

The Wholesale Electricity Market

In Western Australia, AEMO operates the Wholesale Electricity Market (WEM) to enable the trade of electricity within the state's main power grid, the South West Interconnected System (SWIS).

In operating the WEM, AEMO matches supply and demand in real-time.

This includes buying and selling of the lowest cost wholesale electricity and energy-related services.

Electricity is then dispatched at five minute intervals, and transported via the Western Power-operated poles and wires network.

As one of the world's largest isolated power systems, the WEM has a unique Reserve Capacity Mechanism, which is designed to ensure sufficient capacity is available to meet peak demand two years in advance.



SWIS facts



The SWIS comprises about 7,650 km of transmission and 97,000 km of distribution powerlines, owned and operated by Western Power.



Supplies electricity from more than 100 registered generation facilities to 1.2 million homes and businesses.



Approximately 17.9 TWh of energy is traded and used annually through the SWIS.



Collectively, rooftop solar is the largest generator in the SWIS. It is currently installed in about 40% of households.

SWIS records

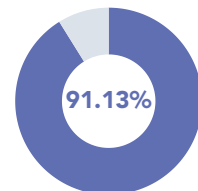
Maximum demand record **4,486 MW** (20 Jan 2025)

Minimum demand record **383 MW** (16 Nov 2025)

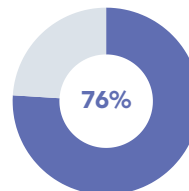


Driven by mild weather and high rooftop solar generation, which reduces demand for energy from the grid.

Renewable contribution record
20 December 2025

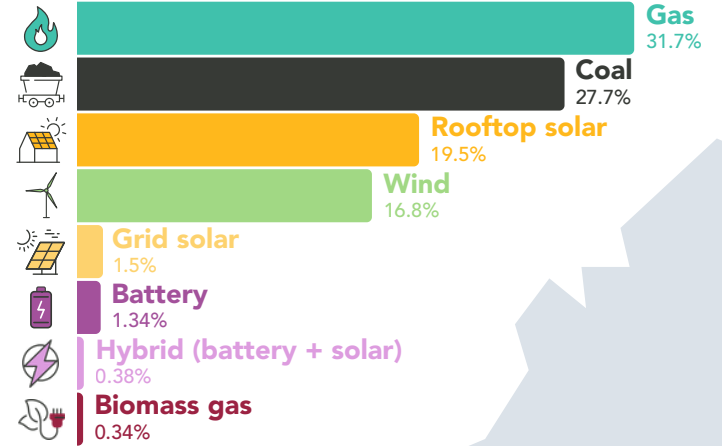


Rooftop solar contribution record
25 September 2023



The generation mix

Average annual generation by fuel type: 1 July 2024 - 30 June 2025



WA's energy transition

A decade ago, 90% of electricity through the SWIS was supplied by burning coal and gas.

Today, wind and solar generation account for around a third of annual electricity supply, peaking at about 91.13%, at times.



About us: AEMO is the independent energy market and system operator and system planner for the National Electricity Market (NEM) and Western Australia's Wholesale Electricity Market (WEM). We are a not-for-profit company, with a membership of state and federal governments (60%) and energy industry members (40%).

More info: aemo.com.au/about/who-we-are