



2024 Electricity Statement of Opportunities

AEMO's 2024 Electricity Statement of Opportunities (ESOO) is a 10-year outlook of investment requirements to maintain reliability in the National Electricity Market.

About AEMO

As Australia's independent system and market operator and system planner, AEMO's purpose is to ensure secure, reliable, and affordable energy and enable the energy transition for the benefit of all Australians.

We do this by operating the electricity and gas systems and markets of today and planning the energy system of the future.

For more information: www.aemo.com.au

About the ESOO



Each year, AEMO produces the ESOO to identify investment opportunities for market participants, investors, governments and other jurisdictional bodies to maintain a reliable supply of electricity in the NEM.



The ESOO draws on industry surveys, transmission information, and analysis of conditions that could impact the supply of electricity. It also forecasts demand, including consumer behaviour.



The 2024 ESOO includes a number of reliability assessments including a *Federal and State Schemes sensitivity*, and a *Committed and Anticipated Investments sensitivity*. These sensitivities acknowledge that a range of market-driven and government-supported developments are progressing to provide new infrastructure over the next 10 years.

Definitions

Expected unserved energy (USE): refers to energy that cannot be supplied to consumers when demand exceeds supply, under certain circumstances.

Consumer energy resources (CER): refers to devices owned by households and businesses, such as solar panels, batteries and electric vehicles.

CER coordination: refers to the ability to coordinate various consumer devices such as batteries and electric vehicles, to support power system reliability. An example would be via a Virtual Power Plant (VPP).

Key takeaways

Expected investments in new generation, storage and transmission must be delivered on time and in full to maintain a reliable supply of electricity to homes and businesses.

- Compared to last year's ESOO, forecast reliability has improved, helped by 5.7 gigawatts of newly advanced grid-scale generation and storage developments and 365 km of new transmission developments to 2033-34.
- Owners have informed AEMO that one-third of the total coal, gas and diesel generator capacity will retire in the next decade, at the same time as demand for electricity is expected to grow.
- If government-led investment programs, new generation and transmission developments, and coordination of CER are realised on time and in full, these reliability risks can mostly be managed over the next decade.
- This summer, AEMO will tender for additional reserves for use should low reserve conditions emerge in South Australia, New South Wales and Victoria.
- AEMO is also already working with industry and governments to prepare for and to manage these conditions.

What influences the reliability outlook?



Advised coal, gas and diesel generator retirements



Progress of wind, solar, battery, gas and pumped hydro developments



Forecast energy consumption and maximum demand



Transmission project development and commissioning



Rooftop solar, home batteries and EV uptake



For more information

The [2024 ESOO](#) is available online.

Information on relevant webinars and consultations can also be found on AEMO's website.

Reliability outlook in the 2024 ESOO

Expected investments in new generation, storage and transmission must be delivered on time and in full to maintain a reliable supply of electricity to homes and businesses. AEMO considers a range of outlooks when forecasting the electricity outlook for the next 10 years. The sensitivities below show that if all expected investments to generate, store and transport electricity are delivered on time and in full, then reliability can mostly be managed throughout the next decade.

Definitions

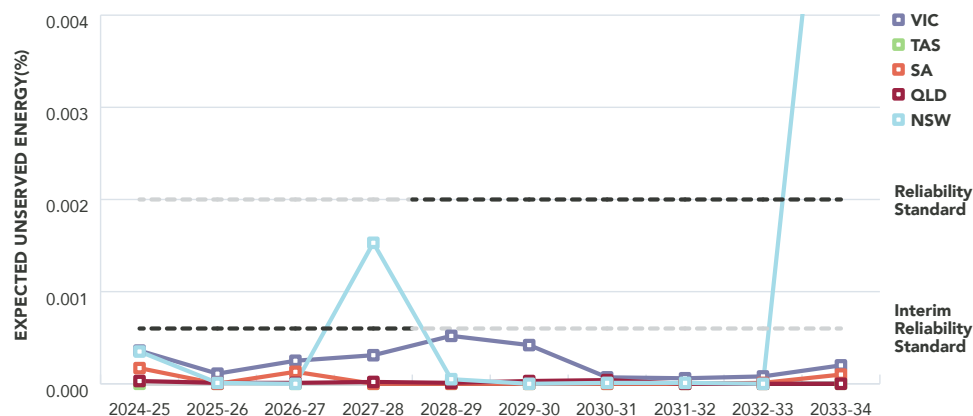
Reliability: refers to the ability of the power system to provide the required power to customers, at all times, without interruption. Certain conditions, such as heatwaves, low solar and wind output, and generator outages, can cause reliability risks if they happen at the same time.

Existing project: already operational or in commissioning.

Committed project: under construction or about to commence development.

Anticipated project: reasonably expected to proceed.

If expected investments are delivered on time



Sensitivity overview

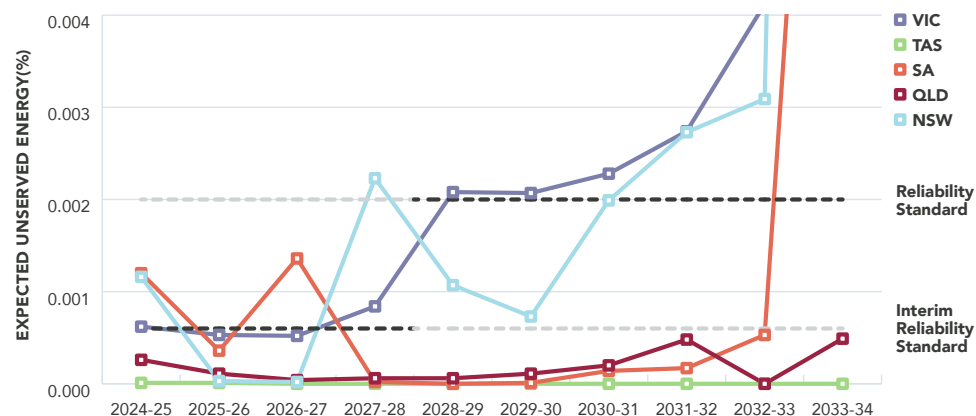
The *Federal and State Schemes* sensitivity includes all existing, committed and anticipated developments as well as actionable transmission investments, forecast growth in coordinated CER, and implementation of government energy policies and programs. It does not include all policies under active development by jurisdictions or announced targets within existing policies.

Key findings

Should the above programs and investments be delivered on time and in full, reliability levels can be maintained over most of the next 10 years.

These government programs include the South Australia Hydrogen Jobs Plan, ARENA Large Scale Battery Storage Funding Round, NSW Infrastructure Investment Objectives Report, Queensland Energy and Jobs Plan, Victorian Renewable Energy Target Auction 2, and Capacity Investment Scheme - South Australia and Victoria.

With only committed and anticipated investments



Sensitivity overview

The *Committed and Anticipated Investments* sensitivity includes only existing, committed and anticipated developments, and incorporates recently observed project commissioning delays. It serves as AEMO's reliability forecast and indicative reliability forecast in this 2024 ESOO, and may be used by AEMO, governments and industry to prepare actions to mitigate these forecast reliability risks.

Key findings

While short-term reliability has improved, AEMO is tendering for off-market reserves in Victoria, New South Wales and South Australia this summer to manage potential low reserve conditions.

In coming years, all NEM regions except Tasmania require delivery of expected and new generation, storage, transmission and coordination of CER to manage reliability. This is mostly due to retiring coal power stations.