

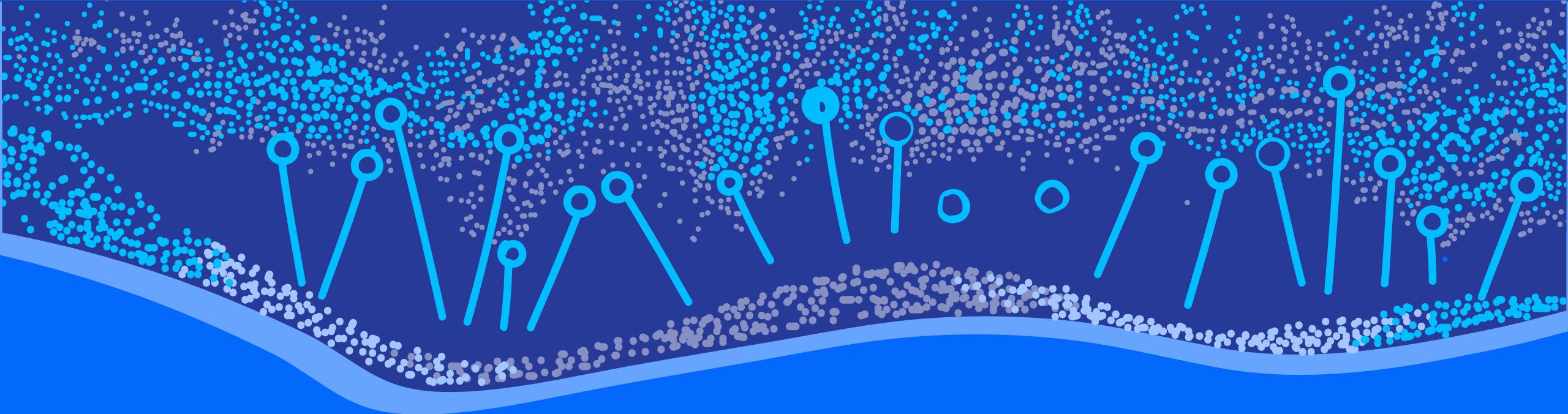
Redesigning the rules: How regulation can enable a smarter, fairer energy system

Rainer Korte | Commissioner

3 December 2025

Australian Energy Market Commission

AEMC

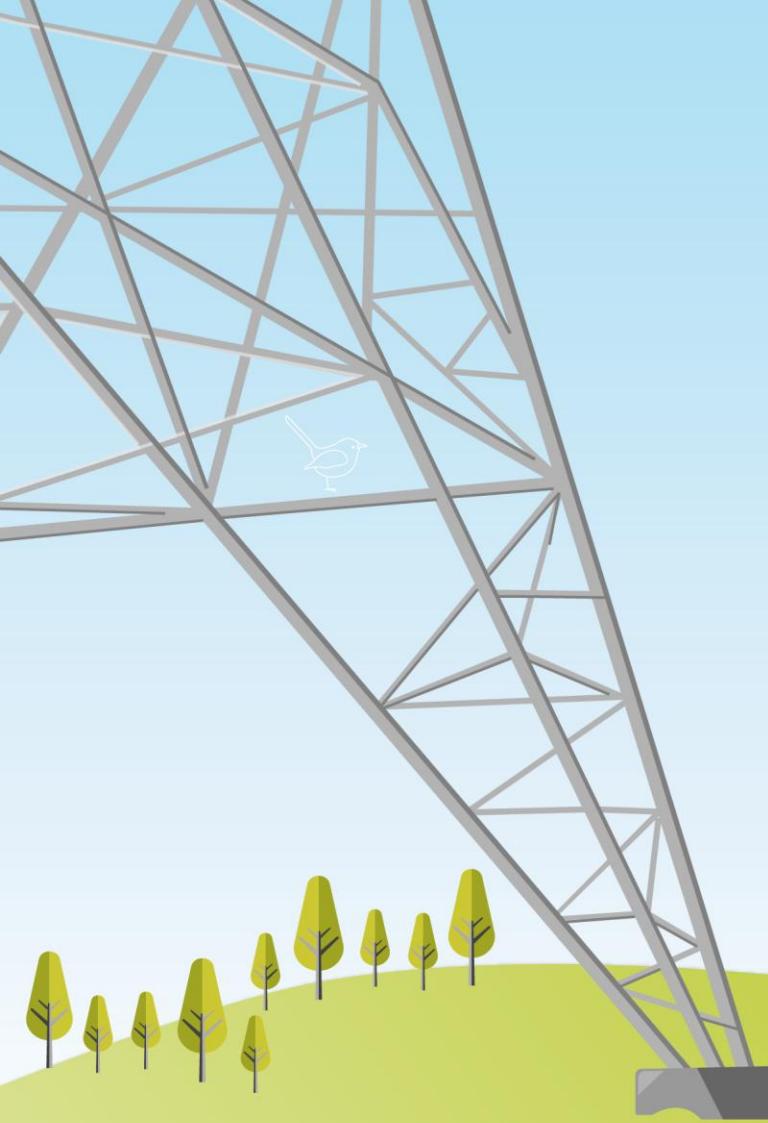


ACKNOWLEDGEMENT OF COUNTRY

The AEMC acknowledges and shows respect for the Traditional Custodians of the many different lands across Australia on which we live and work. The AEMC office is located on the land of the Gadigal people of the Eora Nation. We pay respect to all Elders past and present, and the enduring connection of Aboriginal and Torres Strait Islander peoples to Country.

The world changed here ...





The Australian Energy Market Commission is the rule maker for Australian electricity and gas markets.

We listen and make practical rule changes in a rapidly changing world for Australia's National Electricity Market, elements of the natural gas market and related retail markets.

We also provide expert advice on energy issues to the Australian Government's Energy and Climate Change Ministerial Council.

The National Electricity, Gas and Retail Rules made by the AEMC have the force of law. All the AEMC's work is guided by legislated national energy objectives.



AEMC

Achieving a consumer-focused net zero energy system

We consulted and reflected on the challenges most likely to require ongoing effort from policymakers, regulators and stakeholders. From this work, we published our [strategic narrative](#), which identifies eight key challenges and opportunities to achieve:



Equitable energy outcomes across households.



Delivery of capital, labour and other resources.



Energy system security and reliability.



Cross-portfolio coordination of relevant energy and net zero policies.



Levels of social trust that will support change.



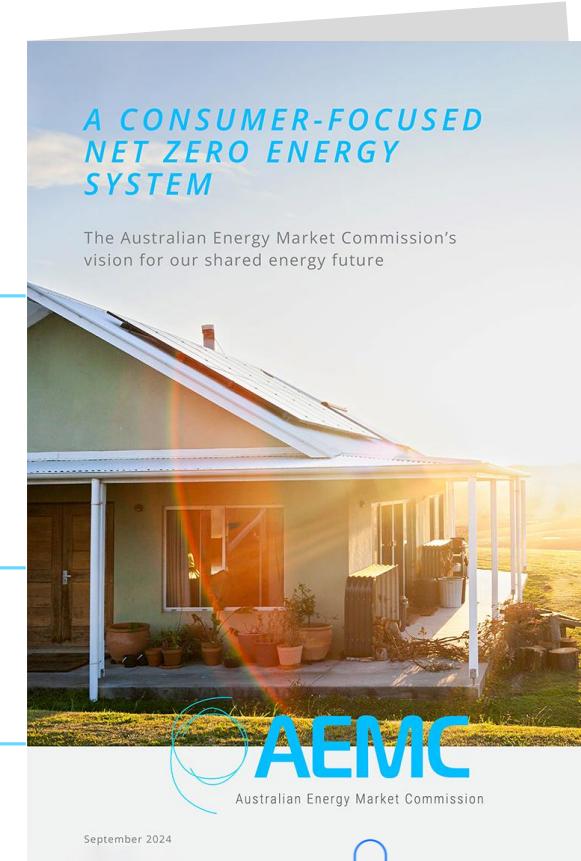
Meeting community and environmental needs alongside infrastructure requirements.



Accessible data that supports the evolving energy system.

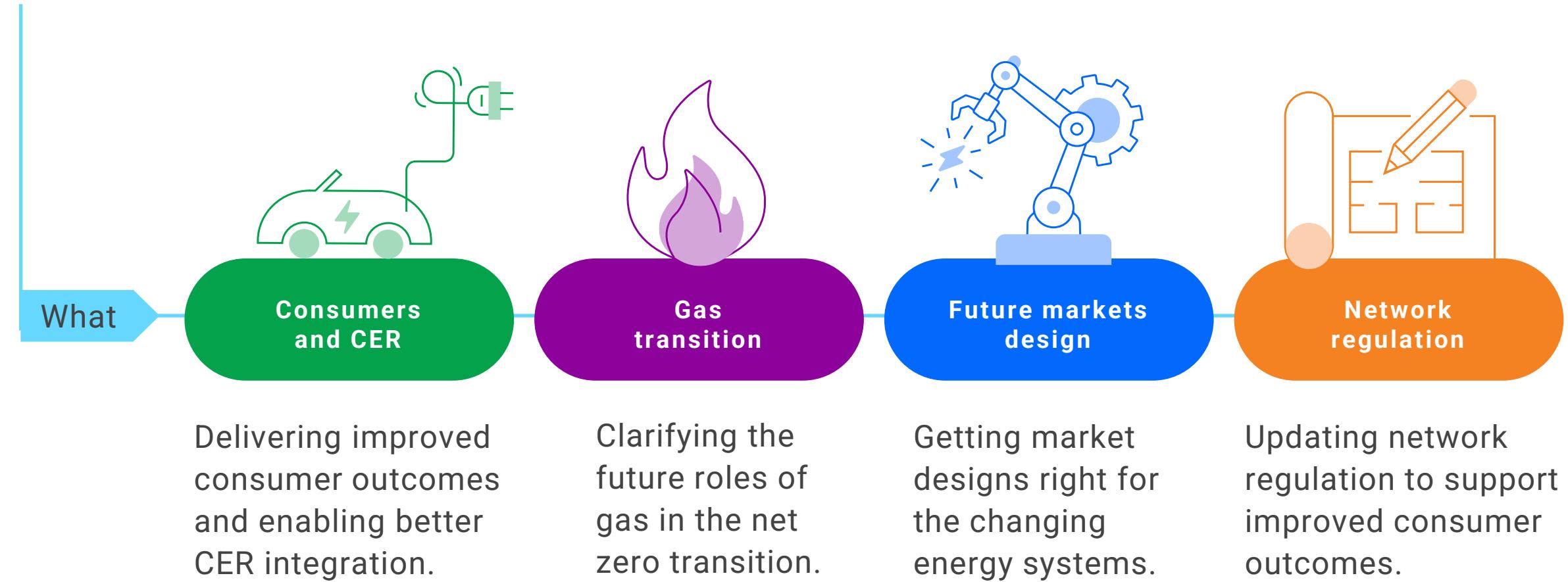


Transition planning for the role of gas.



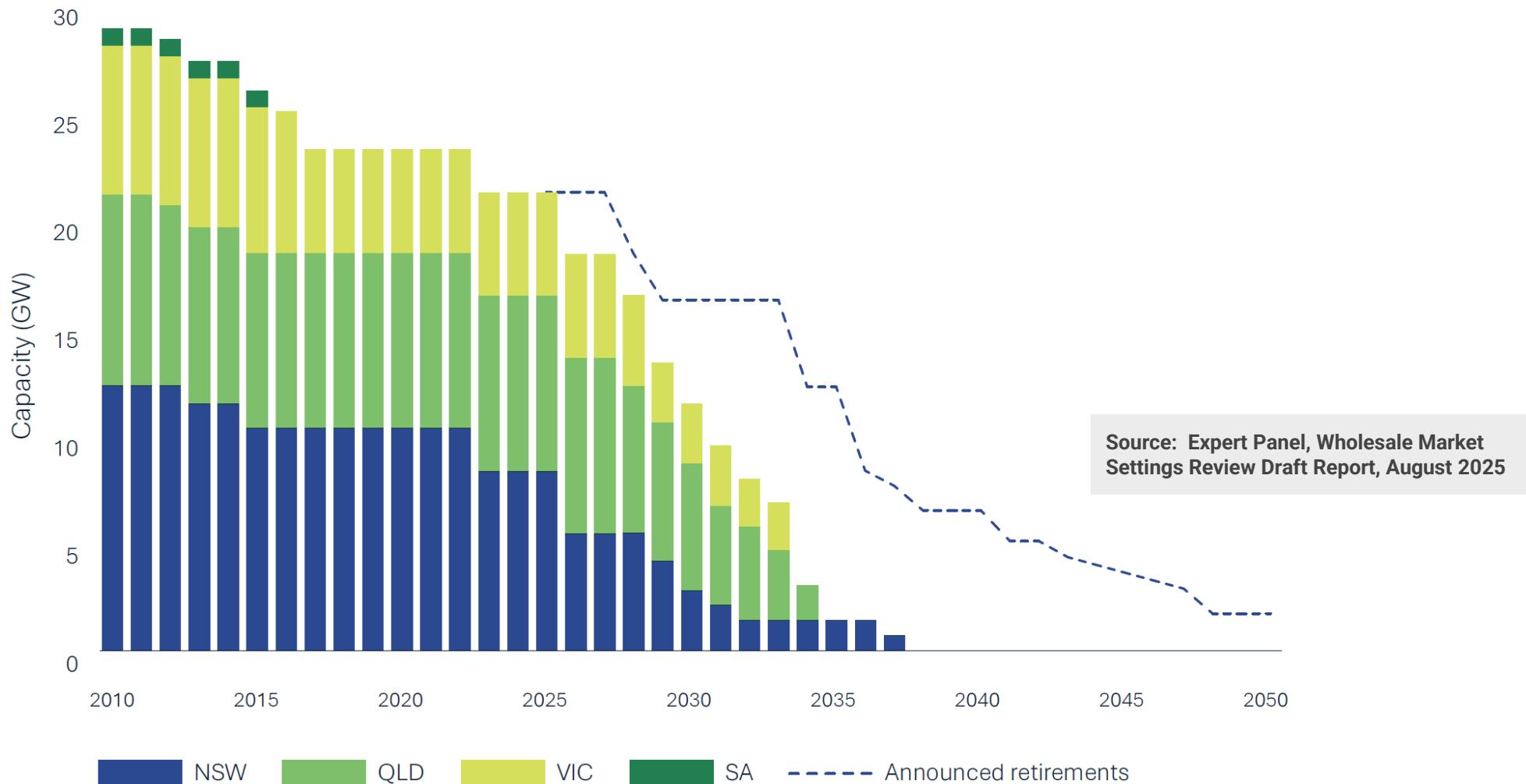
AEMC energy reform priorities

Work program priorities FY26



Australia's coal-powered generation is closing

Nearly all of Australia's ageing coal-powered generation is expected to close by 2035



Integrated System Plan provides a roadmap for the energy transition



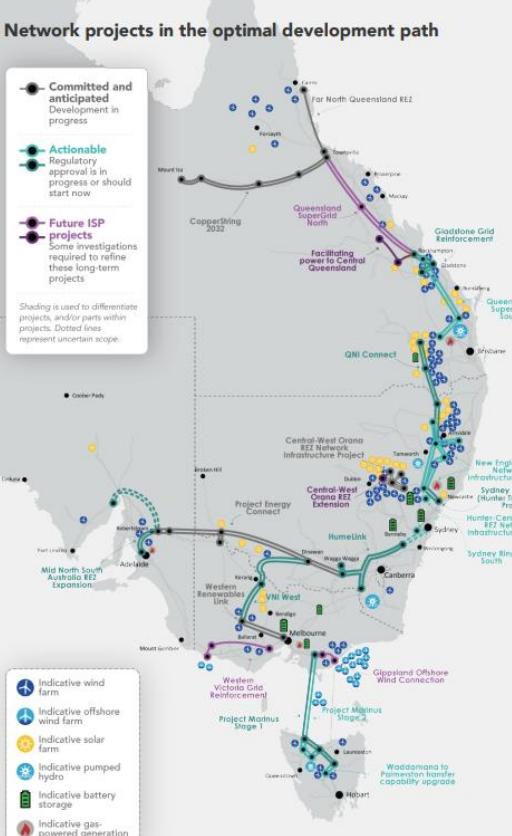
2024 Integrated System Plan (ISP)

AEMO has published the 2024 ISP, a roadmap for the transition of the National Electricity Market (NEM) to meet future energy needs and enable a net zero economy by 2050.

At a high level, the ISP presents the 'optimal development path' (ODP), which is the lowest-cost path to the NEM's energy future of net zero by 2050. The ODP sets out new grid-scale generation, firming, storage and transmission needed in the NEM, and has an annualised capital cost of \$122 billion to 2050.

Western Australia and the Northern Territory are not part of the NEM, and have their own independent power systems.

Network projects in the optimal development path



Committed and anticipated: Development in progress
Actionable: Regulatory approval is in progress or should start now
Future ISP projects: Some investigations required to refine these long-term projects

Shading is used to differentiate projects, and/or parts within projects. Dotted lines represent uncertain scope.

Consultation

AEMO's 2024 ISP takes into account feedback from a wide range of different groups and sources, including workshops, webinars, public forums, other engagements and submissions.

2,100 stakeholders engaged	12 webinars hosted	85 presentations and reports	220 written submissions
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Inputs to the ISP include:

- Government policies on renewable energy and storage
- Emissions reduction policies and targets
- Requirements of the National Electricity Objective and Rules
- Demand forecasts
- Technology capabilities and costs
- Reliability and security needs
- Relevant sector forecasts (gas, hydrogen)
- Consumer energy resources

Net benefits

The ODP is the lowest-cost path through the NEM's transition to a net zero future. It calls for around 10,000 km of new transmission projects by 2050 to connect new generation across the power system. These transmission projects would reduce costs for consumers by delivering benefits that would recoup their \$16 billion investment costs, save consumers a further \$18.5 billion in avoided costs, and deliver emissions reductions valued at \$3.3 billion.

Actionable projects

Seven transmission projects have been progressed since the 2022 ISP to 'actionable' status, allowing more coordinated and effective community consultation to commence earlier.

Work for both new and previously actionable projects should progress to deliver these projects to schedule.

- Hunter-Central Coast Renewable Energy Zone (REZ) Network Infrastructure project
- Sydney Ring South
- Gladstone Grid Reinforcement
- Mid North South Australia REZ Expansion
- Waddamana to Palmerston Transfer Capability Upgrade
- Queensland SuperGrid South
- Queensland-New South Wales Interconnector Connect (QNI Connect).

Key facts and figures ('Step Change' scenario)

Storage capacity to increase significantly	Grid-scale wind and solar to increase 6-fold	Distributed solar PV to increase 4-fold	Electricity consumption from the grid to nearly double	Gas-powered generation to increase	Coal generation to be withdrawn
Batteries, virtual power plants, pumped hydro	Solar panels, wind turbines	Rooftop solar, other distributed solar	Residential and commercial buildings	Gas-fired power plants	Coal-fired power plants
NOW 3 GW ▶ 2030 22 GW ▶ 2050 49 GW	NOW 21 GW ▶ 2030 55 GW ▶ 2050 127 GW	NOW 21 GW ▶ 2030 36 GW ▶ 2050 86 GW	NOW 174 TWh ▶ 2030 202 TWh ▶ 2050 313 TWh	NOW 11.5 GW ▶ 2030 15 GW ▶ 2050 46% ▶ 2038 100%	NOW 11.5 GW ▶ 2030 15 GW ▶ 2050 46% ▶ 2038 100%

Transition Plan for System Security

Maintaining system security through the energy transition is critically important

TPSS

System security planning reports

2024

Transition Plan for System Security

AEMO's current understanding of how to keep the power system secure through the energy transition. Now to 10+ years.

NSCAS report

Assessment of NSCAS needs for a 5-year outlook (plus system strength & inertia over 3-years).

System strength report

System strength requirements for a 10-year outlook, including minimum fault levels, and the efficient level of system strength to support voltage waveform stability

Inertia report

Inertia requirements for a 10-year outlook, for use when planning for both normal and islanded operation.

2025 onwards

Transition Plan for System Security

Part A – Transition planning

How the energy transition affects system security. AEMO's approach to transition planning.

Part B – Regional transition plans

Transition points in maintaining security over the coming 10+ years, integrating system security planning studies.

Part C – System-wide developments and plans

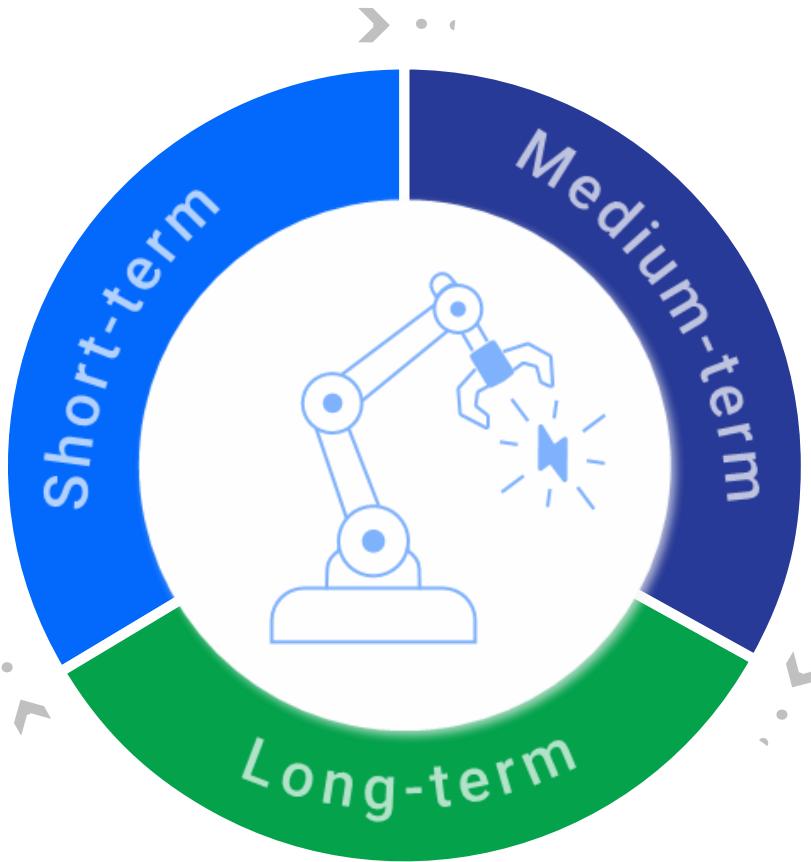
Evolving understanding of what is needed to maintain power system security in a low- or zero-emissions power system.

Appendices

Source: AEMO –
2025 Transition Plan
for System Security –
December 2025

NEM wholesale market settings review draft findings

Emerging trends in the short, medium, and long-term markets



Emerging pressures
in the sport market

Liquidity and access
challenges in the
contract market

Structural barriers to
long-term investment

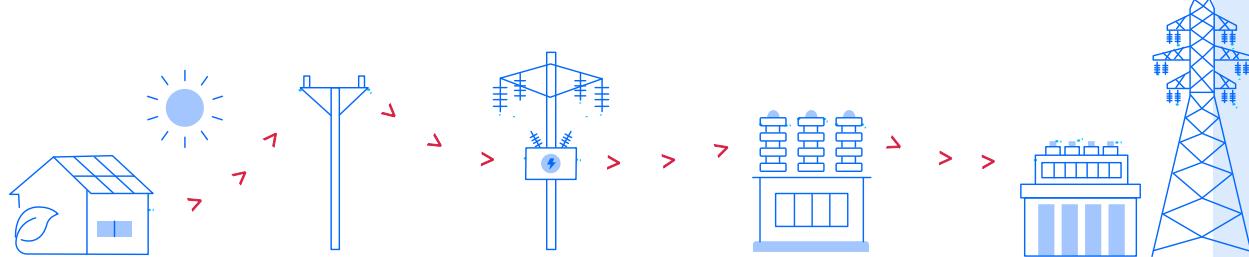
NEM wholesale market settings review draft recommendations

Summary of recommendations

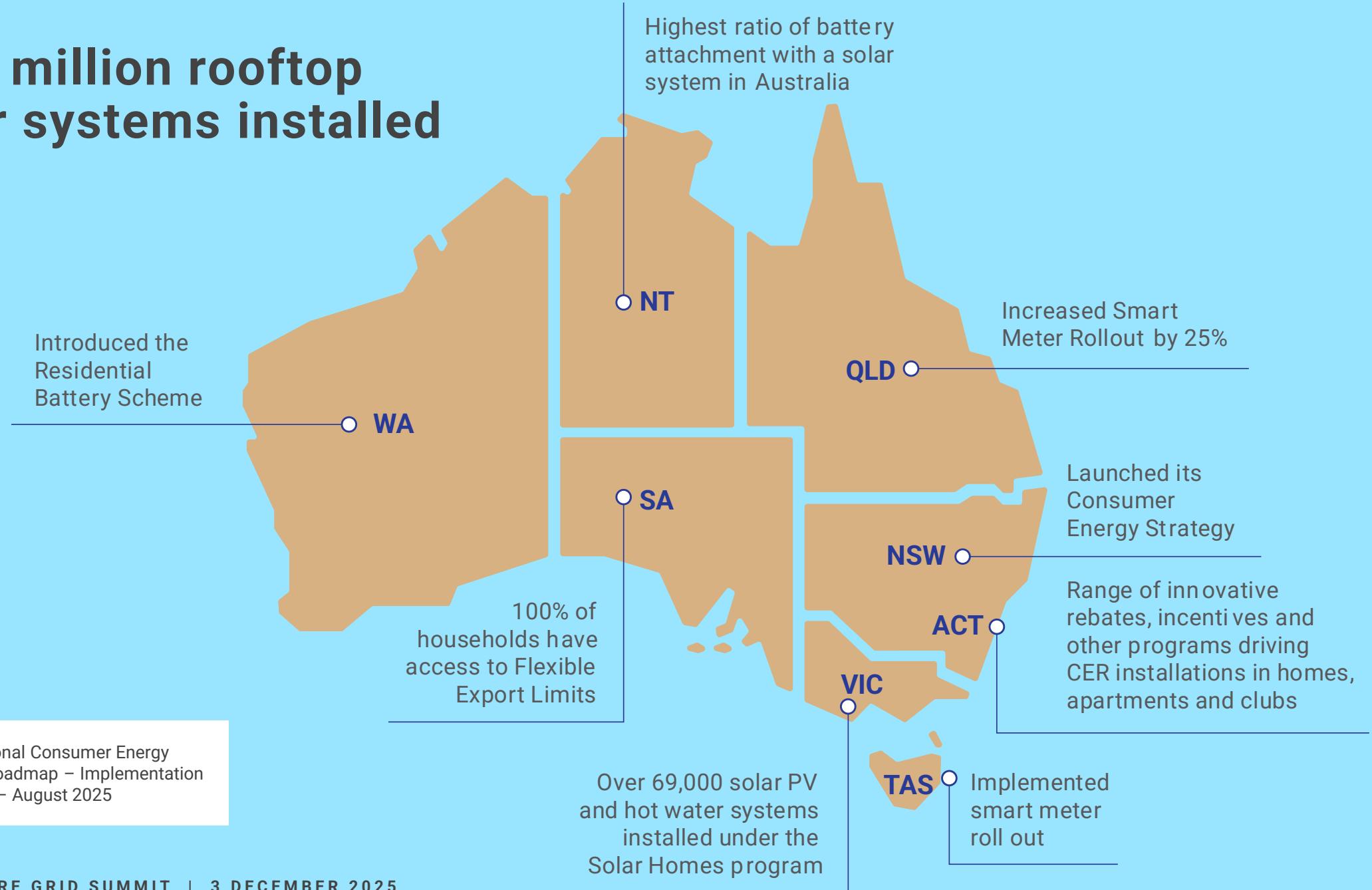
Key themes

- Reforms to support the continued efficient operation of the spot market.
- Reforms to enhance liquidity in the short-term to medium-term derivatives market.
- Reforms to support new investment in the services the NEM needs.
- Reforms to ensure consumers benefit.

1. Retain real-time regional energy only spot market
2. Require a broader range of price-responsive resources to be visible or dispatched to participate in price formation
3. Facilitate CER market participation
4. Changes to ensure the efficient and competitive operation of the spot market
5. Reliability Panel to consider adjusting the form of the market price settings
6. Establish an always-on market-making obligation for key derivative contracts
7. Ensure sufficient market information is available to support longer-term derivatives market liquidity and price discovery
8. Establish an Electricity Services Entry Mechanism (ESEM) to facilitate investment
9. Coordinated reforms to ensure existing policies and regulatory settings are aligned to the ESEM

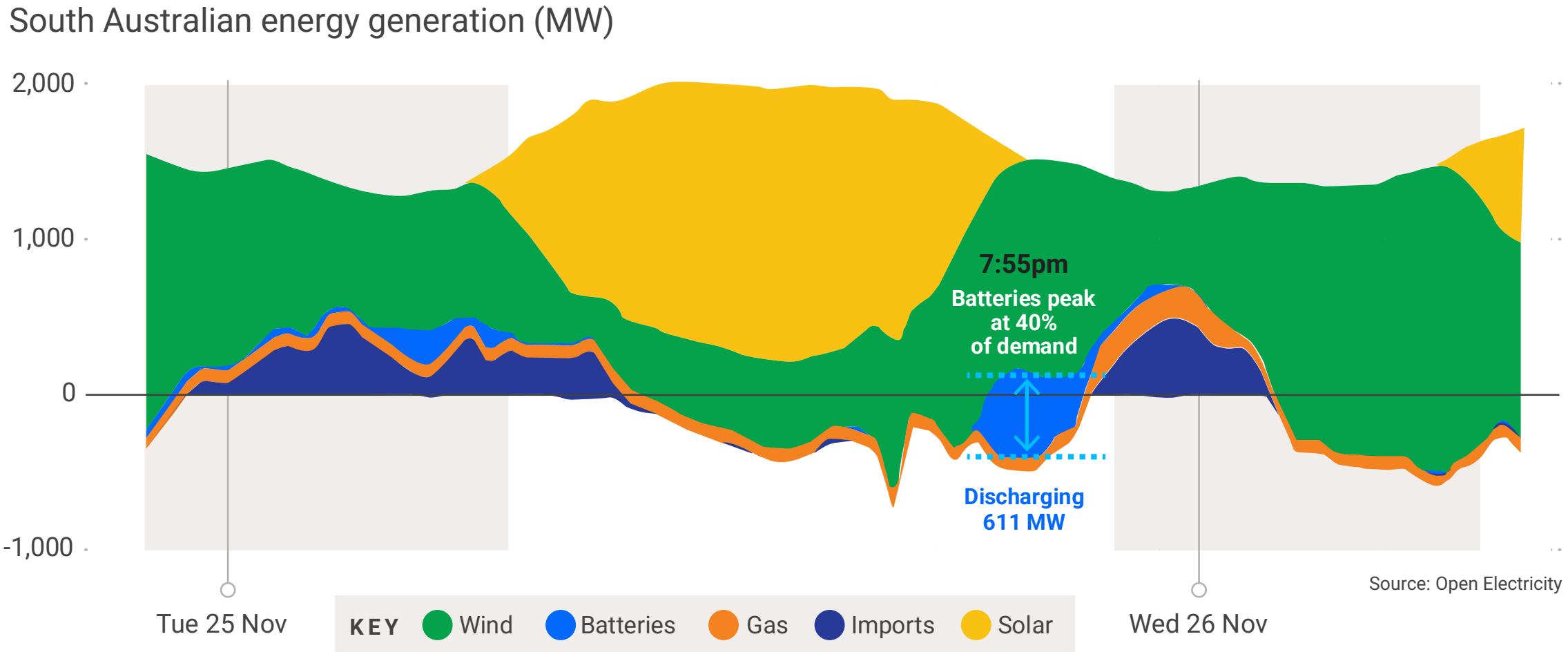


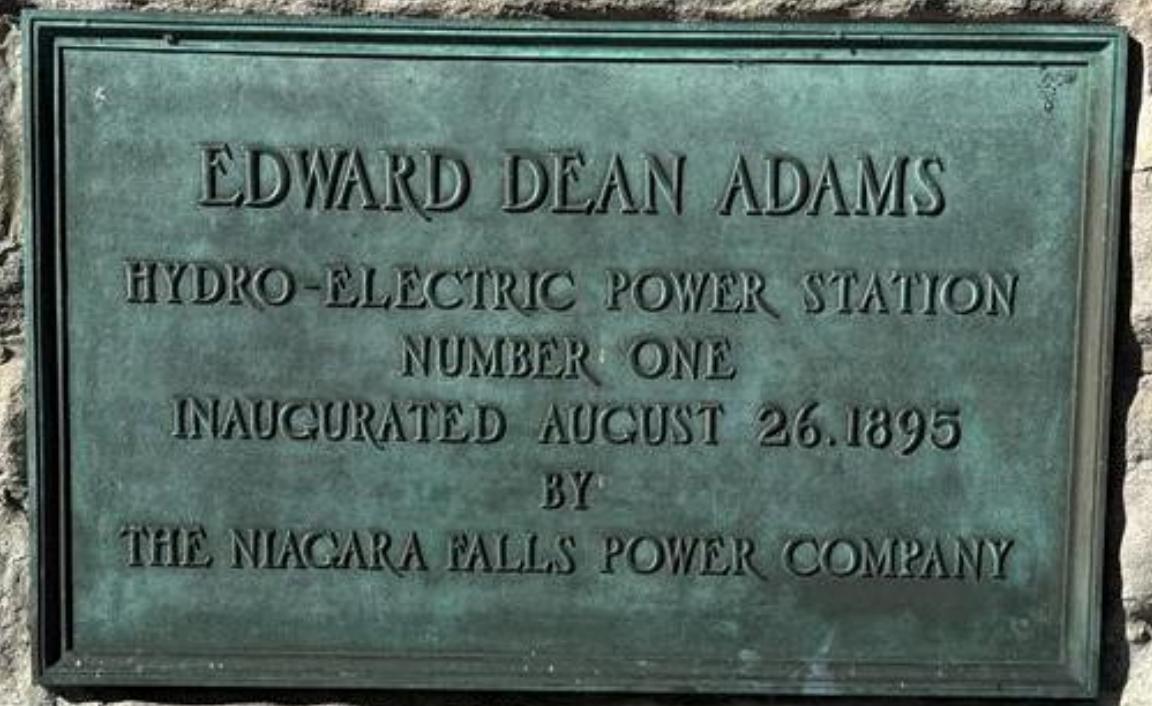
Four million rooftop solar systems installed

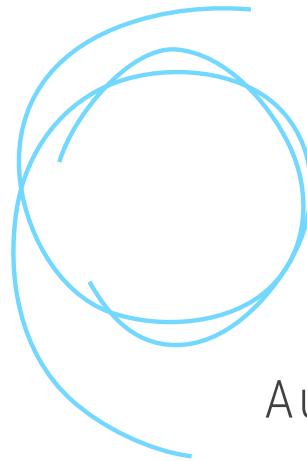


Batteries in South Australia reach 40% share of demand

A year ago, South Australia's record was just 20%







AEMC

Australian Energy Market Commission



Keep in touch

www.aemc.gov.au

At the Australian Energy Market Commission
we are always keen to keep in touch. You can learn
more about who we are and what we do via our
website, or email, rainer.korte@aemc.gov.au

