The Australian Energy Market Operator (AEMO) has published the 2022 ISP, a 30-year roadmap for essential and efficient investment in the National Electricity Market (NEM).

The 2022 ISP supports Australia’s highly complex and rapid energy transformation, switching from higher-cost, high-emission energy to lower-cost renewable energy, doubling capacity to power transport and industry, and at all times providing consumers with reliable, secure and affordable power.

Consultation
The 2022 ISP is based on rigorous economic and engineering analysis, and almost two years’ in-depth stakeholder engagement with energy consumers and providers, State and the federal governments, and energy regulators and analysts.

- Over 1,500 individual stakeholders
- Discussions convened through 31 webinars and 39 reports
- Detailed feedback received through 198 submissions

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

- Storage capacity to increase by a factor of 30
- Grid-scale wind and solar to increase 9-fold
- Distributed solar PV to increase 5-fold
- Electricity usage from the grid to nearly double
- Gas-fired peaking plants to increase
- Coal generation to be withdrawn

Optimal development path (ODP)
The ODP identifies five projects as immediately actionable which should progress as urgently as possible – Humelink, VNI West, Marlinus Link, Sydney Ring and New England REZ Transmission Link.

Net benefits
The transmission projects within the ODP are forecast to deliver scenario-weighted net market benefits of $28 billion, returning 2.2 times their cost of approximately $12.7 billion.

Although they represent just 7% of the total generation, storage and network investment in the NEM, they will provide investment certainty, optimise consumer benefits, and embed flexibility to reduce emissions faster if needed.

Considerations
- Market reforms
- Government policies
- Economic growth
- Emission targets
- Grid technologies and services
- Consumer investment in DER

2022 Integrated System Plan (ISP)