

Changing Energy Market

March 2022: Australia's energy market is in transition. Cleaner, renewable sources of energy are being developed to mitigate the impacts of climate change and meet electricity demand as coal-fired power stations reach the end of their operational lives and are retired over the next two decades.

Whole-of-system planning for Australia's energy transition is managed by the Australian Energy Market Operator (AEMO) through its Integrated System Plan (ISP).

The ISP sets out a roadmap for the efficient development of the National Electricity Market (NEM) with the objective to: *maximise value to end consumers by designing the lowest cost, secure and reliable energy system capable of meeting any emissions trajectory determined by policy makers at an acceptable level of risk.*

The draft 2022 ISP is in development and forecasts the most likely scenario is that the NEM will need 135 GW of solar, 70 GW of wind and 45 GW of storage by 2050. This is triple the previous forecasts for renewable energy capacity and means the NEM will require nine-times the utility-scale variable renewable energy capacity that it has now.

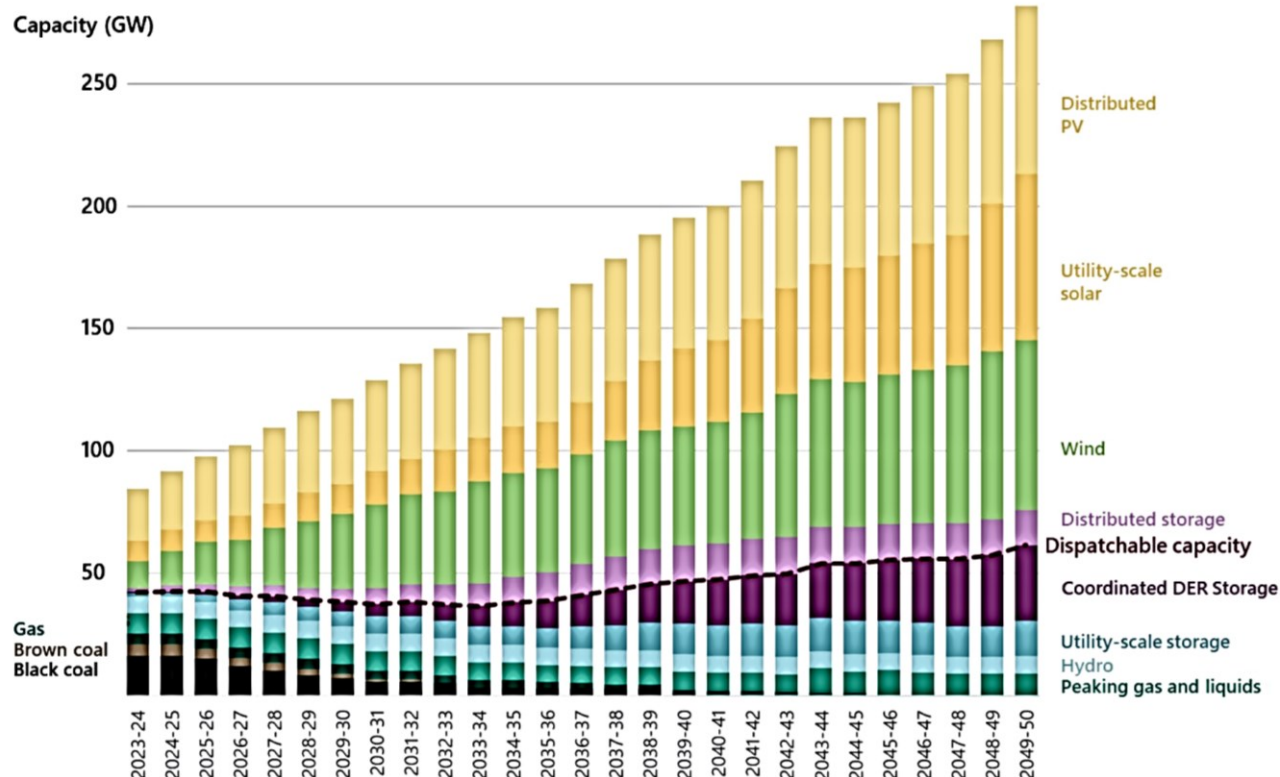
To facilitate the transition governments have set renewable energy targets and AEMO has identified optimal renewable energy zones with high-quality renewable energy resources and proximity to existing or planned network infrastructure.

“ An affordable, reliable energy supply underpins our economic recovery, and today is further proof renewables is playing a central role. For the fourth year in a row, Queensland’s renewable revolution is driving power prices down across the state. ”

The Honourable Mick de Brenni
Minister for Energy,
Renewables
and Hydrogen

Media statement, 11 June 2021

Figure 1 Forecast NEM capacity to 2050, Step Change scenario, with transmission



Source: AEMO 2021, Draft 2022 Integrated System Plan

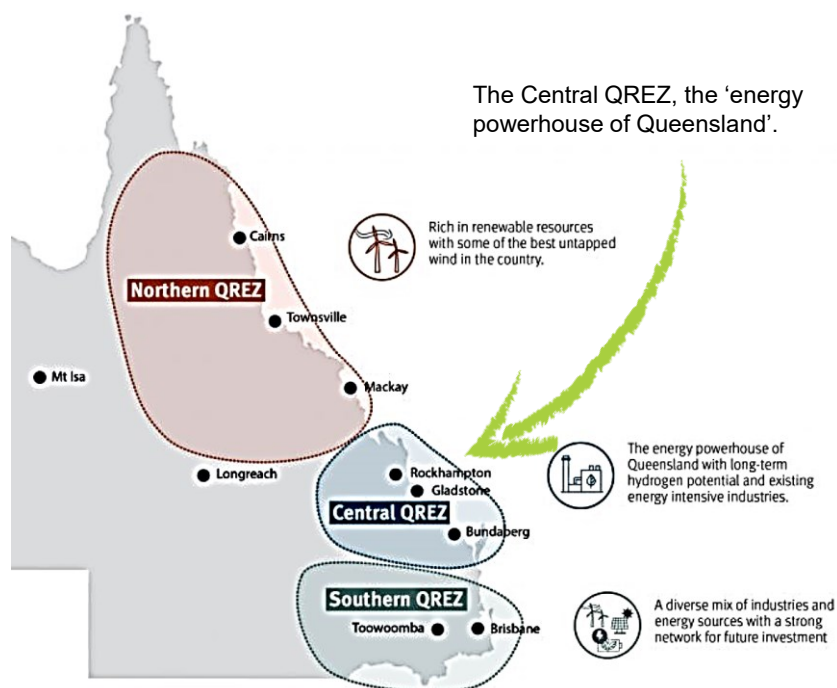
In June 2017 the Queensland Government committed to a renewable energy target of 50% of all energy consumed in Queensland to come from renewable sources by 2030. Currently, about 20% of electricity used in Queensland is generated from renewable energy sources. Meeting the 2030 target will require harnessing the state's considerable renewable energy potential.

AEMO has identified three Queensland renewable energy zones (QREZ); Northern, Central and Southern (see below) and the draft 2022 ISP projects development of a further 47 GW of new variable renewable energy capacity in Queensland by 2050.

The Queensland Government has committed \$145 million to establishing the QREZs through strategic network investments, streamlining the development of new renewable energy projects and working to match new and existing industrial energy demand with cheap, clean renewable energy.

The area designated as the Central QREZ is currently the energy powerhouse of Queensland. It is centrally located in a strong part of the network and home to significant renewable energy resources.

In June 2021 the government announced a \$2 billion investment in energy assets and the Queensland Renewable Energy and Hydrogen Jobs Fund. The Premier has also announced the development of a new ten-year energy plan that will set out the government's intentions for Queensland's energy system.



Source: epw.qld.gov.au/about/initiatives/renewable-energy-zones

More information

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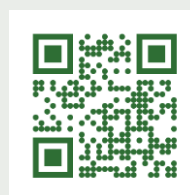
Queensland Department of Energy and Public Works – Queensland's Renewable Energy Target



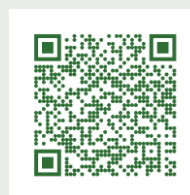
Queensland Department of Energy and Public Works – Queensland Renewable Energy Zones



Australian Energy Market Operator - aemo.com.au



The National Electricity Market Fact Sheet (PDF)



For more information about Epuron's projects in Central Queensland please visit www.epuron.com.au