



Economic Regulation Authority

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

Final determination

28 June 2024

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Executive summary

The Australian Energy Market Operator (AEMO) has sought approval to increase its funding to operate the Western Australian Wholesale Electricity Market (WEM).

AEMO's ability to raise funds through market fees is governed by the 'allowable revenue' regime in the WEM Rules. This regime requires AEMO to submit a funding proposal to the ERA at the start of each allowable revenue period, which covers three consecutive financial years. The sixth review period, called AR6, runs from 1 July 2022 to 30 June 2025. During an allowable revenue period, if AEMO needs more money than is already approved, it must seek the ERA's approval to fund those additional costs.¹ So far over AR6, the ERA has approved \$142.3 million in allowable revenue (operating expenditure) and \$108.3 million in forecast capital expenditure from AEMO's initial AR6 application and its first in-period submission. This determination deals with AEMO's second in-period funding proposal received in March 2024.

The ERA received AEMO's second in-period submission on 18 March 2024, seeking an increase of \$59.2 million in allowable revenue and \$39.0 million in forecast capital expenditure.² AEMO requires these funds to cover a revenue shortfall across the period and increases in costs expected over 2024/25, the final year of the AR6 period. The ERA's draft determination, published on 15 May 2024, approved a \$27.7 million increase in allowable revenue and a \$21.0 million increase in forecast capital expenditure pending further information from AEMO to justify the rest of its proposed funding increase.

The ERA received seven submissions on the draft determination, including one from AEMO. The submissions highlighted a range of concerns including increasing market fees that impact the cost of electricity, the need for the costs and benefits of the electricity reform program to be demonstrated, and the need for AEMO to be sufficiently funded to operate the WEM and to deliver market reform projects (see Appendix 4). The ERA's final determination has considered this feedback.

Changes from the draft determination

AEMO and the ERA engaged extensively during the public consultation period to address the concerns and information gaps in AEMO's proposal that were identified in the draft determination. This new information provided by AEMO, where not confidential, was reflected in AEMO's submission to the draft determination.³ The ERA is satisfied that the information gaps relating to overtime, labour costs, external cost pressures and project contingencies have now been adequately addressed.

AEMO's initial AR6 proposal in December 2021 significantly underestimated both operational and capital labour requirements to deliver and maintain the new WEM, which has resulted in a cost overrun throughout the AR6 period. Based on the information provided, the ERA estimates that AEMO will have spent most of the allowable revenue approved in the original AR6 determination by the end of 2023/24. By 30 June 2024, AEMO will have spent \$58.6 million of the \$64.6 million in operational labour approved in the AR6 final determination (almost three years of labour funding spent in two years).

¹ The WEM Rules requires AEMO to apply to the ERA if it requires funds above the threshold which is the lesser of \$10 million or 10 per cent of forecast capital expenditure – Wholesale Electricity Market Rules (WA), 8 June 2024, Rule 2.22A.13, ([online](#)).

² Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)). AEMO's operating expenditure was revised up to \$59.99 million in AEMO's submission to the ERA's draft determination, see chapter 2.

³ Australian Energy Market Operator, May 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, ([online](#)).

AEMO has informed the ERA that if only the amount approved in the draft determination were reflected in the final determination, AEMO would be unable to retain enough personnel to perform its core functions or progress the energy transformation reform to the end of the AR6 period.⁴ This is a significant consideration for the ERA's final determination.

Final determination

The ERA's final determination is to approve \$58.29 million in allowable revenue and \$37.9 million in forecast capital expenditure (see Table 1). The increase in approved funding between the draft determination and final determination, particularly for operational labour costs, reflects the need to ensure that AEMO is adequately funded to cover its forward-looking costs. Fully funding AEMO will allow AEMO to maintain the safe and reliable operation of the WEM and to continue implementation of energy sector reforms.

The ERA is aware that the additional funding will flow through to WEM fees, with likely increases to the costs for consumers. Although this is unwelcome in the context of other rising costs in the WEM, minimising costs needs to be balanced against the risk of underfunding AEMO and rendering it unable to operate the WEM or to deliver critical market reform projects.

AEMO cannot demonstrate, nor can the ERA fully determine, that the level of funding requested reflects that needed by a prudent and efficient market operator in the current market reform landscape. Components of AEMO's funding proposal have not met the standard set out in the ERA's proposal guidelines, and its project management processes continue to raise concerns. However, the ERA notes AEMO is working to improve its processes and governance. Without reliable benchmarked costs, the ERA cannot determine a lesser amount of funding or risk underfunding AEMO, which highlights a fundamental problem with the allowable revenue regime (discussed below).

Several stakeholder submissions to the draft determination stated that benchmarking is feasible and can add value when evaluating the efficiency of AEMO's costs, particularly in the context of the upcoming AR7 review period.

Benchmarking may provide insights on efficiency. However, finding appropriate benchmark comparators is inherently difficult. Differences in market design, market size and legislative requirements result in each market operator having a variety of different roles and functions, and these can change over time. As AEMO's roles and functions are bespoke to the WEM and are changing in line with energy transition objectives (requiring the development of new critical IT infrastructure), the ERA questions if undertaking an extensive international research exercise, at significant cost, will provide an appropriate benchmark for AEMO. Energy market operators working in distinctly different environments are unlikely to provide a useful common base to compare AEMO with, which makes an efficiency assessment challenging.

To ensure AEMO is adequately funded, the ERA has approved most of the amounts AEMO requested in its proposal.

Table 1: Difference between draft and final determination (\$ million)

| Expenditure category | AR6 second in-period proposal | Draft determination | Final determination | Variance to proposal (%) |
|----------------------|-------------------------------|---------------------|---------------------|--------------------------|
| Allowable revenue | 59.99 | 27.7 | 58.29 | (3) |

⁴ Australian Energy Market Operator, May 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, Section 2.4 ([online](#)).

| Expenditure category | AR6 second in-period proposal | Draft determination | Final determination | Variance to proposal (%) |
|------------------------------|-------------------------------|---------------------|---------------------|--------------------------|
| Forecast capital expenditure | 39.0 | 21.0 | 37.9 | (3) |
| Total | 98.99 | 48.7 | 96.19 | (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.

Note: AEMO's allowable revenue request was revised up to \$59.99 million from the increase in operating expenditure labour costs in section 2.3 of AEMO's submission to the draft determination – Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, pp. 24-25, ([online](#)). Some figures have been rounded.

Challenges with the current regulatory regime

The ERA's previous determinations have commented on problems with the allowable revenue regulatory regime. AEMO's current in-period submission highlights the incompatibility of the regime with the current environment in the WEM.

The regime has a framework reflective of network regulation where a network service provider's past costs are a reliable indicator of its forward costs. Under such a framework, forward cost estimates are typically based on indexing past costs while incorporating new ones. The network service operator is typically allowed to retain any cost savings over a limited period, which provides a strong incentive to seek out gains in efficiency.

In practice, AEMO's current operational environment is one of rapid change with little long-term certainty. AEMO is required to deliver its day-to-day functions and ongoing reform programs to predefined deadlines established in policy and legislation. Further, as a not-for-profit, AEMO is not incentivised to reduce costs in the same way a profit-driven network service provider that is allowed to retain the benefits of any efficiency gains it achieves. These factors make it challenging for the ERA to impose a measure of prudence and efficiency when AEMO is not incentivised to operate in this way and with new functions and delivery timelines determined external to the organisation.

The regime also lacks measures to constrain AEMO from expending funds above its approved limit. The ERA expects that a regulated entity would raise concerns around significant overspending or underfunding at the time it becomes aware of the problem, irrespective of timelines around formal applications for adjustments. This has not occurred over AR6. While AEMO indicated it would likely require another adjustment at the time of the first in period submission, the magnitude of the overspend was not raised with the ERA. Clear communication between regulated entities and the regulator is important for the efficient functioning of the WEM.

The ERA's determination is informed by the quality of AEMO's information. While AEMO is working to improve its financial reporting and project planning processes, this determination process has shown that AEMO has been limited in what information it can produce and has not provided sufficient information to satisfy the ERA's requirements.

The ERA retains concerns around the quality and depth of information underpinning AEMO's submission for future funding. The impact of these limitations can be seen in the significant underestimation of operational labour requirements in the original AR6 submission. As a result, a large proportion of the allowable revenue requested in this second in-period

submission is to address this shortfall and essentially resets the total cost for the AR6 period to a substantially higher level.

To fully understand if AEMO is operating efficiently, an independent and external efficiency review would be required prior to the next allowable revenue period. This process would be costly and the benefit, which would be to provide a new baseline level of efficiency, might be quickly outdated as AEMO takes on new responsibilities related to the ongoing WEM reform.

These issues with the allowable revenue regime are discussed in detail in chapter 6.

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 (operational expenditure) and its forecast capital expenditure, relating to provision of these services in Western Australia for a three-year period. If AEMO requires adjustments during this period, it must apply to the ERA if the amount is above the threshold of 10 per cent or \$10 million for either allowable revenue or forecast capital expenditure.⁵

1.1 In-period review process and timeline

The ERA received AEMO's second AR6 in-period submission on 18 March 2024, which proposed increasing AEMO's allowable revenue by \$59.2 million (operating expenditure) and increasing forecast capital expenditure by \$39.0 million.⁶ The ERA published AEMO's proposal on 19 March 2024 on the ERA's website.⁷

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 are shown in Figure 1 below.

Figure 1: Timeline for AEMO's second in-period submission



Source: ERA analysis and Wholesale Electricity Market Rules (WA), 8 June 2024, Section 2.22A ([online](#)).

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:

⁵ Wholesale Electricity Market Rules (WA), 8 June 2024, Rule 2.22A.12 and 2.22A.13 ([online](#)).

⁶ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)). AEMO's operating expenditure was revised up to \$59.99 million in AEMO's submission to the ERA's draft determination, see chapter 2.

⁷ Economic Regulation Authority, 'Allowable Revenue and Forecast Capital Expenditure Determinations', ([online](#)).

- 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's objectives.⁸

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.⁹ The ERA can consider any other matters it regards as relevant to its determination.¹⁰

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.¹¹

1.2.1 Application of the allowable revenue framework

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 prepare its proposal in accordance with the guideline as required by the WEM Rules.^{12,13}

To assist in assessing whether an AEMO project cost needs to be incurred (prudence test), the guideline requires AEMO to provide evidence that a project is necessary, 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 assess 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.

⁸ Wholesale Electricity Market Rules (WA), 8 June 2024, Rule 2.22A.5(b), ([online](#)).

⁹ Ibid, Rule 2.22A.5(c), ([online](#)).

¹⁰ Ibid, Rule 2.22A.5(e), ([online](#)).

¹¹ Ibid, Rule 2.22A.6, ([online](#)).

¹² Ibid, Rule 2.22A.2, ([online](#)).

¹³ Economic Regulation Authority, 2022, *Guideline to inform the Australian Energy Market Operator's funding proposal*, ([online](#)).

- 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.

1.3 ERA's approach to assessing AEMO's proposal

AEMO's second in-period submission cited underlying cost drivers to explain proposed funding increases while supporting documentation was presented in line with operational cost categories, as set out in the guidelines.¹⁴ As a result, it was difficult to reconcile the amounts requested in the submission to the supporting documentation. For example, AEMO's submission stated that labour cost increases were spread across different cost drivers, but the specific amounts for labour costs under each cost driver were not easily identifiable.

In the ERA's draft determination, the ERA applied the WEM Rules and the proposal guidelines to assess AEMO's proposal for each cost category under each driver. A significant proportion of the ERA's effort in assessing the proposal was spent extracting the labour cost element from each cost driver and trying to align the requested funding to AEMO's financial reporting and supporting documentation.

Under the current regulatory framework, AEMO must provide all information needed to satisfy the ERA that requested funding is prudent and efficient, and sufficient to cover AEMO's forward looking costs. The ERA will seek clarification where necessary, but the onus is on AEMO to develop convincing and thorough submissions.

The ERA's final determination is based on the additional information provided by AEMO after making its submission, stakeholder feedback to the draft determination, the ERA's understanding of the WEM and market reforms, and support provided by the Western Australian Treasury Corporation.

1.3.1 Reasoning for changes from the draft determination

AEMO clarified in its submission on the draft determination that based on the interim approved funding amount it would not be able to retain enough staff to maintain basic WEM operations, let alone undergo system planning or reform work as part of the energy transition. AEMO stated that:¹⁵

The Draft Determination level of funding would sustain staffing levels in the final year of AR6 of around 50-60 FTE [Full-Time Equivalent] (depending on the composition of staff), a shortfall of at least 145 FTE based on current staffing numbers and around 150 based on forecast need.

...

AEMO estimates that with around 50-60 FTE AEMO would need to prioritise the core aspects of the system and market operation functions, but with increased risk associated with the lower staff levels (currently 74 FTE).

¹⁴ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure*, p. 6, ([online](#)).

¹⁵ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, ([online](#)).

Activities that AEMO could no longer undertake within the AR6 period at the proposed level of funding include:

- Reform implementation: ...
- Reform development: ...
- Industry training and support: ...
- Internal projects: ...

The rate of change of reform in the WEM and AEMO's specific role in designing, amending and building information technology (IT) solutions to deliver the reform program, some of which are being created for the first time, make it difficult for the ERA to evaluate the efficiency of these costs. Delivering and costing IT projects is challenging in the WEM given the bespoke nature of the WEM's systems and the scope of changes required. In this context, the ERA has to consider the trade-off of funding activities with a high degree of uncertainty, which if overestimated risks cost efficiency; and if underfunded, risks the ability for AEMO to cover its forward-looking costs. Despite uncertainty, the costs need to align with AEMO's roles and responsibilities to operate the WEM and implement priority reform projects.

To minimise potential market disruption, promote the WEM objective of economically efficient supply of electricity, and allow the energy transition to progress, the ERA's final determination is to provide the requested level of funding for AEMO to carry out its functions. Not approving this funding would jeopardise operations in the WEM and delay the implementation of measures designed to support the energy transition.

The ERA is aware of the likely impact on market fees and the flow on effect for market participants and ultimately on consumers. Although this is unwelcome, in the context of other rising costs in the market, the alternative is to prohibit AEMO recovering enough to operate the WEM and delay activities to enable the transition. This outcome would not align with the WEM objectives.

1.4 Stakeholder submissions on the draft determination

The ERA received seven submissions on the draft determination, including one from AEMO. The submissions raise a range of important issues. In summary:

1. There is considerable concern from market participants around the increasing costs in the WEM and the flow on effect of increased market fees. This issue is compounded by the lack of clarity around when these increases will taper off, or if these increases will continue.
2. AEMO needs to be sufficiently funded to continue operating the WEM and deliver key reform activities to support the energy transition.

These two perspectives reflect the dichotomy of stakeholder concerns that the ERA has considered throughout this in-period review.

2. AEMO's second in-period submission

This section summarises AEMO's funding proposal for the second in-period proposal.

The proposal increases allowable revenue from \$142.3 million to \$202.3 million and forecast capital expenditure from \$108.3 million to \$147.4 million. This is a 39 per cent increase to the already approved funding. Table 2 shows the total AEMO AR6 WEM funding amounts including both in-period adjustments.

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

| Expenditure type | ERA approved AR6 (May 2022) | ERA approved first in-period submission (September 2023) | AEMO second in-period submission | AEMO proposed new AR6 total |
|------------------------------|-----------------------------|--|----------------------------------|-----------------------------|
| Allowable revenue | 142.3 | - | 59.99 | 202.29 |
| Forecast capital expenditure | 61.5 | 46.8 | 39.0 | 147.3 |

Note: AEMO corrected its allowable revenue amount from \$59.2 million to \$59.99 million in its submission to the draft determination to include the contingency costs for Project Eagle and the WEM and SWIS Power System Modelling projects. These amounts were missed from the total requested for operational project costs in AEMO's original second in-period submission.

Figures and totals may not add directly due to rounding.

Source: Prior ERA AR6 determinations and AEMO's proposal.^{16, 17, 18, 19}

AEMO's proposal also sets out the drivers behind the increase in operational costs (Table 3):²⁰

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

| AEMO classified cost driver | Description of the driver | Increase in operating expenditure |
|--------------------------------------|---|-----------------------------------|
| Recovery of WEM reform program costs | Depreciation and borrowing costs resulting from WEM reform projects approved in the first in-period submission. | 13.2 |

¹⁶ 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](#)),

¹⁷ Economic Regulation Authority, 2023, *AEMO AR6 in-period forecast capital expenditure adjustment – Final determination*, p 23, ([online](#))

¹⁸ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, ([online](#)).

¹⁹ AEMO's submission to the draft determination showed that a higher labour cost amount is required to account for operating expenditure project contingencies – Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, ([online](#)).

See section 4.1.4 of this determination for more detail.

²⁰ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, p.6 ([online](#)).

| AEMO classified cost driver | Description of the driver | Increase in operating expenditure |
|---|---|-----------------------------------|
| Externally driven financial costs | Increase in interest rates, inflation and labour cost escalation. | 7.6 |
| AEMO capability uplifts | Additional investments in AEMO's cyber security and finance systems. | 4.9 |
| New reform and energy transition activities | Project costs to implement State Government's energy transformation strategy, operate the new WEM and manage the energy transition. | 34.29 |
| Total | | 59.99 |

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

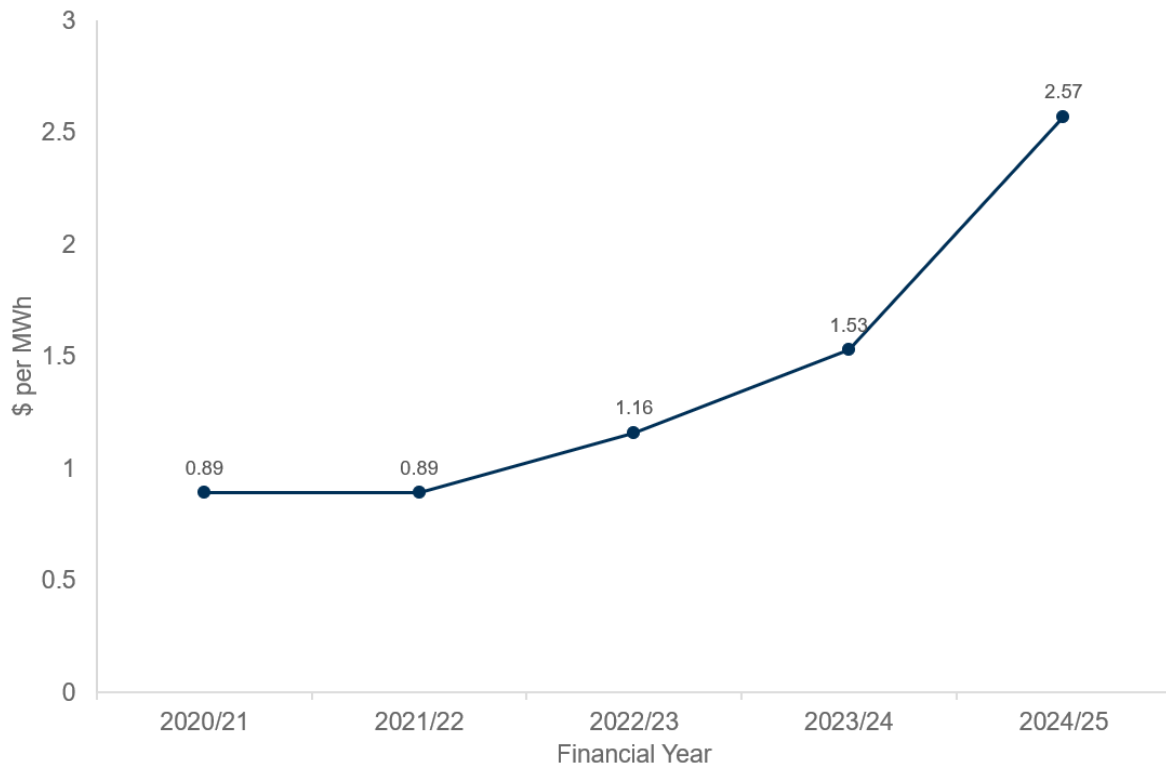
Note: The amount for new reform and energy transition activities has increased from \$33.5 million in AEMO's proposal to \$34.29 million, stated in AEMO's response to the ERA's draft determination, due to a calculation error in the original proposal. The contingency amounts for Project Eagle and the WEM and SWIS Power System Modelling projects were included in AEMO's appendices to its proposal but were not reflected in the total requested for operational project costs. This is also reflected in the increase from a total allowable revenue amount of \$59.2 million to \$59.99 million.

2.1 Projected market fee increase

The ERA acknowledges that some stakeholders expressed concerns in their submissions around further increases in market fees (Appendix 4). Based on the proposed second in-period funding increase, AEMO estimates the 2024/25 market fees will increase by \$1.04 per MWh (a 68 per cent increase) from \$1.53 per MWh in 2023/24, to \$2.57 per MWh for 2024/25. Figure 2 shows the change in the market fee from the original AR6 to this second in-period proposal.

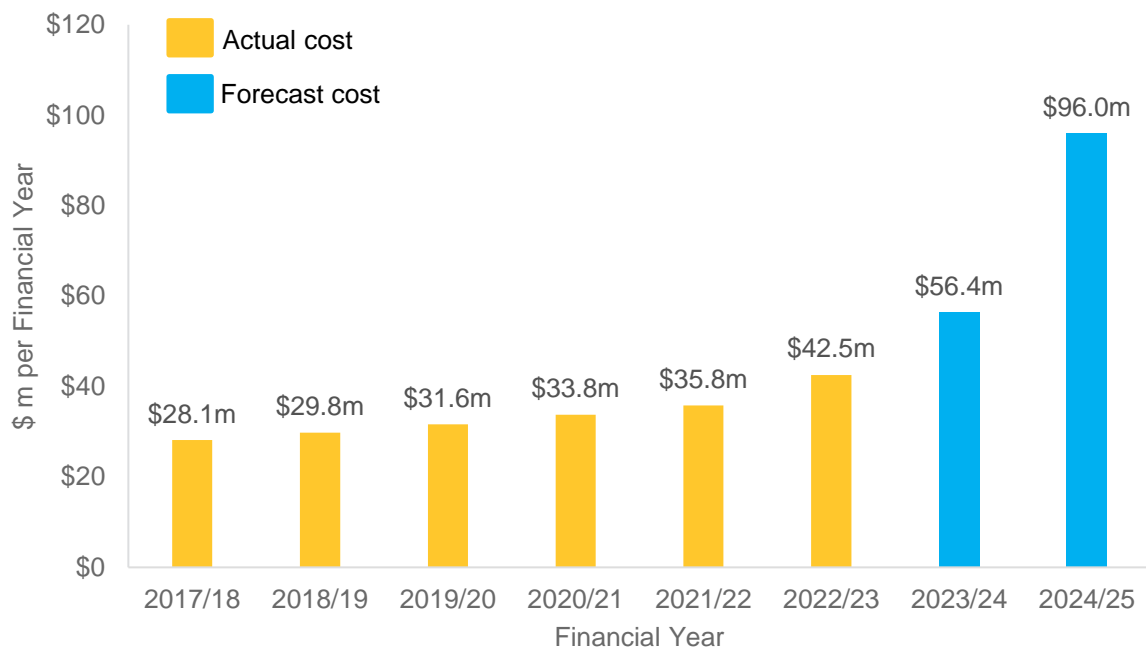
AEMO stated that the steepness of the proposed 2024/25 fee increase is due in part to the timing of the first in-period submission. The WEM Rules require AEMO to apply for an increase to its allowable revenue before the 31 March, however AEMO's first in-period submission was not provided until 26 April 2023.²¹ This meant that AEMO could not apply for additional operational funding (allowable revenue) during the first in-period proposal due to the WEM Rule deadline. As a result, the 2024/25 market fee includes the operational cost overruns in 2022/23 and 2023/24, and the additional costs required in 2024/25. The ERA estimates that at least \$17 million, just under a third, of the additional operational funding requested in the second in-period proposal relates to costs already incurred in 2022/23 and 2023/24.

²¹ Wholesale Electricity Market Rules (WA), 8 June 2024, Rule 2.22A.16, ([online](#)).

Figure 2 Projected market fee increase based on AEMO's second in-period funding proposal

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

The overall cost to operate the WEM has become increasingly more expensive since the beginning of WEM reform. The next increase in market fees in 2024/25 means that the annual cost to operate the WEM will increase from \$56.4 million in 2023/24 to \$96.0 million in 2024/25 (Figure 3). The ERA appreciates the concerns raised in stakeholder feedback as these costs are ultimately borne by customers and market participants; the benefits of ongoing policy and WEM reform work will need to be weighed against future cost increases.

Figure 3: AEMO WEM Operating Costs

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

3. ERA final determination

The ERA's final determination is to fund \$58.29 million of allowable revenue and \$37.9 million of capital expenditure in AEMO's second in-period submission, a \$47.5 million total increase from the draft determination. Table 4 includes the total amount of funding approved to AEMO to operate the WEM over AR6.

Table 4: Total amount approved to fund AEMO for the WEM over AR6 (\$ million)

| | AR6 Final Determination | First in-period submission | Second in-period submission | Total |
|------------------------------|-------------------------|----------------------------|-----------------------------|--------|
| Allowable revenue | 142.3 | - | 58.29 | 200.59 |
| Forecast capital expenditure | 61.5 | 46.82 | 37.9 | 146.22 |

Source: Economic Regulation Authority, 2022, *Australian Energy Market Operator's allowable revenue and forecast capital expenditure proposal for the period 1 July 2022 to 30 June 2025*, p. vii, ([online](#)), and Economic Regulation Authority, 2023, *AEMO AR6 in-period forecast capital expenditure adjustment*, p. 23, ([online](#)).

3.1 Changes in amounts approved

The material changes to approved expenditure from the draft determination are:

- \$33.69 million in operational labour costs – details are provided in section 4.1. In effect, AEMO's original AR6 proposal significantly underestimated operational expenditure labour costs. Most of the original funding approved for AR6 has been spent and additional funds are now necessary to continue safe and secure operations of the WEM and implementation of reform and energy transition.
- \$5.1 million in supplies and services – details are provided in section 4.4. Additional information was provided following the draft determination to demonstrate that most of these costs relate to consultancy services.
- \$13.9 million for the Metering system upgrade and cost allocation review – details provided in section 5.2. Feedback from stakeholder submissions and additional information provided by AEMO support the need for execution activities to commence before AR7.
- Approval of capital project contingencies – details are provided in chapter 5. AEMO provided additional details during the consultation process which addressed the information gaps raised in the ERA's draft determination.

4. Detailed assessment of AEMO's allowable revenue (operating expenditure)

This chapter outlines each allowable revenue item in AEMO's proposal, any changes in the ERA's position following AEMO's submission to the draft determination, and the ERA's final determination.

ERA's final determination on allowable revenue is summarised in Table 5.

Table 5: AEMO's proposal and ERA's final determination on operating expenditure (\$ million)

| Operating cost category | AEMO second in-period proposal | ERA final determination | Variance |
|------------------------------------|--------------------------------|-------------------------|--------------|
| Labour costs | 33.99 | 33.69 | (0.3) |
| Accommodation | 1.2 | 1.2 | 0 |
| IT and telecommunications | 1.0 | 1.0 | 0 |
| Supplies and services | 6.5 | 5.1 | (1.4) |
| Depreciation and amortisation | 9.8 | 9.8 | 0 |
| Borrowing | 7.2 | 7.2 | 0 |
| Adjustment for over/under recovery | 0.3 | 0.3 | 0 |
| Total allowable revenue | 59.99 | 58.29 | (1.7) |

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.

Note: The labour cost amount increased from the \$33.2 million requested in AEMO's second in-period submission to \$33.99 million due to a calculation error. The contingency amounts for Project Eagle and the WEM and SWIS Power System Modelling projects were included in AEMO's appendices to its proposal but were not reflected in the total requested for operational project costs.

4.1 Labour costs

Labour costs made up the largest portion of the operational expenditure request at \$33.99 million. This is primarily due to AEMO under-forecasting both operational and capital labour costs required to deliver and operate the new WEM. The ERA has now confirmed that AEMO exceeded its expected operational labour costs from as early as 2022/23, the first year of the AR6 period. The ERA approved \$8 million in additional labour costs in its draft determination. The approval for the remaining \$25.2 million was withheld pending supporting evidence.

The ERA accepts that the emerging complexity of the WEM and the accelerating pace of energy reform requires AEMO to take on new and expanded responsibilities, which come with increased costs. It is prudent for AEMO to continue to operate and adapt to maintain safe operation of the SWIS, the WEM, and deliver the Government's energy reform.

Since the draft determination, the ERA has learned that AEMO's requirement for the substantial additional funding in its second in-period submission is because AEMO's original AR6 proposal significantly underestimated operational expenditure labour costs.

AEMO's labour costs have mainly increased due to:

- Under forecast of operational activities (see section 4.1.1).
- Personnel performing operating expenditure activities instead of capital expenditure activities (see section 4.1.2).
- Its new operating structure and ongoing reform (see section 4.1.3).

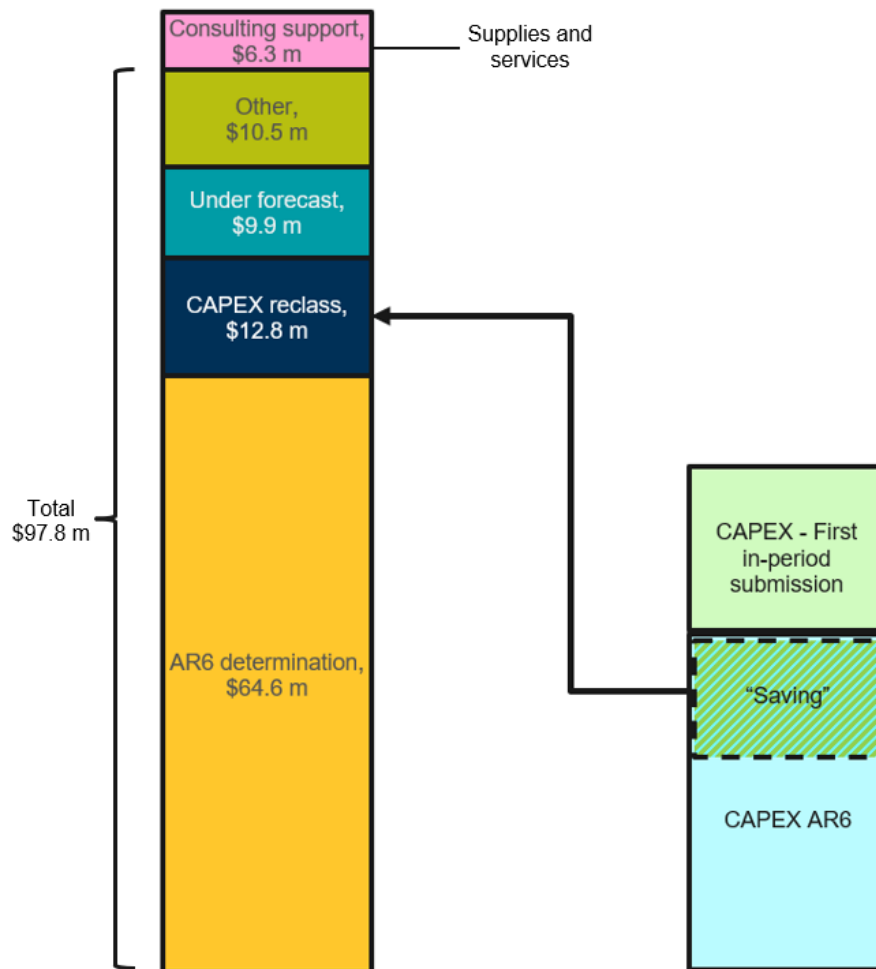
In addition to significant increases in operational labour costs, AEMO is also requesting consultancy expenditure under suppliers and services to support additional external resources (see section 4.4):

- This expenditure is for consultants engaged to deliver business-as-usual operations and non-capital activities on new projects. While consultants' costs are classified under the supplies and services category, not labour, they form part of the narrative regarding AEMO's significant under forecasting of resources to deliver its work program.

The ERA questioned why the reclassification of labour costs from capital to operational expenditure did not result in a capital expenditure saving. AEMO explained that this saving reduced the total capital expenditure amount requested in its first in-period submission. Without this reclassification a larger amount of capital funding would have been required.

This refined understanding of AEMO's need for increased funding to cover labour costs is illustrated in Figure 4.

Figure 4: Evolution of resourcing the WEM across the AR6 determination and in-period submissions



Source: ERA analysis of information provided by AEMO and AEMO's second in-period submission.

Note: Diagram for illustrative purposes only and is not to scale.

The 'Other' category includes external cost pressures, non-capitalised project labour and capability uplifts, discussed below.

The sections below provide details of the ERA's updated findings and its final determination on labour cost funding.

4.1.1 AEMO WA's new operating model and full-time equivalent staff numbers

In practice, the ERA does not approve the specific number of full-time equivalent (FTE) staff employed by AEMO, however the ERA's assessment of labour costs is based on detailed analysis of AEMO's full-time equivalent staff numbers and their allocation to different functions and projects. The ERA encountered difficulties reconciling AEMO's FTE numbers referenced in its second in-period submission with its supporting documentation and the original AR6 proposal. These difficulties included:

- The incorrect allocation of some operational labour costs to capital expenditure, resulting in the omission of these resources from the FTE count in AEMO's original AR6 proposal.

- A lack of clarity on employee numbers engaged in operational WEM activities, capital projects and business support functions, and how these fit with AEMO's organisational restructure.
- Inconsistency in the definitions of FTE categories between AEMO's original AR6 proposal and subsequent in-period submissions.

The ERA has identified discrepancies in AEMO's FTE numbers throughout the AR6 period. AEMO's original AR6 proposal included a provision for 34 additional FTE staff, increasing AEMO's WEM workforce to 135.2 FTEs by the end of the AR6 period. AEMO's FTE resources estimate, published alongside the AR6 proposal, forecasted that AEMO would require 81 FTEs in the WA department (staff working on the WEM and located in Western Australia) at the end of 2024/25 (the final year of the AR6 period) and 47.2 FTEs in WA support (staff working on the WEM but located outside of Western Australia). This is a total of 128.2 FTEs, which does not align with the 135.2 FTEs stated in the original AR6 proposal.²²

After assessing AEMO's original AR6 proposal and supporting documents, the ERA's AR6 final determination approved funding equivalent to approximately 23 new positions (11 less than the original AR6 proposal) increasing the total WEM FTEs to 124.3 by the end of AR6 period. At the time of the AR6 final determination, the ERA understood that this constituted AEMO's total WEM operational FTE requirement.

In contrast, AEMO's second in-period proposal forecasts 137 FTEs in the WA department at the end of AR6 period.²³ The 137 FTEs reported to the ERA is considerably higher than the 81 FTEs for the WA department presented in the initial AR6 proposal. At the same time, AEMO's second in-period submission stated that only two additional roles were added to WA department staffing levels from those included in the original AR6 submission.

The ERA sought clarifications on the difference in the FTE numbers presented in the original AR6 proposal and the second in-period proposal.

AEMO has explained that its AR6 proposal did not include all WEM FTEs.²⁴ AEMO only included the FTE numbers in the WA department and WA support that AEMO assumed could be costed to operational expenditure. In actuality, AEMO later identified that significant operational resources were incorrectly allocated to capital expenditure in the original AR6 proposal (further details are provided in section 4.1.2). This has resulted in a material underestimation of operational labour costs and FTE numbers required to operate the WEM. AEMO's public submission to the ERA's draft determination shows that it was aware of this operational labour allocation issue at the time it made its first in-period submission.²⁵

The ERA's expectation is that when AEMO became aware of the operational labour allocation issues, it would have provided details to the regulator, especially since it would have a significant impact on allowable revenue. However, this did not occur. AEMO did flag that it would need an increase in allowable revenue at the time of the first in-period submission, however the ERA was not informed of the magnitude or the reason for this adjustment. Upfront reporting between a regulated entity and the regulator is critical for the functioning of the WEM.

²² Australian Energy Market Operator, 2021, *FTE Resources Estimate – WA departments and WA support functions*, Table 3, p. 7, and Table 4, p. 26, ([online](#)).

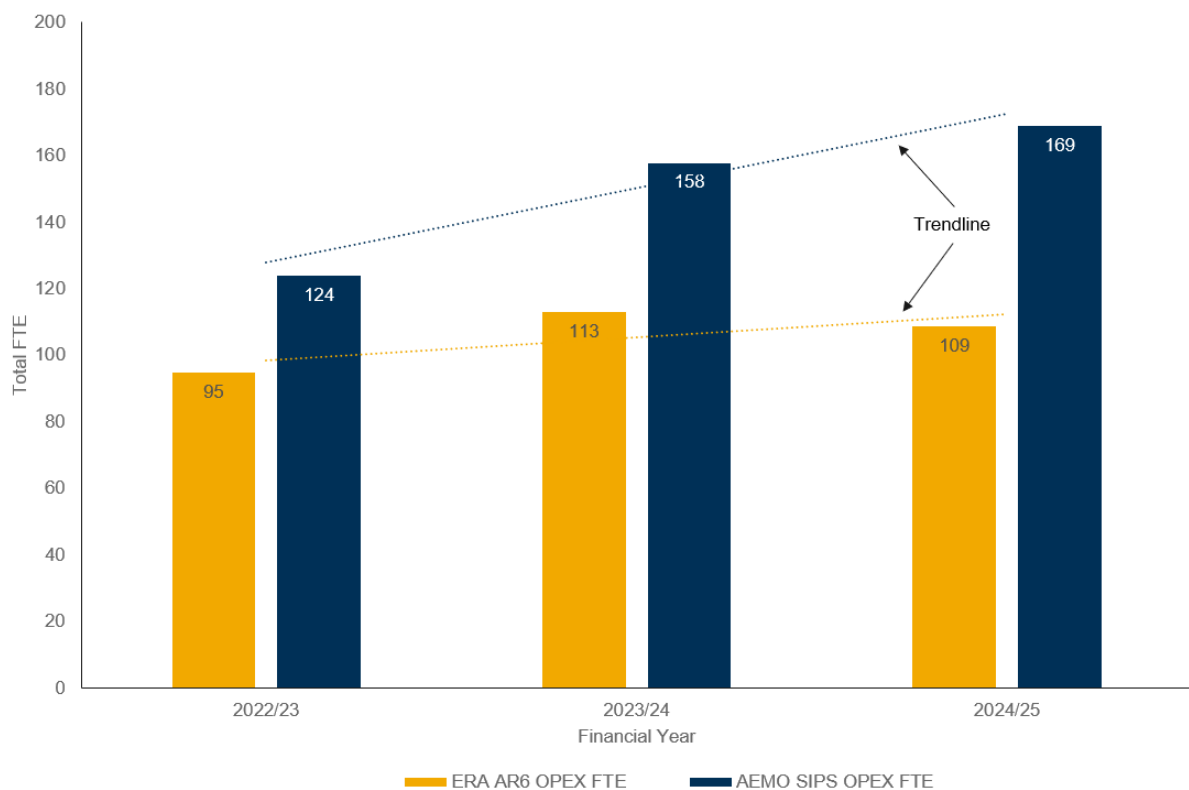
²³ Australian Energy Market Operator, 2024, *Adjustment to 2022/2025 Allowable Revenue and Forecast Capital Expenditure*, Figure 9, WA department FTE by function FY22 to FY25, p. 29, ([online](#)).

²⁴ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination*, ([online](#)).

²⁵ *Ibid*, p. 19, ([online](#)).

AEMO's response to the ERA's draft determination attempted to reconcile the difference between the ERA's expectations of how FTEs were going to evolve throughout the AR6 period and the most recent set of figures presented by AEMO.²⁶ While the figures presented by AEMO for the ERA's AR6 final determination still differ to those discussed above, AEMO's analysis provides an illustration of how AEMO's FTE numbers have evolved in disconnect with the ERA's expectations (Figure 5). The ERA's expectation of AEMO's labour requirements at AR6 (the yellow bars) differed substantially to what the ERA was presented with in AEMO's second in-period submission (the blue bars). The difference in expectations is highest by 2024/25, due to significantly different starting points in 2022/23 and the faster pace of labour growth over the AR6 period.

Figure 5: AEMO's operating expenditure (OPEX) for FTEs over the AR6 period between the original AR6 determination and the second in-period submission (SIPS)



Source: Australian Energy Market Operator, May 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, p. 15, ([online](#)).

AEMO's response to the ERA's draft determination also confirmed that the total WEM workforce, including labour under both operational expenditure and capital expenditure:

- was 178 FTEs at the beginning of AR6 period;
- is currently 207 FTEs; and,
- is forecasted to increase to 211.7 FTEs by the end of AR6 period.²⁷

²⁶ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination*, p. 15, ([online](#)).

²⁷ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, p. 15, ([online](#)).

This includes an increase in operational FTEs of 44.8 from 124 in 2022/23 to 168.8 (shown by the blue bars in Figure 5).²⁸ This growth in operational FTEs is considerably higher than the additional 23 FTEs of funding approved in the original AR6 final determination.

AEMO stated that the FTE numbers used in the second in-period proposal were based on AEMO's current workforce required to maintain safe operations of the WEM. A significant portion of the additional labour funding sought in this submission has already been incurred and if the full amount is not approved, AEMO claims it would not be able to continue operating the WEM (see section 1.3.1).²⁹

4.1.2 Re-allocation between capital and operating expenditure

As discussed above, AEMO did not include FTEs assumed to work predominantly on capital projects in its original FTE resources estimate. Later AEMO realised that its assumption about its FTE allocation to capital expenditure was incorrect on two accounts:

- AEMO assumed that most project activities performed by internal staff will be capitalised. In fact, under the accounting standards, a large proportion of these activities had to be expensed as operational expenditure as those activities, such as feasibility work, cannot be capitalised.
- AEMO allocated some corporate staff clearly performing business support and corporate activities to capital projects. AEMO was unable to provide a rationale for this misallocation but has since corrected this issue.

AEMO estimated that the amount of operational labour costs incorrectly forecast for capital expenditure in the AR6 final determination was \$12.8 million.³⁰ The ERA questioned AEMO's explanations on how it estimated this amount but has accepted in the final determination that AEMO's systems have a limited ability to provide a more detailed assessment.

The ERA sought additional explanation regarding the associated capital expenditure cost saving from this labour reallocation. AEMO confirmed that there was no saving as capital labour costs were also underestimated. The amount saved by the reallocation was absorbed through the first in-period submission that requested additional capital funding to deliver WEM Reform projects (see Figure 4).

4.1.3 AEMO's new operating structure and ongoing reform

After AEMO's original AR6 proposal funding was approved, it underwent an organisational restructure to "set the business to deliver the WEM Reform program, operate the market and power system under the new WEM arrangements and support reform and new energy transition".³¹ Although restructures generally result in maintaining or reducing personnel, AEMO's restructure led to it identifying the need for more labour to address "the emerging operational requirements of the new market and the [ongoing] pipeline of energy transition activities".³² Consequently, AEMO requested \$9.9 million to support its new operational structure and ongoing structural reform.

²⁸ Ibid.

²⁹ Ibid, p. 25.

³⁰ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination*, p. 20, ([online](#)).

³¹ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, p. 27, ([online](#)).

³² Ibid.

When the ERA made its draft determination, it was unable to reconcile AEMO's change in operational structure against the initial assertion that its WA department headcount had only increased by two new positions and therefore, the ERA did not approve this amount pending further explanation.

The ERA has now confirmed with AEMO that the overall WEM operational headcount (WA department and WA support personnel) has been increasing over the AR6 period, and is forecast to increase by 44.8 FTEs between 2022/23 and 2024/25. This increase includes new staff and FTEs omitted from the original AR6 proposal as they had been allocated to capital expenditure but were needed for operational activities instead.

Due to its system limitations, AEMO was not able to identify how many positions were new and how many were reallocated from capital expenditure. Instead AEMO provided a description of its new and expanded roles and responsibilities to justify an increase in FTE numbers.³³

AEMO estimated the additional labour costs associated with the increase in staff numbers to be \$9.9 million. AEMO also indicated that the estimated amount included residual labour costs which could not be allocated to any specific cost drivers. Again, the ERA questioned AEMO's explanations but has ultimately accepted that it is unable to provide more support for its estimation due to limitations in its systems and processes.

4.1.4 Non-capitalised project labour – new projects

AEMO's second in-period submission included \$4.3 million to fund non-capitalised labour components required to deliver new capital expenditure projects.³⁴ The ERA's draft determination allowed \$4.0 million after identifying that AEMO has previously been provided with funding for feasibility activities relating to five-minute settlement, which AEMO confirmed could be used for the metering system upgrade and cost allocation review.

During the consultation period, AEMO adjusted the amount requested for new projects to \$5.19 million to include contingency amounts for Project Eagle and WEM and SWIS Power System Modelling that were missed from the original proposal.³⁵ Both projects are delivered under operational expenditure and, as such, do not appear in the capital expenditure section of the determination.

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

| Project | AEMO second in-period proposal | ERA final 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 |

³³ Ibid, p. 17.

³⁴ Ibid, p. 20, ([online](#)).

³⁵ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination*, pp. 24-25, ([online](#)).

| | | | |
|--|-------------|-------------|--------------|
| P3128 WIC review | 0.2 | 0.2 | 0 |
| P3112 WEM and SWIS Power System Modelling (excl consultants) | 1.21 | 1.21 | 0 |
| P3111 Project Eagle | 3.18 | 3.18 | 0 |
| Total operating expenditure project labour cost | 5.19 | 4.89 | (0.3) |

Source: Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, p. 59, ([online](#)), Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, Section 2.3, pp. 24-25, ([online](#)) and ERA analysis.

4.1.5 External cost pressures

AEMO has requested \$2.7 million for labour market cost increases above the level forecasted at the time of the AR6 determination.³⁶

Based on the 2 per cent to 3.5 per cent increase specified in AEMO's second in-period submission, the ERA estimated that the additional labour costs would amount to around \$1.5 million and not the requested \$2.7 million over the remainder of the AR6 period.³⁷

In its response to the ERA draft determination, AEMO provided workings showing the requested amount was derived using different percentage increases to those stated in its second in-period submission.

Having reviewed the corrected information, the ERA is satisfied that the updated percentage rates are in line with the wage price index and AEMO's Enterprise Bargaining Agreement increases. The ERA approves the proposed additional amount to fund the labour cost increases due to external cost pressures.

4.1.6 AEMO capability uplift – labour component

Overtime costs

AEMO requested \$1 million for overtime costs, predominantly for control room operational staff.³⁸ The ERA rejected this \$1 million overtime component in the original AR6 final determination because overtime payments appeared to be accounted for in other elements of the labour costs. For this reason, the ERA did not approve overtime in the second in-period draft determination.

AEMO explained in its submission to the ERA draft determination that the overtime payments were specified in AEMO's Workplace Enterprise Agreement and in the relevant employment contracts. In addition, AEMO clarified that in the control room environment, it was not possible

³⁶ Australian Energy Market Operator, 2024, *Adjustment to 2022/2025 Allowable Revenue and Forecast Capital Expenditure*, p. 7, ([online](#)).

³⁷ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, pp. 21, ([online](#)).

³⁸ Australian Energy Market Operator, 2024, *Adjustment to 2022/2025 Allowable Revenue and Forecast Capital Expenditure*, p. 8, ([online](#)).

to eliminate overtime by employing additional staff and to do so would incur significant expense.³⁹

The ERA is now satisfied that the overtime payments are separate to those costs addressed in other labour amounts and approves this \$1 million increase in labour funding.

Corporate resource capabilities

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.⁴⁰ These upgrades are implemented by AEMO's head office with the costs allocated to the relevant functional areas based on head count.

The ERA approves this \$2.5 million as it is satisfied with AEMO's explanation for the need to improve its enterprise capabilities, that the proportion of the total costs allocated to the Western Australian office is reasonable.

4.1.7 ERA labour costs final determination

AEMO asserts that the proposed staffing levels are required to maintain the safety and security of WEM and SWIS operations (see section 1.3.1).

After reviewing AEMO's supporting documentation, the ERA could not confirm if all requested the labour funding met the WEM requirements of prudence, efficiency and being at the lowest sustainable cost. Equally, the ERA could not put consumers and WEM market participants at risk of AEMO not having, "sufficient resources to carry out all its functions under the WEM Rules".⁴¹ The functions which AEMO referred to as being at risk includes progressing the energy market reforms and other activities such as "procuring capacity, WEM surveillance, forecasting and planning".⁴²

The ERA's determination is to approve most of AEMO's proposed labour funding (see Table 7) to ensure that AEMO is adequately funded to maintain the safe operation of the WEM and to continue supporting and implementing the energy market reforms.

Table 7: AEMO proposed and ERA final determination on labour costs (\$ million)

| Operating cost category | AEMO second in-period proposal | ERA final determination | Variance |
|-------------------------|--------------------------------|-------------------------|----------|
| Labour costs | 33.99 | 33.69 | (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.

Note: The labour cost amount increased from the \$33.2 million requested in AEMO's second in-period submission to \$33.99 million due to a calculation error. The contingency amounts for Project Eagle and

³⁹ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, pp. 24-25, pp. 22-23 ([online](#)).

⁴⁰ Ibid, p. 20. The \$2.5 million is part of the \$3.5 million classified as 'AEMO capacity uplift – Labour component'.

⁴¹ Ibid, section 1.1, p. 9, ([online](#)).

⁴² Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination*, p. 26, ([online](#)).

the WEM and SWIS Power System Modelling projects were included in AEMO's appendices to its proposal but were not reflected in the total requested for operational project costs.

4.2 Accommodation

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.⁴³

ERA's review, findings and final determination

The ERA has approved the additional accommodation costs of \$1.2 million after receiving confirmation from AEMO that the higher lease depreciation expense will net off over future accounting periods. The overall lease cost, over the total lease period, will not increase because of the revaluation.

4.3 IT and telecommunications

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.

ERA's review, findings and final determination

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.

4.4 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.

ERA's review, findings and final determination

In the draft determination, the ERA approved the additional \$0.2 million to cover the external cost pressures. The ERA withheld the approval of the \$6.3 million additional consultancy costs until AEMO could demonstrate how efficiency was considered when engaging consultants and whether options to lower the costs were explored.

During the consultation period AEMO provided further detail to the ERA on proposed consultancy costs including description of AEMO's procurement policy.

⁴³ 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](#)).

The ERA is satisfied that the procurement policy, through approvals, governance and competitive quotes for larger purchases, provides a process conducive to efficient use of funds.

The breakdown of consultancy costs provided the ERA with a better understanding of the types of consultancy services AEMO plans to engage. A significant portion of 2024/25 consultancy expenses relate to non-capitalised projects including Project Eagle, cyber-security and enterprise resource planning system upgrades and management of WEM reform.

However, after receiving the additional supporting documentation, some concerns still remain in relation to the proposed consultancy costs:

- The additional documentation did not explain how AEMO determined the required amounts for each consultancy category.
- The breakdown showed that \$1.4 million project consultancy had been requested and approved under other cost categories and requested again under consultancy.
- To date, AEMO has used \$3.5 million of the \$4.3 million of consultancy costs allowed in AR6.⁴⁴ An additional \$7.1 million is forecast to be spent over the remaining 13 months of the AR6 period. This is a doubling of funding compared to the prior period.

Despite concerns about completeness of the supporting evidence, for reasons described in section 2.1 of this document, the ERA has determined to allow the requested amount less the identified duplicated consultant costs of \$1.4 million.

The total approved amount for supplies and services is \$5.1 million.

4.5 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.⁴⁵

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.

ERA's review, findings and final determination

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 will be 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

⁴⁴ Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, section 2.2, ([online](#)).

⁴⁵ 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.

appropriately to reflect the amount 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.

4.6 Borrowing

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's review, findings and final determination

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.

4.7 Adjustment for over/under recovery

AEMO proposed adjustment for over/under recovery

In the original AR6 determination, AEMO forecast 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.⁴⁶

ERA's review, findings and final determination

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

⁴⁶ Australian Energy Market Operator, 2023, *2023 WA Financial Report*, Table 2, p. 6, ([online](#)).

5. Detailed assessment of AEMO's request for additional forecast capital expenditure

The ERA approves \$37.9 million of AEMO's request for additional forecast capital expenditure (see Table 8). AEMO has provided further information, particularly on how project contingencies for the new capital projects are to be used to address the identified risks. These detailed explanations had not been provided at the time of the ERA's draft determination.

Table 8: AEMO proposed and ERA final determination on forecast capital expenditure (\$ million)

| Forecast capital expenditure | AEMO second in-period proposal | ERA final determination | Variance |
|--|--------------------------------|-------------------------|--------------|
| P3082 – RCM Review | 16.8 | 16.8 | 0 |
| P3108 – Metering System Upgrade and Cost Allocation review | 15.0 | 13.9 | (1.1) |
| P3099 – WEM DER Aggregator Participation | 6.6 | 6.6 | 0 |
| P3127 – DSR review | 0.2 | 0.2 | 0 |
| P3128 – WIC review | 0.4 | 0.4 | 0 |
| Total | 39.0 | 37.9 | (1.1) |

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.

Details on the funding for each capital expenditure project is contained in this chapter. All capital expenditure projects are new projects for which funding has not previously been approved.

Capital expenditure project contingencies

The ERA acknowledges that AEMO has consistently applied its contingency calculations across its capital expenditure projects. Since the ERA's draft determination, AEMO provided additional information on capital project contingencies that met the standard required under the funding guidelines.⁴⁷ The information gap was mostly around explaining how the contingency amount would be used to address the identified risk. This information had not been provided prior to the ERA's draft determination, and the ERA consequently did not approve these contingency amounts in the draft determination.

Based on the additional information, the ERA now approves most of the funding for capital project contingencies (see Table 9).

⁴⁷ Economic Regulation Authority, 2022, *Guideline to inform the Australian Energy Market Operator's funding proposal*, pp. 12-13, ([online](#)).

Table 9: Contingency amounts for capital expenditure projects in AEMO's second in-period submission (\$ million)

| Capital expenditure project | Contingency amount proposed | Contingency amount approved | Variance |
|------------------------------|-----------------------------|-----------------------------|--------------|
| DER Aggregator Participation | 0 | 0 | 0 |
| RCM review | 2.8 | 2.8 | 0 |
| DSR review | 0.02 | 0.02 | 0 |
| WIC review | 0.06 | 0.06 | 0 |
| Metering System Upgrade | 1.9 | 0.8 | (1.1) |
| Total | 4.78 | 3.68 | (1.1) |

Source: Australian Energy Market Operator, 2024, *Submission to the Economic Regulation Authority's Draft Determination: Second In-period Funding Proposal under the sixth Allowable Revenue Period*, ([online](#)).

5.1 Reserve Capacity Mechanism (RCM) review

AEMO is seeking, and the ERA has approved, \$16.8 million to fund the implementation of the RCM review, a new capital expenditure project starting in the AR6 period. This project will implement multiple RCM initiatives, including 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.^{48,49,50}

The ERA's draft determination approved the \$14.0 million for implementation of the RCM review project but not the project contingency amount which required further information. AEMO has confirmed, and EPWA supported in its submission on the draft determination, that the RCM review project must begin implementation during the AR6 period. The ERA is aware that delays in implementing changes to the RCM will delay capacity pricing signals in the WEM. This is not in the interests of consumers as delaying price signals delays the associated economic behaviour, which leads to less economically efficient outcomes for the WEM. This is particularly the case for the RCM as changes made today will only take effect in two years' time due to timing of the RCM's Reserve Capacity Cycle timetable. Ensuring AEMO is adequately funded to implement the RCM review reduces the timeliness risk arising from the implementation time lag so that reserve capacity investment price signals are not delayed.

⁴⁸ 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.

⁴⁹ 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](#)).

⁵⁰ The relevant level method is the method for allocating capacity credits to semi-scheduled facilities (i.e. intermittent generators).

The ERA approves this funding based on further information provided to justify the project contingency amounts and AEMO's need to be adequately funded to implement this important project (Table 10).

Table 10: AEMO's proposed and ERA's final determination on the RCM review project (\$ million)

| Item | AEMO second in-period proposal | ERA final determination | Variance |
|----------------|--------------------------------|-------------------------|----------|
| Implementation | 14.0 | 14.0 | 0 |
| Contingency | 2.8 | 2.8 | 0 |
| Total | 16.8 | 16.8 | 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.

5.2 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 submitted that because this project is in the planning stage, it cannot provide detailed information on the costs and timing for the execution of these system changes.

The cost allocation review is a separate project but affects similar systems to the metering system upgrade project. This project 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 \$15 million to cover the costs of implementing new metering system upgrades and the outcomes of the cost allocation review.

Changes from the draft determination

The ERA notes the importance of upgrading AEMO's metering systems and the criticality of this work in the context of other energy transition projects. This was supported through feedback from Western Power and Energy Policy WA in the consultation process who raised the potential significant flow on effects of delaying this project, impacting multiple other stakeholders. On this basis, the ERA has amended its draft determination to approve \$13.9 million. The reduction of contingency from \$1.9 million to \$0.8 million reflects updated contingency information provided to the ERA during the draft determination consultation process. This approval is on the expectation that AEMO will continue to refine its costs and scoping activities and that execution work will not commence until the necessary planning activities have been completed.

Table 11: AEMO proposed and ERA final determination on Metering system upgrade and cost allocation review project (\$ million)

| Item | AEMO second in-period proposal | ERA final determination | Variance |
|--------------|--------------------------------|-------------------------|--------------|
| Execution | 13.1 | 13.1 | 0 |
| Contingency | 1.9 | 0.8 | (1.1) |
| Total | 15.0 | 13.9 | (1.1) |

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.

5.3 Distributed Energy Resource (DER) aggregator participation

AEMO has requested, and the ERA has approved, \$15.0 million to fund the implementation of the DER aggregator participation project, a new capital expenditure project starting in the AR6 period. This project requires AEMO to set up systems and arrangements to enable DER aggregators to participate directly in the WEM, which is a part of the State Government's DER Roadmap. This includes setting up the systems and infrastructure to allow AEMO to be the Distribution Market Operator.

The ERA's draft determination rejected the stage 2 planning funding as it needed further justification on why this stage of the project had to be commenced prior to the end of the AR6 period. AEMO has further explained that by overlapping stage 2 planning with stage 1 implementation, it reduces rework and allows activities on both stages to be done in parallel rather than work on the systems in one stage and then re-open those same systems in the next stage of the project. The ERA agrees that this is a reasonable approach. Although the ERA has concerns that there remains uncertainty on stage 2 of this project, the ERA approves the funding based on the importance of this project in both the transition and encouraging distributed energy resources to participate in the WEM (Table 12). This project is a precursor to larger benefits in the WEM once the project comes into operation over AR7 and beyond.

Table 12: AEMO proposed and ERA final determination DER aggregator participation project (\$ million)

| Item | AEMO second in-period proposal | ERA final determination | Variance |
|--------------|--------------------------------|-------------------------|----------|
| Planning | 6.6 | 6.6 | 0 |
| Contingency | 0 | 0 | 0 |
| Total | 6.6 | 6.6 | 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.

5.4 Demand-Side Response (DSR) review

AEMO is seeking, and the ERA approves, \$0.19 million to fund the planning and feasibility of the DSR review project (Table 13). This is a new capital expenditure project that is commencing during the AR6 period. AEMO has stated that it:

Do[es] 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.⁵¹

The ERA has approved the feasibility funding under operating expenditure (see section 4.1.1). Although the ERA is concerned about the uncertainty of this project, the ERA approves the funding based on AEMO's need to be adequately funded to implement this capital expenditure project and its importance to manage the capacity constraints that the WEM is currently experiencing. The ERA acknowledges the overriding need for this project within the current capacity shortfall environment and that AEMO is dependent on other agencies to proceed with this project.

Table 13: AEMO proposed and ERA final determination DSR review project (\$ million)

| Item | AEMO second in-period proposal | ERA final determination | Variance |
|--------------|--------------------------------|-------------------------|----------|
| Planning | 0.17 | 0.17 | 0 |
| Contingency | 0.02 | 0.02 | 0 |
| Total | 0.19 | 0.19 | 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.

5.5 WEM Investment Certainty (WIC) review

AEMO is seeking, and the ERA approves, \$0.41 million to fund AEMO's planning of the WIC review project (Table 14). The WIC review is to implement the recommendations from the WIC Working Group, including measures to provide 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, prior to the end of the AR6 period. AEMO is seeking funding in anticipation of starting planning activities for the implementation of 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 4.1.1). Given the timelines to implement the WIC review, the ERA agrees that funding the planning stage for this project is needed so that these activities will be completed before the end of the AR6 period.

At the time of the ERA's draft determination, the ERA had not received information that justified the contingency part of AEMO's funding request. Further information has since been provided that satisfies this requirement.

⁵¹ Australian Energy Market Operator, 2024, *Adjustment to 2022-2025 Allowable Revenue and Forecast Capital Expenditure: AR6 second in-period submission*, p. 52, ([online](#)).

Table 14: AEMO’s proposed and ERA’s final determination WIC review project (\$ million)

| Item | AEMO second in-period proposal | ERA final determination | Variance |
|--------------|---------------------------------------|--------------------------------|-----------------|
| Planning | 0.35 | 0.35 | 0 |
| Contingency | 0.06 | 0.06 | 0 |
| Total | 0.41 | 0.41 | 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.

6. Challenges with the current regulatory regime

The current allowable revenue regulatory regime has a framework reflective of network regulation where a network service provider's past costs are a good indicator of its forward costs. Under such a framework, forward cost estimates are typically based on indexing past costs while incorporating any new costs. The network service operator is typically allowed to retain any cost savings over a limited period, which provides a strong incentive to seek out gains in efficiency.

The challenge in regulating AEMO within this regime is that it operates as a not-for-profit organisation with an expanding set of roles and responsibilities. These expanding roles and responsibilities are typically a result of the energy market reform agenda. While AEMO performs an ongoing essential service in operating the WEM and ensuring system security, its role has continually expanded over the course of the AR6 period with implementation of the new market and other ongoing reform priorities. In this context, AEMO is not incentivised in the same way as a typical profit-driven network service provider to seek out gains in efficiency. As the regulator, the ERA also faces difficulty in assessing what would be an efficient level of operational costs given the nature of AEMO's business and the pace of reforms to the electricity market to support decarbonisation.

While AEMO attempts to operate at the lowest sustainable cost, it must prioritise delivery of reform and transition activities to deadlines set in the WEM Rules and by the State Government and Energy Policy WA. As a result, AEMO is incentivised to prioritise the timely delivery and full scope of reform work, over limiting cost pressures. This trade-off between time and scope with costs appears to be the basis for this second in-period submission, and the implementation of the new WEM more broadly.

AEMO is seeking additional funding because it will exhaust most of its originally approved AR6 funding (\$142.3 million) by 30 June 2024. The fact that AEMO has spent most of its funding and needs to reclaim it from additional funding shows that the incentive-based regulatory framework is not suitable for making assessments of AEMO's funding requirements. Once funds have been spent, the benefit of conducting an *ex-post* assessment of the efficiency and prudence of the expenditure is limited as the regime's ability to incentivise better performance is constrained by the need for AEMO to recover its forward-looking costs. Additionally, due to the timelines imposed by the WEM Rules, AEMO could not have asked for an operating expenditure adjustment when it made its first in-period submission. This is because the WEM Rules require AEMO to apply for an increase to its allowable revenue before 31 March each financial year, but AEMO's first in-period submission was not provided until 26 April 2023, after the deadline for adjustments to the market fees.⁵²

In addition to the issues outlined above, the ERA is reliant on the quality and depth of the information provided by AEMO to make its determination. The ERA experienced considerable challenges receiving a clear explanation from AEMO regarding increases to operational labour costs between the original AR6 and the second in-period submission. The supplementary information provided since the draft determination has demonstrated gaps in AEMO's processes and systems, often making justifications incomplete and difficult for the ERA reach a clear understanding of AEMO's position and need for additional funds.

The ERA is concerned that the regulatory framework is not leading to outcomes that are beneficial to the WEM, especially given the resourcing required by AEMO and the ERA to bridge information gaps and undertake the ongoing analysis that is associated with the

⁵² Wholesale Electricity Market Rules (WA), 8 June 2024, Rule 2.22A.16, ([online](#)).

allowable revenue regulatory regime. On this basis, the ERA strongly supports a replacement of the existing regulatory regime with a more workable arrangement.

6.1 Energy Policy WA review of the allowable revenue regime

On 12 June 2024, Energy Policy WA released draft WEM Amending Rules for consultation that proposes extending the date AEMO is required to submit its AR7 proposal to the ERA from 31 October 2024 to 31 January 2025. This will considerably decrease the time that the ERA will have to assess an AEMO AR7 allowable revenue proposal.

On the other hand, this amendment will provide EPWA with time to consider amending the allowable revenue regime and provide AEMO with adequate time to respond.⁵³

⁵³ Energy Policy WA, 'Exposure Draft of the Miscellaneous Amendments No.3 WEM Amending Rules', ([online](#)) [accessed 11 June 2024].

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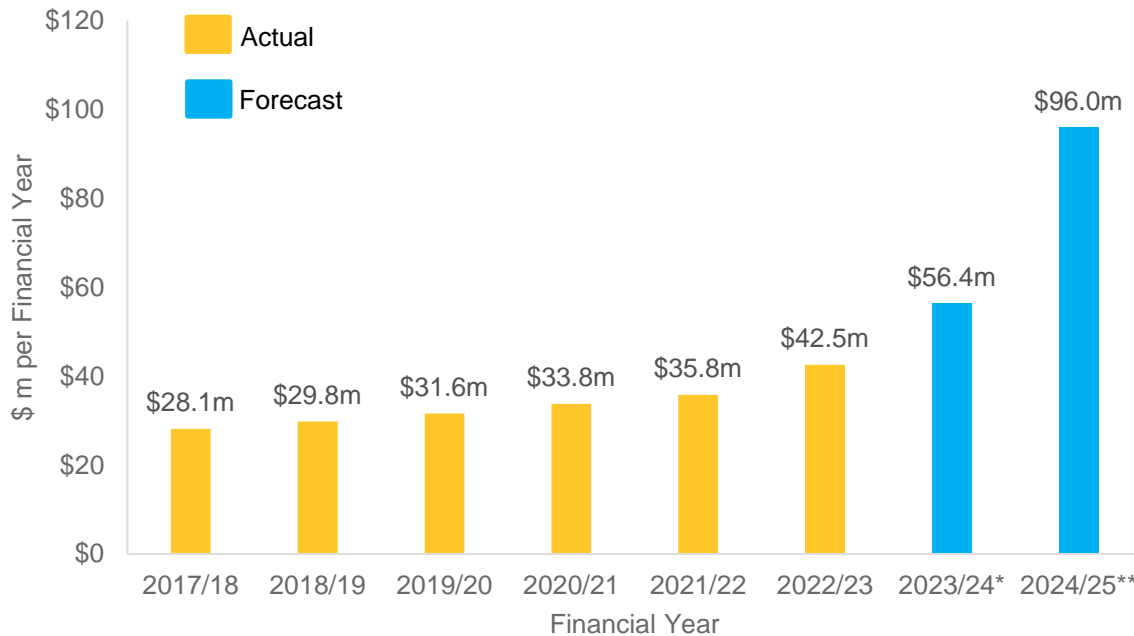
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Appendix 3 Chart and details on AEMO's costs to operate the WEM

Figure 6: AEMO WEM Operating Costs



Source: AEMO WA Budget and Fees documents, AEMO's AR6 proposals.⁵⁴

Note: Financial years 2017/18 to 2022/23 are from AEMO's budget figures.⁵⁵

* - 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.⁵⁶

** - 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.⁵⁷

⁵⁴ 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].

⁵⁵ Ibid.

⁵⁶ 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].

⁵⁷ 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 Submissions received in response to ERA draft determination

The ERA received six submissions in response to the draft determination, with a summary of each submission detailed in Table 15.

Feedback from these submissions is presented in the main body of the report against the relevant topics.

Table 15: Summary of stakeholder feedback in response to ERA’s draft decision

| Stakeholder | Feedback |
|---|--|
| Chamber of Minerals and Energy of Western Australia | <ul style="list-style-type: none"> Agrees with the ERA rejecting AEMO’s funding that is not justified or with costs that are highly uncertain. Recommends that the WA Government release a draft master transmission plan for the SWIS by mid-2024 to assist the industry with the energy transition. Has significant concern on the trajectory of WEM electricity costs given rising costs in the Real-Time Market, the Essential System Services markets, and with the large increase in market fees. Supports the ERA’s approach to evaluating AEMO’s costs for the Reserve Capacity Mechanism review and Demand-Side Response review. The ERA’s draft determination would still significantly increase AEMO’s allowable revenue and forecast capital expenditure. |
| Collgar Renewables | <ul style="list-style-type: none"> Concerned that AEMO has continually and substantially underestimated WEM Reform costs. Recommends benchmarking against international jurisdictions for the next allowable revenue review. Agrees with the ERA only approving justified, necessary and efficient expenditure. Suggests a comprehensive review of the cost-benefits of reforms implemented to date, to ensure future reforms are necessary and provide value for money. |
| Energy Policy WA | <ul style="list-style-type: none"> Did not provide comment on the ERA’s specific evaluation of AEMO’s costs but highlighted the input AEMO provides to assist the State Government deliver on its energy sector reforms. AEMO is required to provide ongoing and timely advice to Energy Policy WA. Highlighted that there are risks if AEMO is unable to deliver on projects in a timely manner and that it is important that AEMO be adequately funded to effectively facilitate and deliver on projects in the long-term interests of consumers. |
| Newmont Mining | <ul style="list-style-type: none"> Concerned that the upward trajectory of market fees and AEMO’s further funding request is a serious and unsustainable impost on market participants and electricity customers. Market participants are exposed to substantial increases in market fees for uncertain benefits. Highlights that 81% of energy is transacted bi-laterally yet AEMO’s operating costs and capital expenditure are increasing significantly. |

| Stakeholder | Feedback |
|---------------|--|
| | <ul style="list-style-type: none"> The ERA has not subjected AEMO's revenue requests to a value-for-money analysis, cost-benefit analysis or efficient execution benchmarking. Suggests AEMO be subject to performance indicator measures or service standard benchmarks that are transparent rather than the ERA approving revenue requests in isolation. Suggests each capital expenditure program of work be subject to a business case review and cost-benefit analysis to determine that it will provide value to market participants and electricity customers. |
| Synergy | <ul style="list-style-type: none"> Acknowledged that further WEM fee increases are likely and there is no visibility on when these fees will stabilise and reduce. Advocates for AEMO to recover market fees over a glide path approach to avoid steep WEM fee shock. The ERA needs to consider the efficiency of AEMO's labour engagement and give due consideration on the market impact if AEMO is under resourced to perform its functions. Synergy notes that AEMO's capital project development for 2024/25 is ambitious and advocates the ERA confirming with AEMO on the deliverability of these projects by the end of the AR6 period. Synergy supports the ERA's determination on the Metering System Upgrade and Cost Allocation review capital project and that a decision can be made once the project is more certain. Suggests that the ERA analyse whether previously approved allowable revenue can be used to offset AEMO's second in-period funding request. Suggests benchmarking could be done for AR7. There is a need to review the Allowable Revenue regime in the WEM Rules given its incompatibility with the uncertainty and rapid-pace of the energy transition. The ERA needs to consider the effectiveness of AEMO's past information technology investments when considering AEMO's future information technology investments. AEMO's costs must be prudent and efficient and the benefits be transparent and realised. |
| Western Power | <ul style="list-style-type: none"> Supports ensuring that AEMO has adequate funding to manage critical operations, complete previous WEM reform activities and deliver against the key reforms related to the DER Roadmap and 5-minute settlement. Delays to the DER Roadmap and 5-minute settlement will have industry wide impacts. |

Appendix 5 AEMO's functions under the WEM Rules

*WEM Rules*⁵⁸

- 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

⁵⁸ Wholesale Electricity Market Rules (WA), 8 June 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 6 AEMO's obligations under the WEM Rules

*WEM Rule*⁵⁹

- 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.

⁵⁹ Wholesale Electricity Market Rules (WA), 8 June 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 7 ERA's obligations under the WEM Rules

WEM Rules⁶⁰

- 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.

⁶⁰Wholesale Electricity Market Rules (WA), 8 June 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.