

2026 Draft Integrated System Plan (ISP)

Every two years, AEMO publishes the Integrated System Plan (ISP) under the National Electricity Rules. It sets out how to meet consumer electricity needs and government energy policies across the National Electricity Market through to 2050.

At its core is the optimal development path (ODP) – the least-cost mix of grid-scale generation, storage, and transmission to replace retiring coal plants, meet a near doubling of electricity demand, and deliver emissions and energy targets.

Consistent with previous ISPs, the Draft 2026 ISP reaffirms that renewable energy, connected by transmission and distribution, firmed with storage and backed up by gas, is the least-cost way forward for Australia.

Network projects in the optimal development path

Committed and anticipated Development in progress

Actionable
Regulatory approval is in progress or should start now

Future ISP projects
Some investigations required to refine these long-term projects

Shading is used to differentiate projects, and/or parts within projects. Dotted lines represent uncertain scope.

Indicative wind farm

Indicative offshore wind farm

Indicative solar farm

Indicative pumped hydro

Indicative battery storage

Indicative gas-powered generation

This map shows indicative new generation and storage in 2040, and transmission projects that include new transmission lines, increase capacity by 500MW or more, and required in all scenarios by 2050.

NEM facts

The ODP proposes an extra **6,000 km** of transmission to the existing **44,000 km** across the National Electricity Market – one of the world's longest integrated power systems.

Expected energy transition to 2050 ('Step Change' scenario)

<div> <div></div> <div>Total electricity consumption to nearly double</div> </div> <div> <div>NOW</div> <div>205 TWh</div> <div>▶</div> <div>2035</div> <div>277 TWh</div> <div>▶</div> <div>2050</div> <div>389 TWh</div> </div>	<div> <div></div> <div>Total generation and storage capacity will need to triple</div> </div> <div> <div>NOW</div> <div>92 GW</div> <div>▶</div> <div>2035</div> <div>190 GW</div> <div>▶</div> <div>2050</div> <div>297 GW</div> </div>	<div> <div></div> <div>Grid-scale wind and solar to increase 5-fold</div> </div> <div> <div>NOW</div> <div>23 GW</div> <div>▶</div> <div>2035</div> <div>78 GW</div> <div>▶</div> <div>2050</div> <div>120 GW</div> </div>	<div> <div></div> <div>Distributed solar PV (rooftop solar, other distributed solar) to increase 4-fold</div> </div> <div> <div>NOW</div> <div>25 GW</div> <div>▶</div> <div>2035</div> <div>45 GW</div> <div>▶</div> <div>2050</div> <div>87 GW</div> </div>
<div> <div></div> <div>Storage capacity (batteries, virtual power plants, pumped hydro) to increase 5-fold</div> </div> <div> <div>NOW</div> <div>12 GW</div> <div>▶</div> <div>2035</div> <div>35 GW</div> <div>▶</div> <div>2050</div> <div>55 GW</div> </div>	<div> <div></div> <div>Gas-powered generation to increase (while current mid-merit plants will all retire within that period)</div> </div> <div> <div>NOW</div> <div>12 GW</div> <div>▶</div> <div>2035</div> <div>12 GW</div> <div>▶</div> <div>2050</div> <div>15 GW</div> </div>	<div> <div></div> <div>Hydro capacity to remain steady</div> </div> <div> <div>NOW</div> <div>7 GW</div> <div>▶</div> <div>2035</div> <div>7 GW</div> <div>▶</div> <div>2050</div> <div>7 GW</div> </div>	<div> <div></div> <div>Coal capacity declining</div> </div> <div> <div>NOW</div> <div>21 GW</div> <div>▶</div> <div>2035</div> <div>7 GW</div> <div>▶</div> <div>2050</div> <div>0 GW</div> </div>

Optimal development path (ODP)

AEMO works with stakeholders – including consumer groups, governments, and industry – to gather insights on future energy needs, technology costs and policy settings.

Using this input, AEMO models thousands of combinations of generation, storage, transmission and distribution investments across the NEM, shortlisting more than 20 candidate paths.

Each option is then tested against costs, benefits, scenarios and sensitivities to select the path that delivers secure, reliable electricity at the lowest overall cost while meeting energy and emissions targets – the ODP.

Cost and benefits

The annualised capital cost of all future utility-scale generation, storage and transmission and distribution infrastructure in the ODP has a present value of \$128 billion (Step Change scenario to 2050).

The transmission projects (actionable and future) in the draft ISP would repay their investment costs (\$9 billion), save consumers an additional \$22 billion in avoided costs and also deliver emission reductions valued at \$2 billion.

Consultation

In developing the Draft 2026 ISP, a record level of stakeholder consultation was undertaken and formal submission considered.

<div> <div></div> <div>1,400 stakeholders engaged</div> </div>	<div> <div></div> <div>17 webinars hosted</div> </div>
<div> <div></div> <div>37 presentations and reports</div> </div>	<div> <div></div> <div>241 written submissions</div> </div>

Next steps: AEMO welcomes stakeholder feedback on the Draft 2026 ISP, with written submissions requested by **13 February 2026** to prepare the final 2026 ISP by the end of June 2026.

To learn more about the ISP and how to contribute, [view the ISP Toolkit](#).

