

The National Electricity Market

The National Electricity Market (NEM) operates on one of the world's longest interconnected power systems. It covers around 40,000 km of transmission lines and cables, supplying a population exceeding 23 million.

The NEM involves wholesale generation that is transported via high voltage transmission lines from generators to large industrial energy users and to local electricity distributors in each region, which deliver it to homes and businesses.

The transport of electricity from generators to consumers is facilitated through a 'pool', or spot market, where the output from all generators is aggregated and scheduled at five-minute intervals to meet demand and to provide a better price signal for investment in faster response technologies, such as batteries and gas peaking generators.

Western Australia and the Northern Territory are not connected to the NEM. They have their own electricity systems.

NEM RECORDS

Maximum demand record

35,796 MW (29 Jan 2009)

Minimum demand record

9,666 MW (4 Oct 2025)



Driven by mild weather and rooftop solar generation, which reduces demand for energy from the grid.

Average

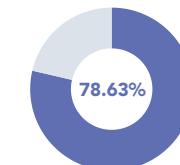
annual renewable contribution



Instantaneous

renewable contribution record

11 October 2025



NEM facts



Commenced as a wholesale electricity market in December 1998.



More than 600 registered participants, including generators, transmission and distribution network service providers, and market customers, including retailers.



Approx 181.4 terawatt hours of electricity supplied to homes and businesses a year.



\$17.7 billion traded in FY23-24.

Generation capacity

By fuel type as at December 2024

Thermal energy
Gas
13.8% | 12,177 MW
Coal
24.1% | 21,255 MW



Renewable energy

Rooftop solar
25.5% | 22,500 MW
Wind
13.3% | 11,691 MW
Grid solar
11.4% | 10,025 MW
Hydro
9.1% | 7,979 MW
Battery storage
2.7% | 2,363 MW
Biomass/other
0.2% | 143 MW

Generation supply mix

By fuel type as at December 2024

