

Connecting system planning and industry capability

Realising the promise of
coordinated and bidirectional
charging

October 2026





We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

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.

AEMO is proud to have launched its Innovate Reconciliation Action Plan in June 2026. Pictured left and featuring on the cover of the Innovate RAP is Wiradjuri artist Lani Balzan's 'Journey of unity: AEMO's Reconciliation Path', a visual representation of 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.

Read our
RAP



About AEMO

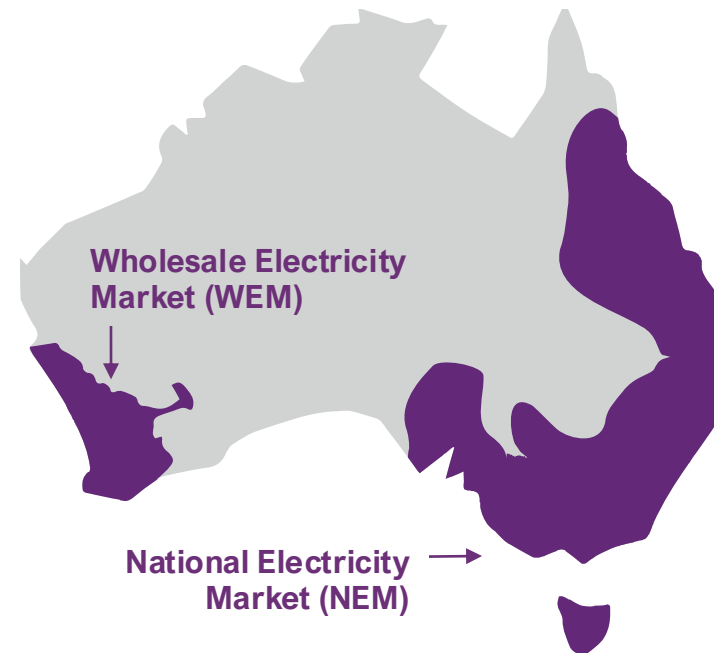
- AEMO is a member-based, not-for-profit organisation.
- We are the independent energy market and system operator for the National Electricity Market (NEM) and the WA Wholesale Electricity Market (WEM), and system planner for the NEM.
- We also operate retail and wholesale gas markets across south-eastern Australia and Victoria's gas pipeline grid.



ASL is an independent subsidiary of AEMO, established in 2021 to enable the transparent provision of advisory and energy services to National Electricity Market jurisdictions.



Electricity



Gas



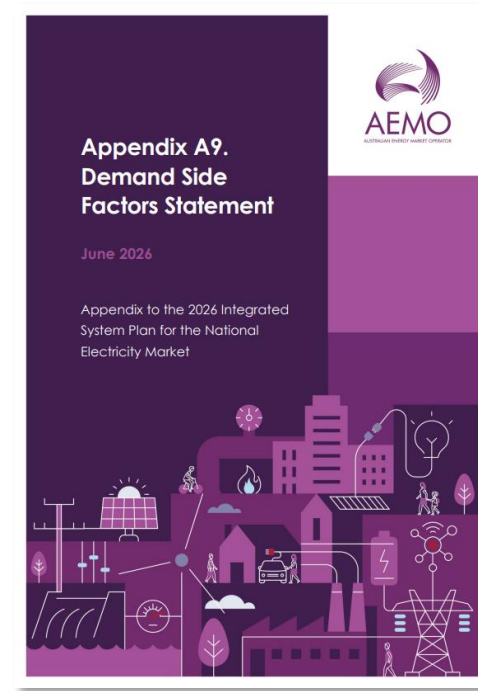
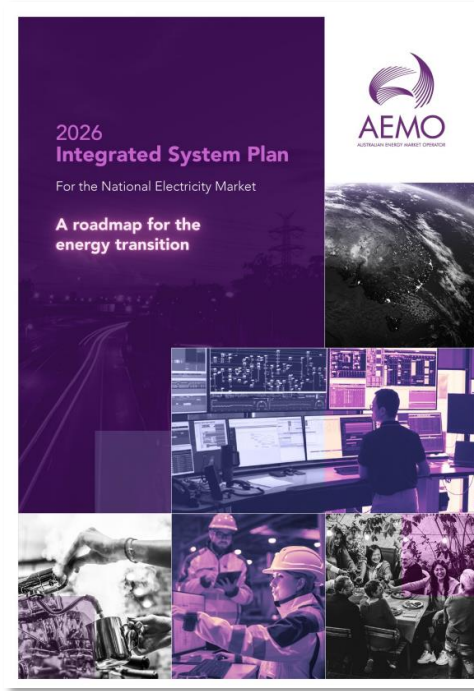
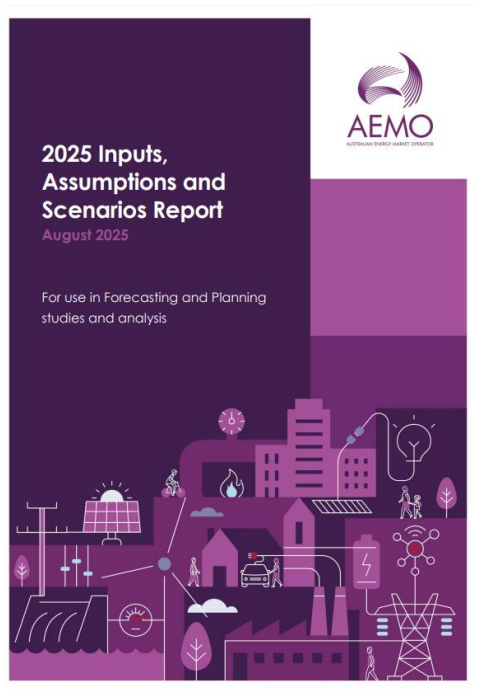
What is needed
to make bidirectional EV charging
good for the user and
good for the system?

The \$1.4B opportunity

The additional coordination provided by V2G in addition to VPPs avoids the need for up to 4 GW of utility scale storage builds and 1 GW of additional wind capacity by 2049-50,

avoiding \$1.4 billion in total system cost.

CER uptake is an input



The IASR details inputs, assumptions and planning scenarios, developed through collaboration with stakeholders, for use within AEMO's planning publications

<https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>

The ISP outlines an optimal path for generation, storage and network investments in the NEM to meet both consumer needs and government policies, at least cost, to 2050

<https://www.aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2026-integrated-system-plan-isp>

The DSF Statement considers the potential for demand side factors to affect the efficient development of the power system, and opportunities for the efficient development of distribution networks that support consumers' needs

Are there further opportunities?

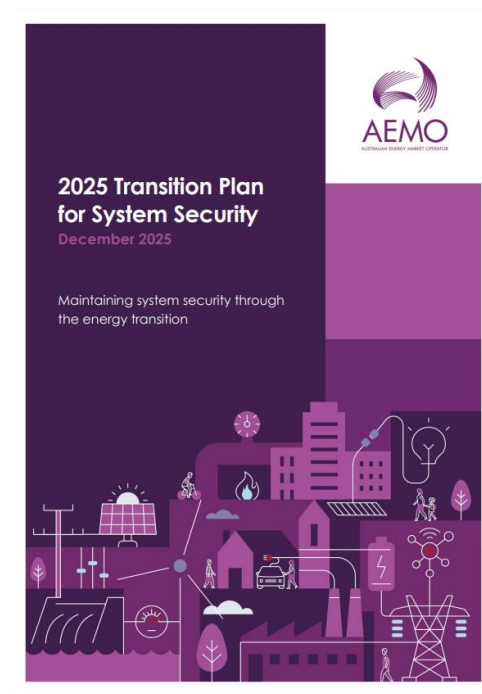
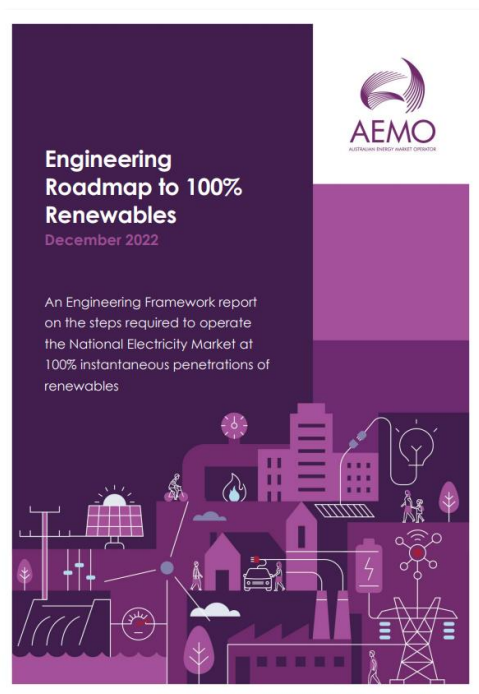
The initial Demand-Side Statement of Opportunities (DSOO) will assess the potential contribution of demand-side opportunities to a lower-cost, reliable and lower-emissions energy system

<https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/demand-side-statement-of-opportunities>

Accessing market and network value

- Retail tariffs
- Integrating Price-Responsive Resources (IPRR) rule change
- Dynamic Network Pricing
- Network flexibility marketplaces

Power system security



2026 Transition Plan for
System Security,

inc. Engineering
Roadmap 3-year
workplans

The Engineering Roadmap reports on the steps required to operate the NEM at 100% instantaneous contribution of renewables

<https://www.aemo.com.au/initiatives/major-programs/engineering-roadmap>

The Transition Plan for System Security outlines AEMO's current understanding of how to keep the power system secure though the energy transition to lower emissions

<https://www.aemo.com.au/energy-systems/major-publications/transition-plan-for-system-security-tpss>

The **draft** distributed energy resources workplan

Considers five objectives relating to

- Visibility and predictability
- Whole-of-system operational coordination
- Emerging system challenges
- Cyber-physical resilience
- Technical standards

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Capabilities exist

The gaps are in implementation

- Requirements, interoperability, compliance, conformance,
- Clear roles, responsibilities and governance
- Operational evidence and validation



For more information visit
aemo.com.au