high inflation, tight labour market conditions and AEMO system upgrades.

Draft determination on supplies and services

While the ERA accepts that the complex nature of energy reform may require AEMO to use external expertise and resources, the ERA has not received information demonstrating how AEMO evaluated the efficiency and cost of engaging consultants or whether options were explored to lower the associated costs.

The ERA approves the additional \$0.2 million to cover the external cost pressures. Unless AEMO can provide further evidence to justify the \$6.3 million for consulting services, the ERA's current position is to reject this funding.

3.1.5 *Depreciation and amortisation*

AEMO's proposed depreciation and amortisation

AEMO's total proposed adjustment to its depreciation and amortisation expense in AR6 is \$9.8 million.³⁴

This relates to the additional \$46.8 million of capital expenditure approved in the first in-period submission for delivery of the WEM reform program. The capital expenditure requested in the current proposal will not be depreciated in the AR6 period.

Draft determination on depreciation and amortisation

The ERA identified an error of \$55,000 in AEMO's depreciation schedule, where planning project activities were included in depreciation and amortisation calculations before the asset has been built. AEMO has acknowledged the error and will adjust the schedule accordingly. Overall, the ERA is satisfied that AEMO has adjusted the depreciation and amortisation costs appropriately to reflect the approved in the first in-period submission capital expenditure.

The ERA approves the \$9.8 million in depreciation and amortisation which, due to rounding, does not change with the \$55,000 adjustment.

³⁴ Australian Accounting Standards require intangible assets with a finite useful life to be amortised systematically over the useful life of the asset - Australian Accounting Standards Board, 2007, *Compiled Accounting Standard AASB 138 – Intangible Assets*, ([online](#)). Amortisation commences when the asset is available for use.

In the AR6 second in-period funding proposal, AEMO has followed Australian Accounting Standards for both capitalising assets and the depreciation/amortisation of these assets.

3.1.6 Borrowing costs

AEMO proposed borrowing costs

AEMO is seeking \$7.2 million in its proposal, which is in addition to the \$7.6 million approved in the original AR6 determination due to increase in forecast interest rates and to fund projects requested in the in-period submissions.

ERA findings and draft determination on borrowing expenses

AEMO's capital expenditure is fully debt funded. Apart from a small portion required for working capital management, the borrowing expenses represent the cost of developing capital assets to operate the WEM systems.

The ERA identified an error in the proposed borrowing schedule. This error resulted in borrowing expenses reduction of \$16,000. This adjustment does not materially affect the total requested for borrowing costs.

Apart from the above adjustment, the ERA is satisfied that that the requested amount is a reasonable forecast of borrowing costs incurred by AEMO in the AR6 period and approves the \$7.2 million proposed (Table 8).

Table 8: AEMO proposed and ERA draft determination on borrowing expenses (\$ million)

AEMO proposal	Draft determination	Variance	Variance (%)
7.2	7.2 (less \$16,000 adjustment)	0.0	0.0

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

3.1.7 Adjustment for over/under recovery

In the original AR6 determination, AEMO forecasted a \$0.3 million over-recovery of WEM market fees at the end of 2022/23 which did not eventuate as AEMO's 2022/23 Financial Report showed a WEM operating deficit of \$3 million.³⁵

Draft determination on over/under recovery

The ERA approves reversal of the forecasted over-recovery amount of \$0.3 million, based on AEMO's WEM operating deficit in 2022/23.

3.2 Forecast capital expenditure

AEMO is seeking \$39 million in additional forecast capital expenditure for 2024/25 to cover five new projects that AEMO states it must start before the end of the AR6 period (i.e. before 1 July 2025). AEMO has stated that its increased capital expenditure requirements are due to the unprecedented pace of energy reform work.

AEMO's proposal states that, for some projects, it is waiting on detailed information that it requires to design and inform the planning process and the associated development of robust costings. Consequently, there is uncertainty around details for several of the projects included

³⁵ Australian Energy Market Operator, 2023, *2023 WA Financial Report*, p.6, Table 2, ([online](#)).

in the funding proposal, making them difficult to reliably cost. This has made it difficult for AEMO to both plan for and provide details to the ERA. The ERA has taken this into consideration but is still bound by the requirements in the WEM Rules for assessing AEMO's funding request.

The ERA must also consider whether the need to implement a project with the recommended funding and associated timelines will assist the WEM's development so that it will help to better meet the WEM objectives.

All five of the capital projects included in AEMO's proposal relate to the State Government's energy transition projects. These projects are:

- Reserve Capacity Mechanism review (section 3.2.1)
- Distributed Energy Resource aggregator participation (section 3.2.2)
- Metering system upgrade and cost allocation review (section 3.2.3)
- Demand-Side Response review (section 3.2.4)
- WEM Investment Certainty review (section 3.2.5).

These projects require changes to AEMO's systems or processes the cost of which, when depreciated, can be claimed by AEMO through WEM market fees.

3.2.1 Reserve Capacity Mechanism (RCM) review

AEMO is seeking funding to implement multiple RCM initiatives, which includes enabling the certification and assignment of new flexible capacity credits, revisions to the relevant level method, and establishing a new method for assigning capacity to demand side providers.^{36,37,38} AEMO has identified that it expects to complete planning by June 2024 and begin implementation over 2024/25.

The ERA agrees with the importance of these RCM initiatives and is itself working on projects to facilitate the implementation of RCM changes.³⁹

The ERA is aware that, due to the forward-looking nature of the RCM, changes made today to the mechanism will only take effect in two years' time. This makes the timeliness of RCM projects critical given the lag in implementation time meaning that changes required by AEMO to the RCM need to be done in a timely fashion or else risk incurring delays that will affect the effectiveness of the RCM's pricing signals. AEMO has demonstrated the importance of this project and the reforms.

Given the importance of these initiatives, the ERA approves funding for implementation activities. The ERA approves \$14 million for implementation (Table 9). However, AEMO needs

³⁶ For a full list of changes under this initiative, see Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)), p 49.

³⁷ Flexible capacity credits are a new form of capacity credits that will be introduced from the 2025 Reserve Capacity Cycle, that is in addition to the peak Capacity Credits which is what is currently assigned. Flexible capacity credits are there to incentivise investment in those capacity providers that can react quickly to sudden changes in load demand. Energy Policy WA, 2023, *Coordinator of Energy Determination: Benchmark Capacity Providers, Peak Capacity Provider and Flexible Capacity Provider*, ([online](#)).

³⁸ The relevant level method is the method for allocating capacity credits to semi-scheduled facilities (i.e. intermittent generators).

³⁹ For example, the review of the Benchmark Reserve Capacity Price market procedure.

to provide further evidence to meet the standard required in the guidelines regarding contingency. Consequently, the ERA does not approve the \$2.8 million in contingency funds.

Table 9: RCM review project's funding variance (\$ million)

Item	AEMO Proposal	Draft determination	Variance (%)
Planning	-	-	-
Implementation	14.0	14.0	0
Contingency	2.8	-	(100)
Total	16.8	14	(16.7)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

3.2.2 Distributed Energy Resource (DER) aggregator participation

AEMO is setting up systems and arrangements to enable DER aggregators to participate directly in the WEM as part of the Government's DER Roadmap. Part of this is setting up AEMO as the Distribution Market Operator, with this work in the project's planning stages.

The ERA approves funding the planning and execution of Stage 1 as this is essential to enable DER aggregators to participate in the WEM (Table 10). This part of the project focuses on planning and developing the requirements for DER aggregation, data integration with AEMO's systems, and enabling DER aggregators to participate in the RCM. This is necessary work and funding is provided to ensure that adequate planning and scoping is undertaken so that this project can be successfully implemented.

The ERA rejects the Stage 2 funding of \$0.8 million, as AEMO has stated that regulatory and technical requirements for this portion of work are not clear and are dependent on further developments over 2024. Given this level of uncertainty, AEMO needs to provide further evidence to justify that approving funding for Stage 2 would be prudent and efficient.

Table 10: DER aggregator participation project's funding variance (\$ million)

Item	AEMO Proposal	Draft determination	Variance (%)
Stage 1 Planning	0.5	0.5	0
Stage 1 Execution and Stage 2 Planning	6.1	5.3	(13)
Contingency	0	0	0
Total	6.6	5.8	(12)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

As more certainty around Stage 2 of this project is formed, it will be easier for AEMO to submit a justifiable case for expenditure, as it will have a firm picture of what system changes are needed to support continuation of this project.

3.2.3 Metering system upgrade and cost allocation review

AEMO proposed funding for the feasibility and execution of significant upgrades to its metering system to enable the receipt, storage, and communication of increased quantities of metering data. This requirement is driven by the need to address a significant increase in the number of meters its systems must accommodate, and the volume of data resulting from the shift from 30-minute trading to five-minute dispatch intervals.

AEMO has indicated that the metering system upgrade project will enable several other reform activities, including five-minute settlement and verifying flexible capacity credit obligations for the RCM. AEMO expects labour costs to be high for this project given its complexity. In its funding proposal, AEMO submits that because this project is in the planning stage, it cannot provide detailed information on the costs and timing for the execution of system changes.

The cost allocation review will examine the allocation of market fees and essential system services in the WEM to identify requirements to move towards a causer-pays approach.

The total funding proposal for these projects is for \$15 million to cover the estimated costs of implementing new metering system upgrades and the outcomes of the cost allocation review. The ERA sought clarification regarding the breakdown of the funding across planning and execution stages. AEMO confirmed that \$0.9 million is for planning activities (including contingency), due to be completed in September 2024. The remaining \$14.1 million is for execution activities, including contingency costs.

The ERA notes the importance of upgrades to AEMO's metering system and supports AEMO undertaking planning activities to determine with more certainty the cost, timing, solutions and associated resourcing needs to deliver this project. Given the high level of uncertainty around AEMO's requirements, the ERA approves only \$0.8 million for planning costs (Table 11). AEMO can provide further evidence to justify execution costs, however the ERA's current position is to reject the remaining \$14.2 million.

Table 11: Metering system upgrade and cost allocation review funding variance (\$ million)

Item	AEMO Proposal	Draft determination	Variance (%)
Execution	13.1	0.8	(94)
Contingency	1.9	0.0	(100)
Total	15.0	0.8	(95)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

3.2.4 Demand-Side Response (DSR) review

AEMO is seeking funding for the planning and feasibility of the DSR review project, as AEMO:

Do not have sufficient insight into the detail of the rule change required to support secondary metering for facilities, and therefore, how settlement and other market processes ... will be impacted.⁴⁰

⁴⁰ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, p 52, ([online](#))

The ERA has approved the feasibility funding in the allowable revenue section (see section 3.1.1.2). AEMO can provide further evidence to justify the need to commence planning activities given the current level of uncertainty of this project. However, based on current information, ERA rejects further funding until feasibility activities are completed (Table 12). The feasibility work will provide more certainty that will assist to justify the project's overall costs.

Table 12: DSR review project cost variance (\$ million)

Item	Proposal	Draft determination	Variance (%)
Planning	0.17	0	(100)
Contingency	0.02	0	(100)
Total	0.19	0	(100)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

3.2.5 WEM Investment Certainty (WIC) review

The WIC review is to implement the recommendations from the WIC Working Group, which focuses on providing sharper price signals for investment in capacity, particularly for renewables and long-duration energy storage. AEMO's proposal identified that finalised WEM Rule changes are not yet known, however the rule changes from the WIC Review are expected to be announced in late 2024, which is prior to the end of the AR6 period. AEMO is seeking funding now in order to be able to perform its planning activities around how to implement these rule changes prior to the end of the AR6 period.

The ERA approves funding feasibility activities for this project, which is provided in operational expenditure funding (see section 3.1.1.2). Given the timelines to implement the WIC review, the ERA finds that it is also appropriate to fund the planning stage for this project as this stage will need to be completed during the remainder of the AR6 period.

To reduce the risk of delaying the implementation of this project, the ERA approves funding the planning stage (Table 13). However, based on the information received to date and the uncertainty surrounding this project such as the specific changes to the WEM Rules and how much different elements of the WEM will change, the ERA is not satisfied that the information provided demonstrates that contingency funding is required or justified to the standard outlined in the guidelines.

Table 13: WIC review funding variance (\$ million)

Item	Proposal	Draft determination	Variance (%)
Planning	0.35	0.35	0
Contingency	0.06	0	(100)
Total	0.41	0.35	(15)

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)) and ERA analysis.

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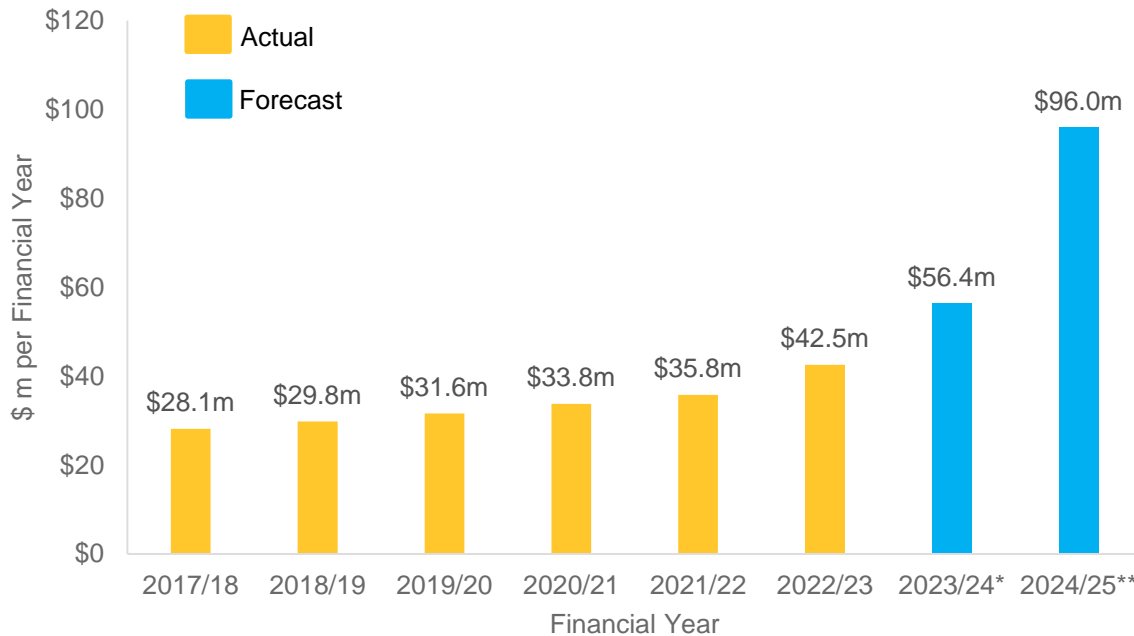
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Appendix 3 Chart and details on AEMO's costs to operate the WEM

Figure 4: AEMO WEM Operating Costs



Source: AEMO WA Budget and Fees documents, AEMO's AR6 proposals.⁴¹

Note: Financial years 2017/18 to 2022/23 are from AEMO's budget figures.⁴²

* - The 2023/24 financial year is a forecast based on AEMO's ESOO and market fees with an estimate based on the approval of the first in-period submission.⁴³

** - The 2024/25 financial year uses AEMO's market fee estimate of \$2.57/MWh as per their second in-period proposal which assumes all spending is approved, and ESOO forecasts of energy consumption.⁴⁴

⁴¹ The 2017/18 figure comes from Australian Energy Market Operator, 2018, *Western Australia Wholesale Electricity Market 2018-19 AEMO Final Budget and Fees*, pp. 6-8, ([online](#)) [accessed 1 May 2024].

The 2018/19 figure comes from Australian Energy Market Operator, 2019, *Western Australia Wholesale Electricity Market 2019-20 AEMO Final Budget and Fees*, p. 6 ([online](#)) [accessed 1 May 2024].

The 2019/20 figure comes from Australian Energy Market Operator, 2020, *Western Australia Wholesale Electricity Market 2020-21 AEMO Final Budget and Fees*, p. 5 ([online](#)) [accessed 1 May 2024].

The 2020/21 figure come from Australian Energy Market Operator, 2021, *Western Australia Wholesale Electricity Market 2021-22 AEMO Budget and Fees*, p. 5 ([online](#)) [accessed 1 May 2024].

The 2021/22 figure come from Australian Energy Market Operator, 2022, *Western Australia Wholesale Electricity Market 2022-23 AEMO Budget and Fees*, p. 5 ([online](#)) [accessed 1 May 2024].

The 2022/23 figure comes from Australian Energy Market Operator, 2023, *WA Budget and Fees 2023-24*, p. 7. ([online](#)) [accessed 1 May 2024].

⁴² Ibid.

⁴³ The 2023/24 forecast of \$56.4 million is based on the \$1.53/MWh market fee estimate (Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure*, p. 13. ([online](#)) [accessed 1 May 2024]) multiplied by the expected consumption of 18,010 GWh (Australian Energy Market Operator, 2023, *2023 Wholesale Electricity Market Electricity Statement of Opportunities*, p. 6. ([online](#)) [accessed 1 May 2024].

⁴⁴ The 2024/25 forecast of \$96.0 million is based on the \$2.57/MWh market fee estimate (Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure*, p. 13. ([online](#)) [accessed 1 May 2024]) multiplied by the expected consumption of 18,237 GWh (Australian Energy Market Operator, 2023, *2023 Wholesale Electricity Market Electricity Statement of Opportunities*, p. 6. ([online](#)) [accessed 1 May 2024].

Appendix 4 AEMO's functions under the WEM Rules

*WEM Rules*⁴⁵

- 2.1A.1. AEMO is conferred functions in respect of the Wholesale Electricity Market under the WEM Regulations and AEMO Regulations.
- 2.1A.1A. The function of ensuring that the SWIS operates in a secure and reliable manner for the purposes of the WEM Regulations is conferred on AEMO.
- 2.1A.2. The WEM Regulations also provide for the WEM Rules to confer additional functions on AEMO. The functions conferred on AEMO are:
- (a) to operate the Reserve Capacity Mechanism, the Short Term Energy Market, the LFAS Market, and the Balancing Market;
 - (b) to settle such transactions as it is required to under these WEM Rules;
 - (c) to carry out a Long Term PASA study and to publish the Statement of Opportunities Report;
 - (cA) to procure adequate Ancillary Services where Synergy cannot meet the Ancillary Service Requirements;
 - (d) to do anything that AEMO determines to be conducive or incidental to the performance of the functions set out in this clause 2.1A.2;
 - (e) to process applications for participation, and for the registration, de-registration, transfer and Essential System Services accreditation of facilities;
 - (eC) to trigger and administer the SESSM in accordance with section 3.15A;
 - (eD) to procure, schedule and dispatch Non-Co-optimised Essential System Services in accordance with these WEM Rules;
 - (f) to release information required to be released by these WEM Rules;
 - (g) to publish information required to be published by these WEM Rules;
 - (h) to develop WEM Procedures, and amendments and replacements for them, where required by these WEM Rules;
 - (i) to make available copies of the WEM Procedures, as are in force at the relevant time;
 - (iA) to monitor Rule Participants' compliance with WEM Rules relating to dispatch and Power System Security and Power System Reliability;
 - (j) to support:
 - i. the Economic Regulation Authority's monitoring of other Rule Participants' compliance with the WEM Rules;
 - ii. the Economic Regulation Authority's investigation of potential breaches of the WEM Rules (including by reporting potential breaches to the Economic Regulation Authority); and
 - iii. any enforcement action taken by the Economic Regulation Authority

⁴⁵ Wholesale Electricity Market Rules (WA), 1 April 2024, ([online](#)).

under the Regulations and these WEM Rules;

- (k) to support the Economic Regulation Authority in its market surveillance role, including providing any market related information required by the Economic Regulation Authority;
- (l) to support the Coordinator and the Economic Regulation Authority in their roles of monitoring market effectiveness, including providing any market related information required by the Coordinator or the Economic Regulation Authority;
- (IA) to contribute to the development and improve the effectiveness of the operation and administration of the Wholesale Electricity Market, by:
 - i. developing Rule Change Proposals;
 - ii. providing support and assistance to other parties to develop Rule Change Proposals;
 - iii. providing information to the Coordinator as required to support the Coordinator's functions under these WEM Rules; and
 - iv. providing information and assistance to the Coordinator and the Economic Regulation Authority as required to support the reviews they carry out under the WEM Rules;
- (IB) to develop and maintain a Congestion Information Resource;
- (IC) to establish, maintain and update a DER Register in accordance with clause 3.24;
- (ID) to participate in the Technical Rules Committee and provide advice on Technical Rules Change Proposals as required by the Economic Regulation Authority under the Access Code, to provide submissions as part of the public consultation process in respect of Technical Rules Change Proposals and to develop and submit Technical Rules Change Proposals relating to System Operation Functions;
- (IE) to support each Network Operator in relation to the standard or technical level of performance in respect of a Technical Requirement applicable to Transmission Connected Generating Systems and perform the associated functions set out in Chapter 3A of these WEM Rules;
- (IF) to advise and consult with each Network Operator in respect of AEMO's System Operation Functions as contemplated under the Technical Rules applicable to their Network(IG) to provide information and assistance to the Coordinator relating to the preparation of the Whole of System Plan by the Coordinator;
- (IH) to contribute to, provide information and assist with, the development of the Transmission System Plan in accordance with section 4.5B;
- (II) to support the Coordinator's role, and to facilitate and implement decisions by the Coordinator and the Minister regarding the evolution and development of the Wholesale Electricity Market and the WEM Rules, and the management of Power System Security and Power System Reliability in the SWIS; and
- (m) to carry out any other functions conferred, and perform any obligations imposed, on it under these WEM Rules.

Appendix 5 AEMO's obligations under the WEM Rules

WEM Rule⁴⁶

- 2.22A.1. Subject to the requirements of this section 2.22A, AEMO may recover its costs for performing its functions under the WEM Regulations and the WEM Rules.
- 2.22A.2. For the Review Period, AEMO must seek the determination of its Allowable Revenue and Forecast Capital Expenditure from the Economic Regulation Authority for its functions, in accordance with the proposal guideline referred to in clause 2.22A.9.
- 2.22A.2A. A submission by AEMO under clause 2.22A.2 must be made and processed in accordance with the following timelines:
- (a) by 31 October of the year prior to the start of the Review Period, AEMO must submit a proposal for its Allowable Revenue and Forecast Capital Expenditure over the Review Period to the Economic Regulation Authority;
 - (b) by 31 March of the year in which the Review Period commences, the Economic Regulation Authority must publish on its website a draft determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period for public consultation;
 - (c) by 30 April of the year in which the Review Period commences, the Economic Regulation Authority must prepare and publish on its website its final determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period together with any submission received in response to the draft determination published in accordance with clause 2.22A.2A(b); and
 - (d) where the Economic Regulation Authority does not make a determination by the date in clause 2.22A.2A(c) or clause 2.22A.2B(c), the Market Fee rate and System Operation Fee rate determined in accordance with section 2.24 for the current Financial Year will continue to apply until the Economic Regulation Authority makes a determination.
- 2.22A.3. AEMO's proposal under clauses 2.22A.2A(a) or 2.22A.2B(b) or AEMO's application for reassessment under clauses 2.22A.12 or 2.22A.13 must, to the extent practicable, identify proposed costs that are associated with a specific project or where that is not practicable, one or more specific functions.
- 2.22A.4. If AEMO appoints a Delegate, then its proposal for, or application for reassessment of, its Allowable Revenue and Forecast Capital Expenditure must separately itemise the amount payable to the Delegate.
- 2.22A.7. By 30 June each year, AEMO must publish on the WEM Website a budget for the costs AEMO will incur in performing its functions for the coming Financial Year (including, without limitation, the amount to be paid to a Delegate). AEMO must ensure that its budget is:
- (a) consistent with the Allowable Revenue and Forecast Capital Expenditure determined by the Economic Regulation Authority for the relevant Review Period and any reassessment; and
 - (b) reported in accordance with the Regulatory Reporting Guidelines issued by the Economic Regulation Authority from time to time in accordance with clause 2.22A.9.

⁴⁶ Wholesale Electricity Market Rules (WA), 1 April 2024, ([online](#)).

- 2.22A.8. By 31 October each year, AEMO must publish on the WEM Website a financial report showing AEMO's actual financial performance against its budget for the previous Financial Year (including, without limitation, the actual amount paid to a Delegate compared to the budgeted amount). The report must be in accordance with the Regulatory Reporting Guidelines issued by the Economic Regulation Authority from time to time in accordance with clause 2.22A.9.
- 2.22A.11. Where the revenue earned for the functions performed by AEMO via Market Fees in the previous Financial Year, is greater than or less than AEMO's expenditure for that Financial Year, AEMO's current year's budget must take into account any difference between AEMO's Market Fees revenue and AEMO's expenditure in the previous Financial Year by:
- (a) decreasing the budgeted revenue by the amount of any revenue surplus;
or
 - (b) increasing the budgeted revenue by the amount of any revenue shortfall.
- 2.22A.12. Where, taking into account any adjustment under clause 2.22A.11, AEMO's budget is likely to result in revenue recovery, over the relevant Review Period, being at least the lower of 10% of the Allowable Revenue or \$10 million, greater than the Allowable Revenue determined by the Economic Regulation Authority, AEMO must apply to the Economic Regulation Authority to reassess the Allowable Revenue.
- 2.22A.13. AEMO must apply to the Economic Regulation Authority to determine the adjusted Forecast Capital Expenditure for the current Review Period if the capital expenditure, over the relevant Review Period, is likely to be at least the lower of 10% of the Forecast Capital Expenditure or \$10 million, greater than the Forecast Capital Expenditure determined by the Economic Regulation Authority.
- 2.22A.13A. If AEMO underspends on the Allowable Revenue and/or Forecast Capital Expenditure determined by the Economic Regulation Authority in a Review Period, then, for the next Review Period, the \$10 million threshold in clause 2.22A.13 is to be increased to the amount equal to 30 percent of the underspend plus \$10 million.
- 2.22A.14. AEMO may apply to the Economic Regulation Authority, at any time during a Review Period, for additional costs to be considered by the Economic Regulation Authority as part of the Allowable Revenue and Forecast Capital Expenditure for that Review Period:
- (a) for the Allowable Revenue:
 - i. costs previously rejected by the Economic Regulation Authority pursuant to clause 2.22A.6;
 - ii. new costs for new projects or new functions conferred on AEMO since AEMO's proposal for its Allowable Revenue for the current Review Period was submitted; and
 - iii. costs which were not able to be estimated with reasonable confidence at the time the Allowable Revenue for the current Review Period was submitted; and
 - (b) for the Forecast Capital Expenditure:
 - i. costs previously rejected by the Economic Regulation Authority pursuant to clause 2.22A.5;
 - ii. new costs for new projects or new functions conferred on AEMO since AEMO's proposal for its Forecast Capital Expenditure for the

- iii. current Review Period was submitted; and costs which were not able to be estimated with reasonable confidence at the time of the Forecast Capital Expenditure for the current Review Period was submitted.
- 2.22A.16. AEMO must make an application under clauses 2.22A.12 or 2.22A.14(a) by 31 March for the Economic Regulation Authority to make a determination before the commencement of the Financial Year to which it relates.

Appendix 6 ERA's obligations under the WEM Rules

*WEM Rules*⁴⁷

- 2.22A.2B. Notwithstanding clause 2.22A.2A, for the Review Period from 1 July 2022 to 1 July 2025 the following applies:
- (a) the Economic Regulation Authority must publish a proposal guideline by 31 October 2021;
 - (b) AEMO must submit a proposal for its Allowable Revenue and Forecast Capital Expenditure to the Economic Regulation Authority for the Review Period by 31 December 2021;
 - (c) the Economic Regulation Authority must publish on its website a draft determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period for public consultation by 31 March 2022; and
 - (d) the Economic Regulation Authority must prepare and publish on its website its final determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period by 31 May 2022.
- 2.22A.5. The Economic Regulation Authority must take the following into account when determining AEMO's Allowable Revenue and Forecast Capital Expenditure or an application for reassessment to the Allowable Revenue or Forecast Capital Expenditure:
- (a) the Allowable Revenue must be sufficient to cover the forward looking costs of performing AEMO's functions in accordance with the following principles:
 - i. recurring expenditure requirements and payments are recovered in the year of the expenditure; and
 - ii. capital expenditure is to be recovered through the depreciation and amortisation of the assets acquired by the capital expenditures in a manner that is consistent with generally accepted accounting principles;
 - (b) the Allowable Revenue and Forecast Capital Expenditure must include only costs which would be incurred by a prudent provider of the services provided by AEMO in performing its functions, acting efficiently, to achieve the lowest practicably sustainable cost of performing AEMO's functions, while effectively promoting the Wholesale Market Objectives;
 - (c) where possible, the Economic Regulation Authority should benchmark the Allowable Revenue and Forecast Capital Expenditure against the costs of providing similar functions and/or projects in other jurisdictions;
 - (d) where costs incurred by AEMO relate to both the performance of functions in connection with the WEM Rules, and the performance of AEMO's other functions, the costs must be allocated on a fair and reasonable basis between:
 - i. costs recoverable as part of AEMO's Allowable Revenue and Forecast Capital Expenditure; and
 - ii. other costs not to be recovered under the WEM Rules; and
 - (e) any other matters the Economic Regulation Authority considers relevant to its determination.

⁴⁷Wholesale Electricity Market Rules (WA), 1 April 2024, ([online](#)).

- 2.22A.6. The Economic Regulation Authority may do any or all of the following in respect to AEMO's proposal under clauses 2.22A.2A(a) or 2.22A.2B(b):
- (a) approve the costs of any project;
 - (b) approve the costs of AEMO performing its functions;
 - (c) if the Economic Regulation Authority considers that some costs do not meet the requirements of clause 2.22A.5, reject the costs fully or partially, or substitute those costs with costs the Economic Regulation Authority considers meets the requirements of clause 2.22A.5; and
 - (d) recommend to AEMO that some of the costs be considered in a subsequent Review Period or in accordance with clause 2.22A.14.
- 2.22A.9. The Economic Regulation Authority must issue guidelines, following public consultation, in relation to this section 2.22A, including:
- (a) proposal guidelines, which must consider how future projects that carry a risk of not proceeding or for which the associated costs are not able to be quantified may be dealt with, and provide clarity and guidance to AEMO and Market Participants regarding the level of detail about projects, functions and costs expected in AEMO's proposal; and
 - (b) regulatory reporting guidelines, which:
 - i. must contain annual reporting obligations and provide clarity and guidance to AEMO and Market Participants about the scope of reporting and how AEMO should annually report to the Economic Regulation Authority and Market Participants; and
 - ii. are aimed at providing transparency and accountability in relation to AEMO's functions and Allowable Revenue and Forecast Capital Expenditure.
- 2.22A.10. The Economic Regulation Authority may amend guidelines issued under clause 2.22A.9 at any time, following public consultation which allows a reasonable opportunity for relevant stakeholders to present their views.
- 2.22A.11. Where the revenue earned for the functions performed by AEMO via Market Fees in the previous Financial Year, is greater than or less than AEMO's expenditure for that Financial Year, AEMO's current year's budget must take into account any difference between AEMO's Market Fees revenue and AEMO's expenditure in the previous Financial Year by:
- (a) decreasing the budgeted revenue by the amount of any revenue surplus;
or
 - (b) increasing the budgeted revenue by the amount of any revenue shortfall.
- 2.22A.15. The Economic Regulation Authority may request information from AEMO in relation to the performance of its functions under this section 2.22A. AEMO must provide the information to the Economic Regulation Authority by the time specified in a request, which must be reasonable.
- 2.22A.17. The Economic Regulation Authority may amend a determination under clauses 2.22A.2A(c) or 2.22A.2B(d) if AEMO makes a reassessment application under clauses 2.22A.12, 2.22A.13 or 2.22A.14 and the Economic Regulation Authority:
- (a) must take the matters referred to in clause 2.22A.5 into account in determining any reassessment;
 - (b) may consider as part of its amended determination any earlier determined costs where the Economic Regulation Authority reasonably

- considers it necessary to review those earlier determined costs as part of the reassessment;
- (c) is not required to reassess earlier determined costs in making its redetermination of the Allowable Revenue or Forecast Capital Expenditure; and
 - (d) must complete such public consultation as the Economic Regulation Authority considers appropriate in the circumstances.