

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

# embrace future generations.

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

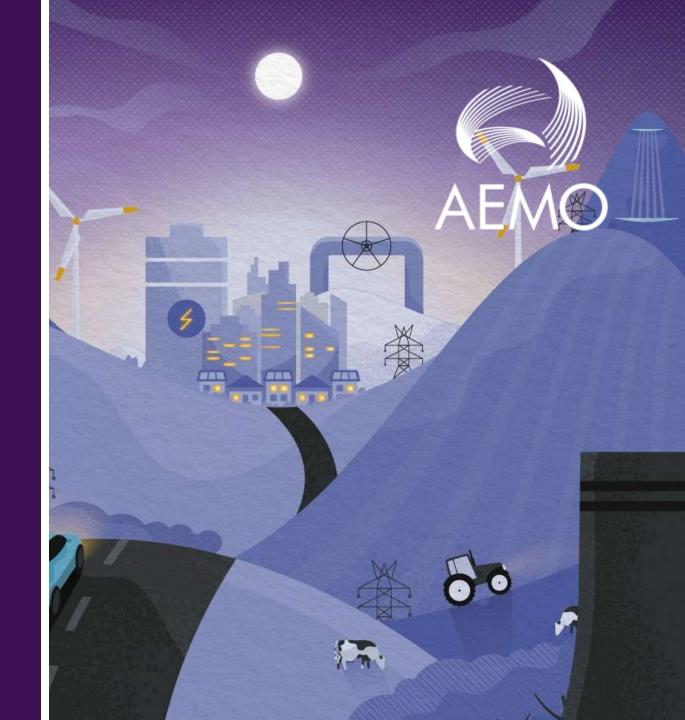
AEMO is proud to have delivered its first Reconciliation Action Plan in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation - a collaborative endeavour that honours First Nations cultures,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



# How to interact today

Head to <a href="www.Sli.do">www.Sli.do</a> and enter #AEMO to ask a question





# Agenda



01

11:05-11:20

FY24 Business performance

**Daniel Westerman CEO** 

02

11:20-11:30

FY24 Financial performance

Vanessa Hannan EGM Finance and Governance 03

11:30-11:35

**FY25 Priorities** 

**Daniel Westerman CEO** 

04

11:35-11:45

Questions and answers

Rebecca Irwin EGM Government and Stakeholder

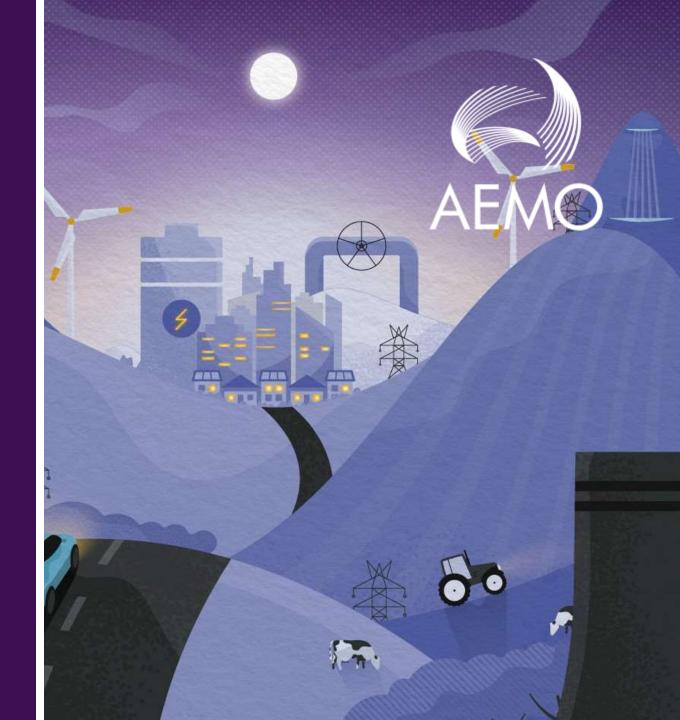
#### **Disclaimer**

This presentation contains general information about AEMO's activities as at the date of the presentation, which is in summary form and does not purport to be complete. This presentation should be read in conjunction with AEMO's annual report and budget and fees.

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# FY24 AEMO business performance

**Daniel Westerman**Chief Executive Officer

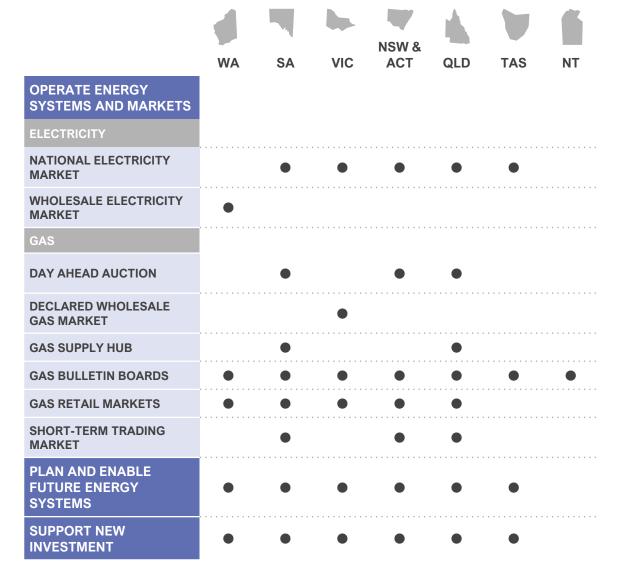


# **AEMO** at a glance

#### Our operating footprint



- Member-based, not-for-profit.
- 60% government, 40% industry members.
- Activities directed by National Electricity and Gas Law and Rules, jurisdictional laws and regulations.
- Funded primarily by participant fees, some funding from governments for specific activities.
- ~1500 people working around the country.



### Our executive team





**Daniel Westerman** CEO



Michael Gatt Operations



Nicola Falcon Western Australia (Interim)



**Merryn York** System Design



Violette Mouchaileh Reform Delivery



Nevenka Codevelle AEMO Services



Vanessa Hannan Finance & Governance



Rebecca Irwin
Government &
Stakeholder



Gordon Dunsford
Digital



**Glenn Jackson**People & Culture

# Our responsibilities today





**Operate energy systems** 



**Operate energy markets** 



Plan and enable future energy systems



Support new investment

# ... in a way that ensures:

- security
- reliability
- cost-effectiveness
- jurisdictional emissions targets

# Our responsibilities have evolved with the energy transition

# AEMO

#### **FY24**

- Delivered new WEM.
- Appointed to support Commonwealth's Capacity Investment Scheme (CIS).
- Transmission Company Victoria Pty Ltd established to deliver early works for VNI West.
- ISP significantly expanded by energy ministers.
- Planned stage two of East Coast Gas Markets reforms.
- Ongoing digital uplift of digital operational systems.
- · Accelerated cyber security uplift.
- Helped prepare *Consumer Energy Resources (CER)* roadmap and progress CER data exchange program.
- Delivered Integrating Energy Storage Solutions (IESS) reform.
- Implemented new Very Fast Frequency Control Ancillary Services markets.
- Published first *Enhanced Locational Information* report.
- Emissions requirement added to the National Energy Objectives.

#### **FY22**

- 5-minute settlements introduced to the NEM.
- Established AEMO Services to support investment in renewables, starting with NSW.
- Minimum Distributed Energy Resources (DER) technical standards established.
- Engineering Roadmap to 100% Renewables commenced.

- First stage of East Coast Gas Markets reforms implemented.
- Supported design of the Commonwealth's Capacity Investment Scheme (CIS).

**FY23** 

- Progressed the Connections Reform Initiative.
- Revised system strength framework and access standards.
- · NEM Reform program commenced.

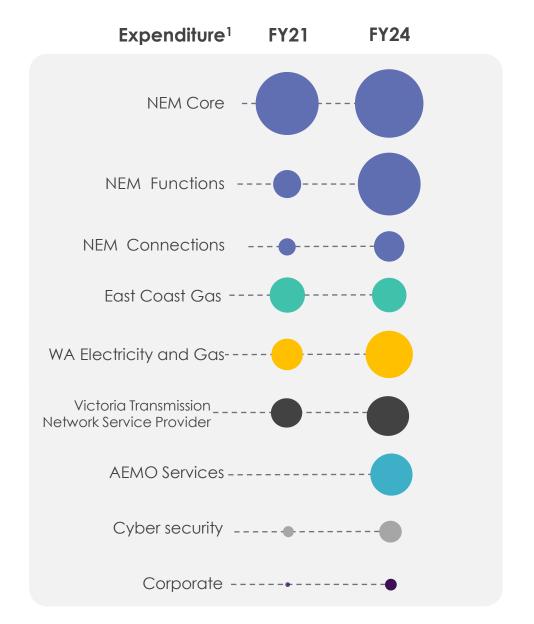
#### ...while we work within an increasingly complex operating environment

- Instantaneous renewables contribution high (NEM): 61.9%
- Tight gas supply on the east coast, planned and unplanned outages of coal-fired generation and a cold snap in southern states resulted in suspension of the NFM.
- Instantaneous renewables contribution high (NEM): 68.7%.
- SA wind and solar generation exceeded local demand for 10 days.
- SA islanding ran at 91.45% renewable generation.

- Instantaneous renewables contribution high (NEM): 72.1%
- All-time low operational demand in SA (-26 MW), Victoria (1.5 MW), NSW (3.7 MW) and QLD (3.1 MW).
- All-time high operational demand in QLD: 11+ GW
- 7/10 all-time peak demands in WA.
- Major storms impacted energy infrastructure in Victoria.
- Queensland gas pipeline rupture impacted gas supply.

## New responsibilities are changing the shape of AEMO





FY21 FY24 EXPENDITURE



#### FUNDING<sup>1</sup>



#### **TOTAL BORROWINGS**



#### PEOPLE<sup>2</sup>



- 1. Real \$ FY24
- 2. Permanent and fixed term
- 3. Excludes Vic TNSP segment

# Our strategic corporate plan



# What's in our strategic corporate plan

- AEMO's strategic priorities and outcomes.
- AEMO's role.
- Major initiatives by strategic priority.
- Delivering our budget.
- Governing our organisation.

#### **Purpose**

To ensure safe, reliable and affordable energy and enable the energy transition for the benefit of all Australians.

#### Vision

Enable net zero.

#### Strategic priorities



Operating today's systems and markets



Navigating the energy future



Engaging our stakeholders



Evolving the way we work

#### **Values**

**Character**Be our best

**Connection**Better together

**Commitment**Make it happen

## FY24 at a glance

We recorded strong performance against all key measures and fully delivered 51 out of 62 of our corporate plan initiatives

Ini	tiatives delivered against our priorities	Fully delivered	Partly delivered
	Operating today's systems and markets	12	2
	Navigating the energy future	17	5
	Engaging our stakeholders	8	2
	Evolving the way we work	14	2



Maintained energy system security and reliability



Delivered 17/18 high priority regulatory reform projects on time, to scope and to budget



Positive employee engagement score: 73%



No loss of system and/or market suspension due to preventable cyber incidents



Started delivering the pilot tenders for Capacity Investment Scheme



Kept our people safe, with an emphasis on psychological safety in the workplace



Achieved all material prudential compliance obligations



Delivered market reform in WA



Achieved operating expenditure: \$7m favourable



Managed reliability in challenging conditions - record low (-26 MW) and high (11,005 MW) demand



Produced high quality publications including the ISP, ESOOs, GSOOs, GenCost



On track to resolve NEM Core accumulated deficit in FY25



Planned for enhanced cyber security



Stakeholder trust and confidence: 69.1%, up 5.6% on last year



Reached our target of a minimum 40% women in the workforce earlier than anticipated



Approved 12GW of NEM connections and commissioned the first WEM battery



Launched AEMO On Air podcast to improve accessibility of market insights



Published our 'Reflect' Reconciliation Action Plan



## 1: Operating today's systems and markets

#### **Highlights**

- **Delivered core responsibilities** in system and market operations in accordance with rules and regulations in an increasingly complex environment.
- Integrated two new very fast frequency control ancillary service markets in the NEM to balance frequency and maintain system security.
- Commenced operating with new capabilities and markets, following the launch of the Wholesale Electricity Market reforms on 1 October 2023.
- Effectively managed electricity supply through new low (-26MW) and high (11,005MW) demand records, lack of reserve conditions and record renewable energy contributions (71.3%).
- Extensive summer preparation, including accelerating connections of new generators.
- Enhanced operating technology, improved visibility of real-time operations data for industry, improved forecasting to better inform market conditions, enabled gas reforms and improved market management capability, and more.
- Collaborated with industry partners to respond to major system events, including a major transmission event in Victoria and a major gas supply incident in Queensland.
- Enhanced AEMO's cyber security posture and contributed to energy industry cyber maturity and resilience, through our work with governments, industry and critical infrastructure providers.
- Collaborated with system operators globally to share and adopt best practices.

#### **Performance**

Measure		Target	Actual
	Operate within technical limits	99.9%	>99.9%
System	Preventable load shedding^, gas system pressure breaches	0	0
security	Loss of system/market suspensions due to preventable cyber incidents	0	0
	Operational forecast accuracy	80%	95%
Energy reliability	No region-wide loss of supply	0	0
Market management	Material prudential supervision compliance obligations met	0	0
-	Market settlements issued and settled on time	99.9%	99.2- 100%*

<sup>^</sup> One operational incident required load shedding to maintain system security. In Victoria on 13 February 2024,
AEMO instructed AusNet to shed 300 MW for 50 minutes, due to damage to the grid from a catastrophic storm.

\* 99.2% for WEM, 100% for NEM. 99.2% represents a minor delay in the settlement run in Nov 2023, no material impact to market settlements occurred.



### 2: Navigating the energy future

#### **Highlights**

- Delivered the **2024** *Integrated System Plan*, a roadmap for the transition of the NEM to meet future energy needs and enable a net zero economy by 2050.
- Supported investment and decision making by publishing the **NEM and WEM gas and electricity statements of opportunity**, Victorian Gas Planning Report.
- Major reforms implemented to WA's electricity market to enable the energy transition, the biggest change to the WEM since its inception in 2006.
- Delivered on **key NEM and SWIS Engineering Roadmap priority actions** to support grid operation of up to 100% renewables at times.
- Engaged with jurisdictions and market bodies to **deliver key market reforms**, **roadmaps and strategies** in the NEM.
- **Delivered the Integrating Energy Storage Systems project** to better integrate batteries into the NEM, simplification of registration and new settlement calculations.
- **Progressed 56 new connection applications** (12 GW in generation and storage capacity) and collaborated to reduce future connection-to-commissioning timeframes.
- Supported government with administering the Capacity Investment Scheme.
- Worked closely with governments and industry to inform development and delivery
  of the National CER Roadmap, and actively collaborated with industry on a range of
  projects to progress CER integration and coordination.

#### **Performance**

Measure		Target	Actual
Deliver priority regulatory reform projects delivered to scope, on time and to budget	Initiatives delivered	8	9
Deliver priority initiatives to prepare for 100% instantaneous renewable penetration, at times, by 2025	Initiatives delivered	14	18
Improve connections process, transparency and satisfaction	Connections initiatives delivered	75%	75%
Effectively deliver jurisdictional support services	Agreed outcomes delivered	100%	100%
Effectively deliver AEMO's Victorian declared network and National Electricity (Victoria) Act 2005 functions	Agreed outcomes delivered	85%	90%

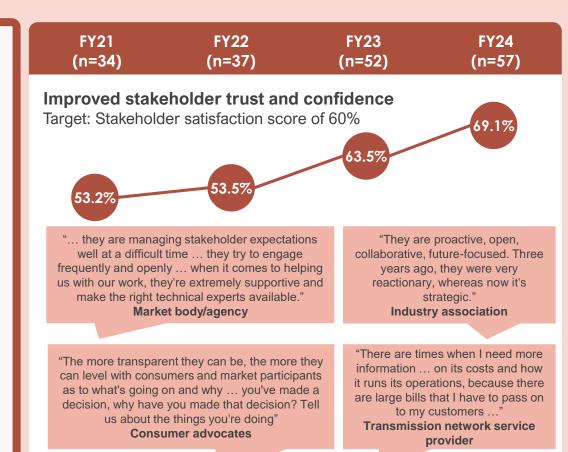


### 3: Engaging our stakeholders

#### **Highlights**

- Improved stakeholders' trust and confidence in AEMO, evidenced through our annual stakeholder survey.
- Improved transparency in our annual budget and fees processes and various consultative forums across the WEM, NEM and Gas.
- Engaged 2,100 stakeholders to deliver the 2024 Integrated System Plan.
- Collaborated with stakeholders on key projects to progress the NEM Reform Implementation Roadmap.
- Engaged widely and deeply with local landholders, communities, traditional owners and other groups as part of the VNI West transmission project early works.
- Launched stakeholder engagement principles our commitments to stakeholders when engaging with AEMO.
- Built greater awareness for the energy transition through launching a new podcast series and delivering 43 Energy Education courses.
- Engaged through our Advisory Council on Social Licence to inform social licence considerations in the ISP and our position on social licence reforms and initiatives.
- Provided regular briefings and worked closely with governments and industry to deliver operational readiness programs.

#### **Performance**





### 4: Evolving the way we work

#### **Highlights**

- Fostered a collaborative, high-performing culture with enhanced professional development, including through targeted leadership development programs and specialised career workshops.
- Reached our target of a minimum 40% women in the workforce earlier than anticipated.
- Championed diversity, equity and inclusion, becoming an Equal by 30 signatory, participating in Champions of Change, and advancing accessibility policies and plans.
- · Launched our inaugural Reflect Reconciliation Action Plan.
- **Delivered our Future State Architecture strategy** to modernise our systems, create economies of scale and improve cyber security.
- Matured and evolved our risk management practices and culture, including through a more consistent set of tools and practices.
- **Improved program management practices** through the Enterprise Portfolio Office, including how we allocate capital, engage stakeholders, govern investment, and work consistently across the business.
- Matured our financial management capabilities, through improved procurement practices, portfolio management and project governance.

#### **Performance**

Measure		Target	Actual
Employee engagement	Engagement score	70%	73%
Health and safety performance	Maintain health and safety performance	✓	✓
Achieve FY24 expenditure budget (net of recoveries)	Deliver within budget	✓	<b>~</b>
Deliver AEMO programs and projects in accordance with Future State Architecture policy	Compliance	95%	99.15%
Achieve all material legal and reporting obligations	Compliance	100%	<b>100</b> %

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# Delivering financial discipline



- Enhanced financial transparency through the Finance Consultation Committee
- AEMO's financial principles are applied to ensure financial discipline
- Suitable funding sources are sought out for new functions

#### **AEMO's financial principles**



Efficient and cost-effective delivery



Balanced and sustainable cost recovery



Ringfenced funding arrangements



Funding pathways for new investment



Low tolerance for funding risk on contracted activities



Debt-to-assets ratio <100%



Liquidity ratio >50%



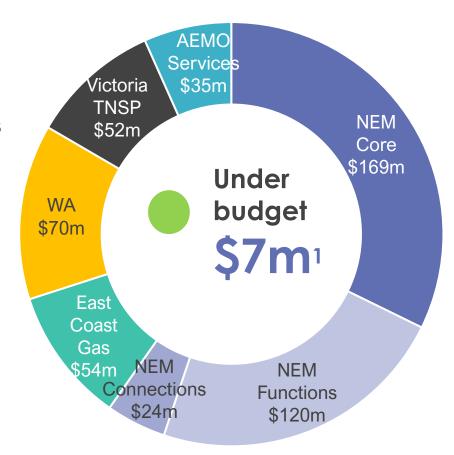
Budget to participants in a timely way

# FY24 highlights



- Favourable to budget operating expenses, despite increased market complexity and undertaking new roles and responsibilities to help navigate the energy transition.
- Productivity initiatives implemented to reduce expenditure, including workforce management, reductions in consulting costs and initiatives to reduce digital vendor costs.
- On track to resolve the historic NEM Core accumulated deficit in FY25.
- Delivered \$167m of capital investment including the go live of the new WEM market in October 2023 and IESS in June 2024.
- Aa2 stable credit rating leveraged for inaugural bond issuance \$300m A\$MTN
- Debt/asset ratio of 91% and liquidity ratio of 114%, better than the parameters set out in AEMO's financial principles

#### **FY24** operating costs



# **Business segments**

**NEM Core** 

**NEM Functions** 

					7		
Incorporates	Safely, reliably, and securely operating the NEM.	Includes the National Transmission Planner function, facilitating retail market competition, NEM Reform program and other functions.	Connections, registrations and onboarding activities in the NEM	The operation and evolution of the East Coast Gas Markets.	Safely, reliably, and securely operating the Wholesale Electricity Market (WEM).	Network planning, procuring augmentations, non- network services and system strength, delivery of the VNI West project early works.	NSW Consumer Trustee role for the NSW Electricity Infrastructure Roadmap and tender services for the Commonwealth's CIS.
Funding source/s	Participant fees	Participant fees	Fee-for-service	Participant fees	Participant fees	Transmission charges	Electricity Infrast. Fund (NSW) / contract (CIS)
Revenue (\$m)	215	87	24	56	59	19 (net)	32
Expenses (\$m)	169	120	24	54	70	52	35
Surplus/(deficit) (\$m)	46	(33)	0	2	(12)	(32)	(3)
Accumulated surplus/(deficit) (\$m)	(22)	(20)	0	56	(8)	16	3
Notes	On track to recover deficit in FY25	Delivered NEM and other functions, deficit addressed in FY25	Fee-for-service model means all costs are recovered	Return of surplus to be addressed in future periods	Delivered WEM Reform, deficit to be addressed in future periods	Prior year surplus returned as budgeted	Undertaking new activities for CIS on a cost recovery basis

**NEM** 

Connections

**East Coast Gas** 

**WA Electricity** 

and Gas

**Victorian TNSP** 

**AEMO Services** 



- Securely and reliably operated systems and markets, including in extreme market conditions.
- Improved usability, data visibility and market signalling through improvements to our operating technologies.
- Implemented Engineering Roadmap initiatives and updated the roadmap.
- Enhanced cyber security protection around AEMO's energy systems.
- Ongoing investment in skilled people to manage complex energy operations.
- On track to repay the historic accumulated deficit as committed to stakeholders.

#### **Fee trajectory**

 Above inflation in future years consistent with global benchmarks, to reflect anticipated costs to manage escalating operational risks and prepare the energy system to manage times of 100% renewables.

# EXPENS

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\$96m

Labour



**\$24m** 

**Digital** 



\$12m

Consulting, contractors



\$15m

Depreciation, amortisation



\$3m

Net finance costs



\$19m

Other

Total expenses \$169m



Under budget \$5m



- Delivered a roadmap for the transition of the NEM via the 2024 Integrated System Plan.
- Incentivised and simplified integration of bi-directional units through completion of the Integrating Energy Storage (IESS) project.
- Improved capacity to respond to frequency variability through the introduction of new very fast frequency markets.
- Supported consumer choice through deployment of the Consumer Data Right platform.
- Improved scheduling accuracy by driving increased visibility of mediumterm generator availability.
- Called for urgent and timely investment in electricity projects through the *Electricity Statement of Opportunities*.

#### **Fee trajectory**

- Increases anticipated amortisation and financing costs from deployed reform initiatives flow through.
- Newly agreed fee recovery structure for segment activities takes effect from 1 July 2024 with an anticipated \$60m increase in expenditure in FY25.

# **EXPENS**



\$35m

Labour



**\$22m** 

**Digital** 



\$7m

Consulting, contractors



\$40m

Depreciation, amortisation



\$8m

Net finance costs



\$8m

Other

Total expenses \$120m



Over budget \$18m



- Approved 56 generation and storage applications for projects in the **NEM in FY24,** representing 12 GW.
- Over the past three years, the number of connection applications received by AEMO increased from 45 sites (6,500 MW) in FY22 to 75 sites (17,000 MW) in FY24.
- Undertaken initiatives to streamline application assessments, with 75% of projects being commissioned to full output within 6.9 months down from 11.2 months.
- In preparation for a expected hot and volatile summer, accelerated the connection of 27 renewable assets, bring on an additional 3GW by March 2024.

#### **Fee trajectory**

 Activities are paid for directly by connecting participants on a "fee-forservice" basis.

ひ 日 ひ	\$11m	Labour
	<b>\$2m</b>	Digital
<u> </u>	° <b>≱</b> \$1m	Consulting, contractors
	<b>\$1m</b>	Depreciation amortisation
5	( <b>\$ \$9m</b>	Other

**Total expenses** \$24m



On budget



- Securely and reliably operated gas systems and markets
- Highlighted the important and ongoing need for gas in the transition and called for urgent investment to secure gas supply, through the Gas Statement of Opportunities
- Made improvements to operating technologies to reflect rule changes and manage gas supply adequacy and reliability.
- Established and began operating stage 1 of East Coast Gas (ECG)
   market. Planned for stage 2 of East Coast Gas Reforms.

#### **Fee trajectory**

- AEMO remains committed to maintaining a lower fee for the Victorian Wholesale Gas function, ensuring the return of prior year surplus and supporting the necessary investment in the gas reform initiatives.
- Recovery of Stage 1 of East Coast Gas Reform commenced 1 July 2024

# (J) EXPENSE **PERATING**

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\$29m

Labour



\$9m

**Digital** 



**\$2**m

Consulting, contractors



**\$7**m

Depreciation, amortisation



(\$5m)

Net finance costs



\$11n

Other

Total expenses \$54m



**Under budget** 

\$2m



- Securely and reliably operated systems and markets, through tight conditions, record high prices, a new low winter record and a distributed solar PV contribution record of 647 MW.
- Launched the new Wholesale Electricity Market (WEM), with new capabilities to support the WA government's Energy Transformation Strategy.
- Implemented key changes to the Reserve Capacity Mechanism (RCM) and continued working on the implementation of RCM Review work packages.
- Prepared the South West Interconnected System (SWIS)
   Engineering Roadmap, to unlock the full potential of renewable energy in the SWIS.

#### **Fee trajectory**

- Revenue in line with the WA regulator determination
- Higher amortisation and financing costs from deployed reform initiatives are reflected in future fees.

# EXPENSES **OPERATING**



\$34m <sup>լ</sup>

Labour



\$3m

Digital



\$3m

Consulting, contractors



**\$21m** 

Depreciation, amortisation



\$5m

Net finance costs



\$4m

Other

Total expenses **\$70m** 



Over budget \$4m



## Victorian TNSP

Planning and development of the Vic transmission network

#### Value delivered in FY24

- Undertook significant planning and progressed reforms to change the way transmission is developed in Victoria
- Progressed pre-planning and early works for the Victoria New South Wales Interconnector West project and engaged deeply with stakeholders.
- Continued to progress with Western Renewables Link project through the declared transmission system operator, Ausnet.

#### Fee trajectory

 Accumulated surplus from prior year will be returned via reduction of Transmission Use of System (TUOS) revenue requirement.

#### **AEMO's future role in Victoria**

The Victorian Government is progressing reforms to change the way transmission is planned and developed in Victoria. The <u>Victorian Transmission Investment Framework</u> reforms propose that all of AEMO's associated declared network functions will be transferred to VicGrid from AEMO. Legislation to enable this transfer is expected to be introduced to the Victorian Parliament next year.

<b>\$32m</b>	Labour
<b>\$6m</b>	Digital
<b>%</b> ≉ \$8m	Consulting, contractors
<b>32m</b>	Depreciation, amortisation
(\$2m)	Net finance costs
<b>\$6m</b>	Other

Total expenses

\$52m



Under budget \$23m



- Delivered tenders to bring on 2.45GW of new generation and 574MW of storage for NSW and supported the realisation of the NSW Electricity Infrastructure Roadmap.
- Took on new responsibilities as an advisor and delivery partner in the roll-out of the Commonwealth's Capacity Investment Scheme.



Total expenses \$35m



Under budget **\$4m** 





#### Ongoing investment to modernise core systems to support an evolving market

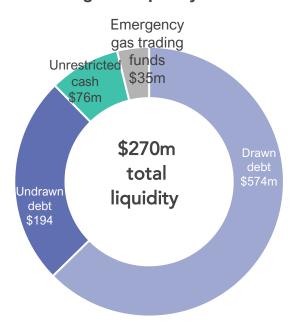
- In FY24 AEMO delivered \$167m in capital expenditure as we continue to uplift investment to deliver mandated energy market reforms and meet the needs of an increasingly complex operating environment. This was a 18% increase from FY23.
- Key projects delivered included a new WEM, major reforms to the NEM, including Integrating Energy Storage Systems and very fast frequency response markets, and investment in cyber security to reflect the critical nature of the role AEMO plays in the energy sector.
- Most programs are multi-year, supported by project governance frameworks centred around value realisation.
- AEMO works in close consultation with the market to sequence and bundle reform implementation and solutions to reduce overall cost and impacts on industry.
- In addition, AEMO has put in place digital partnerships to enable the organisation to be able to scale and deliver the significant change agenda.
- Increasing depreciation/amortisation and financing costs from this investment is being reflected in our operating expense profile and this trend is expected to continue in future years.



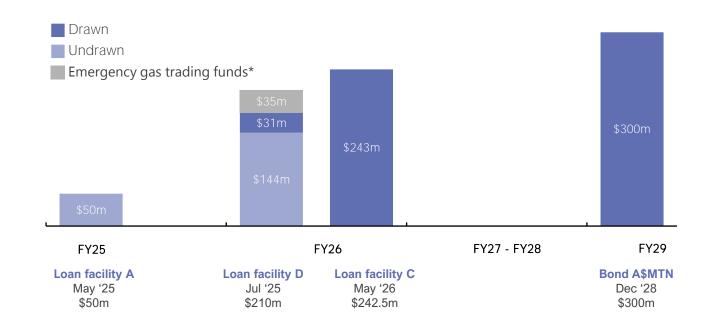
# Financing and liquidity



#### Financing and liquidity as at 30 June 2024



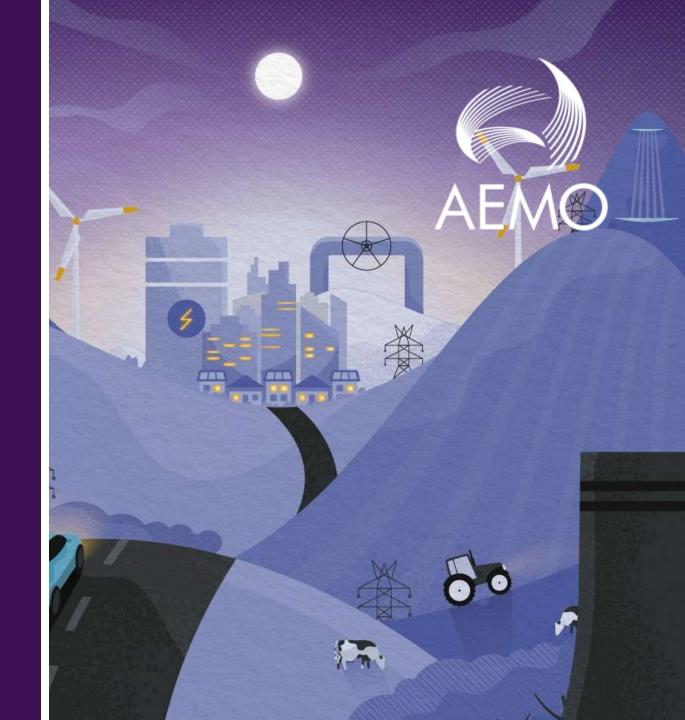
#### Maturity profile of financing facilities (at 30 June 2024)



- Aa2 stable credit rating assigned by Moody's
- AEMO's inaugural \$300m fixed rate bond (A\$MTN) reached financial close in December 2023, significantly reducing AEMO's floating rate exposure and diversifying AEMO's financial portfolio.
- AEMO reach financial close in July 2024 a \$120m concessional loan with the Clean Energy Finance Corporation to fund the VNI-West early works (not shown on 30 June 2024 chart).

# FY25 Priorities

**Daniel Westerman**Chief Executive Officer



## **FY25 Priorities**





# Operating today's systems and markets

- Uplift operational capability.
- Uplift operational digital systems.
- Continue to strengthen AEMO's cyber security posture.
- Continue to work with industry to strengthen cyber security posture.



#### 2. Navigating the energy future

- Progress NEM and SWIS Engineering Roadmap initiatives.
- Deliver and embed NEM and gas reforms, and plan the next reforms.
- With industry, progress CER reform.
- Advance the transition through CIS and NSW roadmap.
- Commence on the 2025 Participant Fee engagement.



# 3. Engaging our stakeholders

- Continue to work closely with stakeholders to deliver our work.
- Improve accessibility and reach of our insights and publications.
- Build understanding of the energy transition with consumers and the community.
- Embed a more consumerfocused mindset in AEMO's decision-making and ways of working.



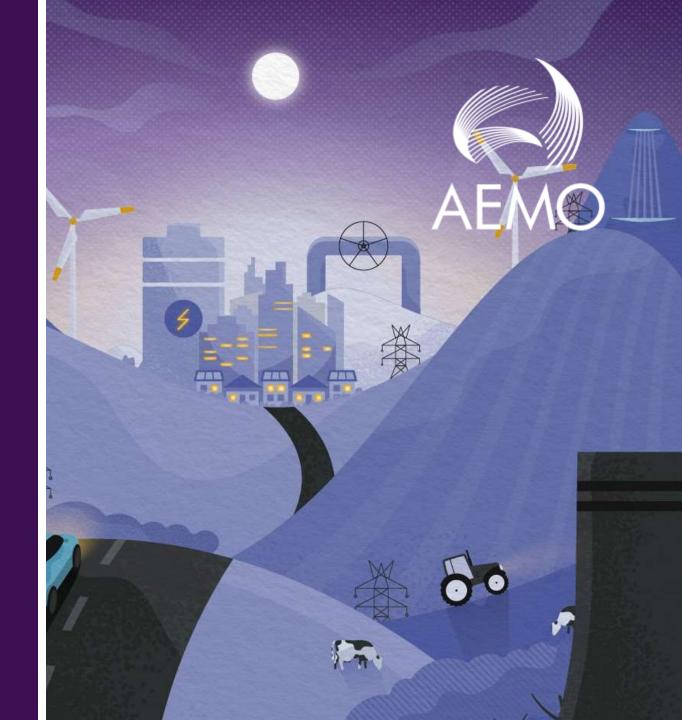
#### 4. Evolving the way we work

- Deliver reconciliation priorities.
- Develop and deliver ESG strategy.
- Modernise and streamline corporate systems and processes.
- Uplift AEMO's data capabilities.
- Deliver outcomes within budget.

# Questions & answers

Head to <a href="www.Sli.do">www.Sli.do</a> and enter #AEMO to ask a question





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