



CLIMATE ENERGY FINANCE

AEMO updates its Electricity Statement of Opportunities

Tim Buckley, Director, Climate Energy Finance, 21 February 2023

The Australian Energy Market Operator's (AEMO) update to its 2022 Electricity Statement of Opportunities (ESOO) confirms significant progress on decarbonising our grid in the last six months, coupled with the urgent need for accelerating investment in generation, long-duration storage and transmission to ensure reliable supply over the next decade.

AEMO flags a staggering 209 gigawatts pipeline of new firmed renewables project proposals – battery, solar and wind – worth over A\$250 billion in total, highlighting how decarbonisation is unlocking massive, once in a century regional employment and investment opportunities for Australia.

This demonstrates that Australian and global investors are increasingly viewing the climate and energy policy chaos of the LNP government as largely behind us.

However, with only 10 gigawatts of new capacity currently committed, there is a clear need for sustained policy certainty, accelerated grid transmission investment, expedited Renewable Energy Zones (REZs) and a continuation of the Federal-State cooperation we have seen since the election of the Albanese government.

Key to this are the federal government's \$20 billion [Rewiring the Nation](#) transmission infrastructure program, and the [Capacity Investment Mechanism](#) agreed by state and federal energy ministers late last year, which will turbocharge billions of investment in firmed renewable energy.

AEMO's reliability update only six months after its last ESOO in August 2022 is a response to a rapid run of announcements of changes in generation capacity. This includes exiting coal-fired power station capacity, the delays at the Snowy Hydro project (Snowy 2.0 pumped hydro and the Kurri Kurri gas plant) and the surging deployments of new battery investments across the National Electricity Market (NEM).

The [NSW Government's Waratah Super Battery](#) plan materially limits any risk to grid reliability from Origin's planned 2025 closure of the Eraring coal plant. This ameliorates the 12 month delay in Snowy 2.0, with commissioning now expected by December 2027.

AEMO reports a significant improvement in the grid reliability prospects over the near to medium term, with no material reliability gap out to 2027/28.

Existing gas peakers in South Australia will play a critical grid stability role short to medium term, as will EnergyAustralia's [316 MW Tallawarra B plant](#), to be commissioned at the start of 2024 in Wollongong.

A small shortfall arising from 2028 due to gas plant closures in that state is likely to be met by the surging pipeline of firmed renewable infrastructure and interstate grid connectivity projects. Governments are closely managing this to ensure grid reliability is not threatened as closure timelines are accelerated.

We are also seeing a wave of new battery firming projects coming online over this decade, supported by strong state policy initiatives across Queensland, NSW, Victoria and South Australia.

Ahead of grid transmission buildout, grid reliability is also being enhanced by another 1.3 gigawatts of committed new wind developments across the NEM in the last six months (Mortlake South and Golden Plains Wind Farms in Victoria, and Goyder South in South Australia).

With the long delayed deployment of electric vehicles (EV) and charging networks now accelerating, it is also time for AEMO to start modelling EV-to-grid charging opportunities, and to emphasise the valuable role of industrial and consumer demand response management.

This will mean rule updates and clearer price signals, which will further reduce the cost of the energy transition to consumers and industry alike.

With a likely 20 million EVs deployed in Australia within two decades, this equates to a collective new asset base of 800 gigawatt hours of batteries. This will play a key role in demand/supply balancing of ever-more rooftop solar, and in ensuring supply for evening peaks, even assuming only 10-20% of this battery bank can be utilised daily.

Whilst outside of AEMO's focus, it is excellent to see ARENA continuing to sponsor first of a kind offgrid hybrid solutions to put our globally leading mining sector on a path to decarbonisation.