AEMO Allowable revenue and forecast capital expenditure (AR6)

July 2022 to June 2025

Presented to WA Electricity Consultative Forum

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Timeline

29 October 2021
17 December 2021
8 February 2022
by 31 March 2022
by 31 May 2022
ERA guidelines published
AEMO proposal submission
ERA Issues Paper
ERA Draft Determination
ERA Final Determination
Consultation period
Consultation period

Resources

- AR6 – AEMO proposal (Dec 2021)
- ERA Draft Determination
- AR6 – AEMO revised proposal (Apr 2022)
- AR6 Proposal – RBP report on AEMO Labour Uplift
- AR6 Proposal – WA Labour Supporting Information
- AEMO WA IT Roadmap 2022 - 2025

AR5 Overview – OPEX (preliminary)

Current AR5 OPEX spend is forecast to be $5.8m lower (5.8%) at $94.3m

- Savings attributed to reduction in consulting and travel requirements and negotiation of licensing arrangements.

AR5 Overview – CAPEX (preliminary)

AR5 CAPEX spend is forecast to be $3.5m favourable (4.3%)

- Some projects continuing from AR4 period required more funding then forecast in AR5. This required a reassessment of project priorities resulting in reallocation of CAPEX funds from lower priority projects.

AR6 Overview – 2022-23 to 2024-25

	Dec21 Proposal	Apr22 Revision
WEM OPEX	$156.2M	$152.4M (↓$3.8M)
WEM CAPEX	$69.4M	$72M (↑$2.6M)
Total WEM	**$225.6M**	**$224.4M**

- AEMO recognises that the AR6 cost forecast represents a material increase in costs that are passed onto market participants and customers. We have revised the forecast since the December 2021 proposal for considerations of feedback from ERA and Market Participants and to include updated information. The revisions include:
  - OPEX reductions to Labour, IT & Telecommunications and Supplies and Services are slightly offset by a forecast increase to borrowing costs
  - CAPEX reductions to scope of WA DER, Lifecycle, and WEM Rule Change projects offset by transfer of costs from AR5 to AR6 for WEM Reform and WA DER

Operational Labour

	AR5	Dec21 Submission	Apr22 Revision
Function	Current	AR6 (FY25)	AR6 (FY25)
Market Operations	10.0	16.0	15.1 (↓0.9)
Reserve Capacity	8.0	12.0	10.0 (↓2.0)
Market Development	1.2	4.0	4.0
Power System Market Planning	16.2	25.0	24.5 (↓0.5)
Power System Operation	15.5	17.8	17.8
Operations, Governance and Integration	8.0	9.1	8.0 (↓1.1)
Digital & Technology	22.9	31.0	31.0
Business Services and Support	14.4	16.2	16.2
Total	**96.2**	**131.1**	**126.6** (↓5.5)

ERA and Market Participants have indicated the increase in operation labour is concerning. AEMO maintains the increase is required to maintain the current level of operational risk resulting from the increased complexity of the reforms and changing power system dynamics. However, following a review by an independent consultant (RBP) some additional efficiencies have been identified resulting in revision to the labour requested in the revised proposal.

Operational Labour – Team size

Market Operations*
AR6 Final Year FTE - 15.1 (↑5.1)

- Complexity and frequency of activities required to be supported increases with new market arrangements following WEM Reform go-live.
- Additional effort required to support Real-Time Market clearing and pricing and weekly settlement.
- Reduction since Dec21 proposal in recognition to efficiencies in settlement/prudential, pricing analysis and support for market development activities.

Reserve Capacity
AR6 Final Year FTE - 10 (↑2.0)

- Volume and complexity of activities associated with new arrangements in the RCM have increased in CY2021 and CY2022.
- Additional effort required to support CRC assessment and NAQ.
- Reduction since Dec21 proposal in recognition of efficiencies in process management and support for market development activities.

Market Development
AR6 Final Year FTE - 4 (↑3.8)

- Volume of change within the WA Governments ETS stage 2 and future market evolution activities significantly more than within previous periods.
- Increased effort to support WEM procedures and rule changes after go-live of WEM Reform.
- No change since Dec21 proposal. Reflects a 'return' of some resources currently working on WEM Reform (CAPEX), not new resources.

* Denotes team operates a shift pattern including 24/7, extended hours, or weekend arrangements

Operational Labour – Team size

Power System Market Planning* AR6 Final Year FTE - 24.5 (↑8.3)	• Operational challenges driven by increasing variability in energy system characteristics during AR6 period driven by technology change and consumer trends. • Additional effort required to uplift operational forecasting, modelling and planning capabilities. • Reduction since Dec21 proposal for consideration of improvements in the GPS and constraints management processes.
Power System Operation* AR6 Final Year FTE – 17.8 (↑2.3)	• Complex challenges in maintaining a secure and reliable operating environment in a challenging power system. • Increased effort to support SCED and changing power system dynamics. • No change since Dec21 proposal.
Operations, Governance and Integration* AR6 Final Year FTE – 8 (No change)	• Operational challenges driven by change in process resulting from reforms remain unclear and will be managed within the determined operational budget or uncertainty mechanisms. • Reduction since Dec21 proposal to remove the additional 1.1 previously considered.

* Denotes team operates a shift pattern including 24/7, extended hours, or weekend arrangements

Operational Labour – Team size

Digital & Technology*
AR6 Final Year FTE - 31 (↑8.1)

- Growth in systems, processes and data management over the period to support new systems and increase of cyber threats to critical infrastructure.
- Additional effort required accurately reflect WA share of cyber capability and to support new or modified systems for market participation.
- Revision since December 2021 proposal to increase the WA share of cyber contribution in the first 2 years (3rd year unchanged).

Business Services and Support
AR6 Final Year FTE – 14.4 (↑1.8)

- Growth in people and processes requires contribution of support for training, modelling, and strategy from wider AEMO.
- Increased effort to support WA services and Market Participants.
- No change since December 2021 proposal.

* Denotes team operates a shift pattern including 24/7, extended hours, or weekend arrangements

CAPEX Projects

	AR6 proposal (Dec 21)	ERA draft determination	AR6 Revised proposal	
	AR6 total	AR6 total	AR6 total	Variance to Dec 21 ($)
Facilitating the Energy Transformation Strategy				
WEM Reform	44.6	37.2	50.8	↑ 6.20 M
WA DER	9.4	4.2	6.5	↓ 2.90 M
WEM sustaining capex				
Capability uplift	1.3	0.9	1.3	0.00 M
Lifecycle	7.7	5.9	6.9	↓ 0.80 M
WEM Rule changes	1	0.3	0.3	↓ 0.70 M
Energy management system	1.4	1.8	1.4	0.00 M
Cyber	3	1.3	3.1	↑ 0.10 M
Operational forecasting	1.1	0.1	1.2	↑ 0.10 M
Infrastructure	0.2	0.2	0.2	0.00 M
Total capex	69.4	52	72	↑ 2.60 M

- Revisions to the WEM Reform forecast in the 6 months since the AR6 proposal has seen changes to project schedules, scope and cost.
  - Replanning of delivery within projects has moved forecast spend in AR5 into the AR6 period.
  - Further clarity around rules, project scope, and implementation requirements has required some project costs to increase or decrease as necessary using or releasing available contingency.
  - Total WEM Reform Program spend is unchanged $92M
- The WA DER Program has seen delays drive its changes in forecast
  - Delays of approximately 6 months to Project Symphony go-live sees a shift of $1.6M from AR5 to AR6
  - Clarity of scope for the Market Visibility and DER Data Access & Management projects has not matured sufficiently and AEMO accepts an in-period submission may be more applicable.
- Minor change to WEM Sustaining CAPEX projects:
  - Lifecycle projects – revision to cyber testing approach
  - WEM Rule change projects – acceptance of ambiguity with expected rule change projects in FY24/25 to be managed through available uncertainty mechanisms.

Questions and discussion