2024

Wholesale Electricity Market (WEM) Electricity Statement of Opportunities (ESOO)

A 10-year outlook of electricity demand, supply, and opportunities for investment to ensure a secure and reliable electricity supply for the SWIS.

Read the full report here

Key findings:
For the 10-year outlook period (2024-25 through to 2033-34)

Supply

The near-term supply-demand outlook has improved significantly since the 2023 WEM ESOO.

Supply and demand will largely be balanced between 2025 and 2027 as result of AEMO's procurements of new capacity.

Investment required

Investment in generation, storage, demand-side response and transmission is required from 2027-28 onwards.

Continued investment is needed as electricity demand grows and aging coal plants retire.

Consumption

Electricity use supplied by the grid (excluding rooftop solar) is forecast to increase on average 4.6% annually.

This growth is driven by economic and population growth, along with the expected electrification of homes, businesses, industry and transport.

Peak demand

Peak demand is forecast to grow on average 3.7% annually.

Rising peak demand aligns with the factors driving operational consumption. Peak demands during summer and winter are converging.

A new **peak demand record was set in the SWIS in February 2024** during heatwave conditions.

Small-scale solar

Small-scale solar, or distributed photovoltaic (DPV), uptake is expected to continue with about 6.5 gigawatts (GW) of capacity to be installed in the SWIS by 2033-34.

Underpinning this growth are expected cost reductions and relatively short payback periods.

SWIS fast facts

The SWIS supplies electricity to approximately **1.2 million** WA households and businesses.

Small-scale **solar installations continue to be popular in the SWIS with around 40% of households** hosting solar PV (nearing 3 GW of installed capacity).

The SWIS covers 260,000 km – comprising 7,700 km of transmission and 93,350 km of distribution powerlines.

A **minimum demand record** was reached in September 2023 when 76% of total demand in the SWIS was met by rooftop solar.

The WEM ESOO identifies the capacity to be procured through the WEM's Reserve Capacity Mechanism around 2 years ahead of time.

In addition, under the WEM Rules, AEMO can use the Supplementary Reserve Capacity (SRC) and Non-Co-optimised Essential System Services (NCESS) mechanisms to support power system security and reliability.

AEMO has procured more than 1,000 MW of capacity to-date via the **NCESS** mechanism to help manage peak and minimum demand risks from 2024-26. AEMO has identified a residual need for the 2024-25 summer and is planning to address this through SRC.