2023

Electricity Statement of Opportunities (ESOO)

The ESOO provides a reliability outlook for the National Electricity Market in the coming decade, helping inform planning and policy decisions.

This year's report highlights that Australia's energy transition is happening at pace. Our old coal-fired power stations are retiring, at the same time as demand for electricity is increasing.

Without urgent and sustained investment in new sources of electricity, and the transmission needed to connect it to consumers, there are significant risks to reliability.

Planned generation, storage and transmission, supported by government programs, must be delivered urgently, with any delay likely to put reliability at risk over the coming decade.

Reliability considerations to 2033

Generation retirements (approx 20% of today's older coal and gas fleet have been notified to retire)

Why are power stations retiring?

Many of the coal and gas power stations expected to retire are reaching their end of life, like the recently retired Liddell Power Station, established in 1971.

Further, thermal power station owners are now also competing against lower cost wind and solar generation, challenging the traditional role, technical capability and financial returns of these coal and gas plants.

Unavailability of generation or transmission

Delays in delivering new generation, storage and transmission

Coordination of residential rooftop solar and storage (batteries and electricity vehicles)

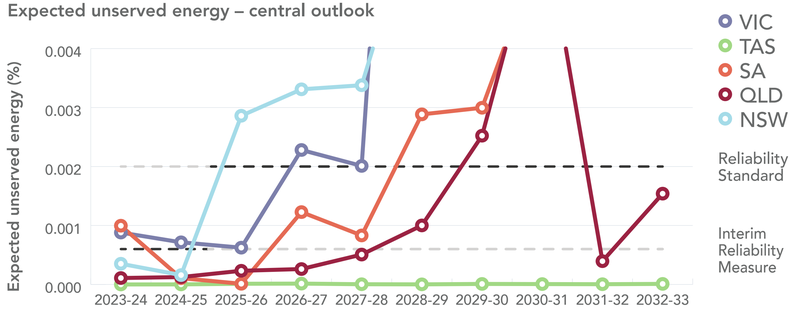
Economic, population growth & fuel switching to electricity

ESOO central scenario

Considering only existing, committed[1] and anticipated projects[2] as per the ESOO's 'central scenario', reliability risks are forecast to exceed the relevant reliability standard in Victoria from this summer, in New South Wales from 2025-26, South Australia this summer and then again from 2028-29 and Queensland from 2029-30.

This summer has more risk than the last few years. It is forecast to be hotter and drier, meaning that electricity demand will likely be higher. The industry is preparing so it can manage higher demand, but some elevated risk remains.

Expected unserved energy – central outlook



1. Committed projects meet all five of AEMO's commitment criteria (land, contracts, planning, finance and construction) but have not yet met the requirements of their first commissioning hold point.
2. Anticipated projects have made progress towards at least three of AEMO's commitment criteria and have provided AEMO confirmation or update of project status in the last six months.

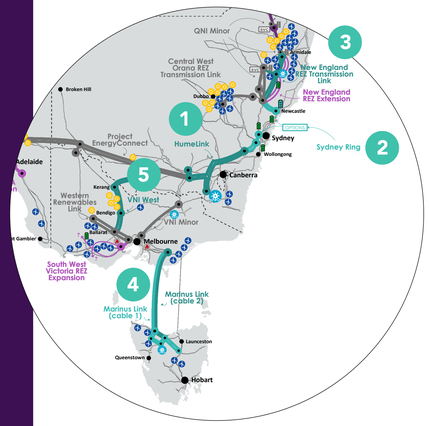
Opportunities to improve energy reliability

Actionable transmission projects, coordinating residential rooftop solar, batteries and electric vehicles as well as government energy programs underway, if delivered to schedule, can largely meet reliability standards for the 10-year forecast.

1. Actionable transmission projects

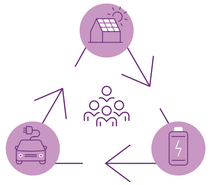
Actionable transmission projects commissioned to schedule, including:

1. HumeLink
2. Sydney Ring
3. New England REZ Transmission Link
4. Marinus Link
5. VNI West



2. Residential energy devices

Growth in the coordination of residential generation and storage devices (i.e., via virtual power plants).



3. Government programs

Current federal and state government programs for low-cost renewable generation, firming capacity and transmission identified in AEMO's Integrated System Plan, including:

- The federal Capacity Investment Scheme.
- The New South Wales Electricity Infrastructure Roadmap, and firming tenders.
- The Victorian Renewable Energy Target Auction 2.
- The Queensland Energy and Jobs Plan.
- The South Australian Hydrogen and Jobs Plan.

Expected unserved energy – additional anticipated and actionable developments