

Creating value in transition

PUBLIC SUMMARY REPORT



STRATEGY

ENERGY & CARBON MARKETS

NSW REZ FOCUS THE WHAT, WHERE AND WHEN





AUGUST 2022

Key Points – NSW REZs

Central-West Orana (CWO) REZ formally declared 5
November 2021

• CWO REZ Access Scheme terms and conditions order and guide, template for performance standards, and guidelines to REZ access scheme declarations published 15 July 2022

CWO REZ Access Scheme declaration to be published
October 2022

 NSW Consumer Trustee targeting first combined competitive tender for grant of access rights and Long-Term Energy Service Agreements (LTESAs) on 4 October 2022

 Selected LTESA and access rights bids to be announced March 2023

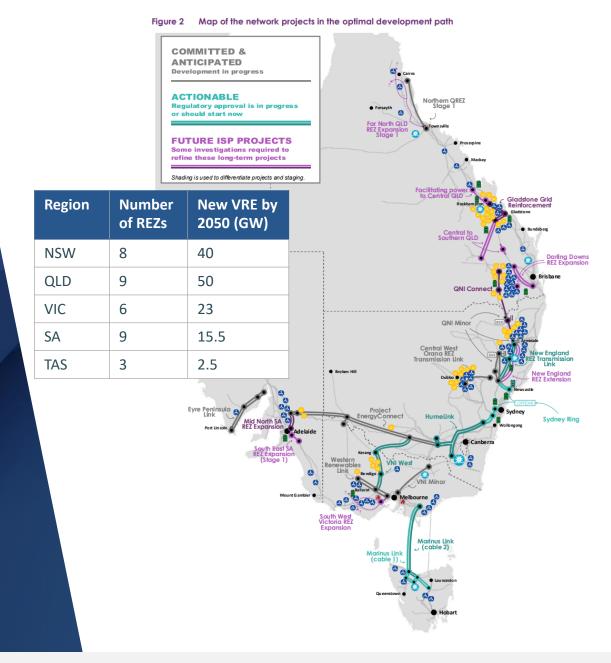




ISP REZ Overview

Key Points

- AEMO's 2022 ISP describes a transition of the NEM from centralised coal-fired generation to a diverse portfolio dominated by firmed variable renewable energy (VRE)
- REZs are concentrations of VRE that **coordinate network and renewable investment** and encourage a holistic approach to regional employment, economic opportunity and community participation.
- The latest ISP continues the trend toward REZs, which necessitate significant transmission investment.
- The ISP Optimal Development Path proposes to install 10,000 km of new transmission to deliver renewable energy projects at a total cost of \$12.7 Bn for \$28 Bn net market benefits. This is 7% of total investment in NEM, generation, storage and network to 2050.
- The 2022 ISP envisages a likely **tripling** of utility-scale VRE by 2030, with **nine-fold** current VRE capacity by 2050. Much of this resource is envisaged to be built in REZs.
- There are a total of 41 REZs across the NEM (including 6 offshore wind zones) considered in the 2022 ISP







Northern Territory government Darwin to Katherine System Plan outlines plans for renewable hydrogen zone, as well as a new rewewable energy hubs close to existing transmission lines to significantly reduce costs and maximise generation output.

Western Australia's State-owned coal power stations will be retired by 2030 - An estimated \$3.8 billion will be invested in new green power infrastructure in the South West Interconnected System (SWIS) - including wind generation and storage - to ensure continued supply stability and affordability.

Building on the advantage of ProjectEnergy Connect & Eyre Peninsula Link, South Australia REZ Future ISP Projects include South East South Australia REZ Expansion, Mid North SA REZ Expansion

Renewables, Climate and Future Industries Tasmania (ReCFIT) has been announced as the REZ Coordinator to provide a single and consistent point of contact for industry and the community to support REZ development.

Regional Initiatives

As part of the Queensland Government's COVID-19 Economic Recovery Plan, the Queensland Government committed \$145 million to establish 3 Queensland Renewable Energy Zones (QREZ) in northern, central and southern Queensland to help manage the energy transformation, deliver jobs, diversify the economy and lower emissions.

The Energy Corporation of NSW (EnergyCo) is the NSW Government-controlled statutory authority that will lead the delivery of NSW REZs. EnergyCo will coordinate REZ transmission, generation, firming and storage projects to deliver efficient, timely and coordinated investment. EnergyCo will take a holistic view of REZ planning and consultation and will work with communities to ensure the benefits of investment are equitably shared within host regions.

VicGrid, a new division established within the Department of Environment, Land, Water and Planning in July 2021, has been tasked with co-ordinating the overarching planning and development of Victorian REZs. This body will also oversee investment decisions related to the \$540 million REZ fund that will be used to strengthen the grid and unlock the potential of the REZs.

NSW Renewable Energy Zones – what, where and when?

The NSW Government's <u>Electricity Strategy</u> and <u>Electricity Infrastructure Roadmap</u> include a plan for 5 Renewable Energy Zones (REZs) in the Central-West Orana, New England, South-West, Hunter-Central Coast and Illawarra regions. These 5 REZs are named in the NSW <u>Electricity Infrastructure Investment Act</u> 2020. NSW REZs will deliver affordable, reliable electricity generation to help replace NSW's existing power stations as they come to their scheduled end of operational life.

REZ Name	New network capacity (GW)	#Projects - ROI	Generation & storage capacity (GW) - ROI	Expected Private investment (\$Bn)	Status	Tibooburra Bourke Central-West Orana Atmidale Coffs Harbour Renewable Energy Zone
Central-West Orana	3	113	27	5	Formally declared 5 November 2021	Broken Hill Obar Nyngan Dubbo Dubbo
New England	8	80	34	10.7	Formally declared 17 December 2021	Indicative South-West Renewable Energy Zone Wentworth Balanzia
South-West	2.5	49	34	2.8	Draft declared 25 March 2022	Balranald Hay Wagga Wagga Albury Batemans Bay
Hunter – Central Coast	NA	87	40	100	ROI closed 4 February 2022	Renewable Energy Zones Indicative Renewable Energy Zones (Geographical location yet to be mapped)
Illawarra	NA	NA	NA	NA	ROI closed 22 July 2022	Major Roads and Highways 330kV Network 500kV Network





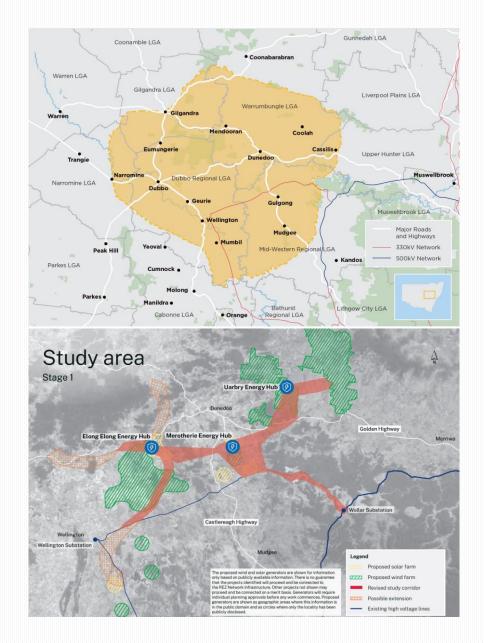
Central West Orana REZ



CWO Overview

Key Points

- The CWO is the first of five NSW REZs as part of an orderly transition away from coal-fired generation
- It is characterised as a 'modern day power station', connecting new wind and solar VRE + energy storage and will set the benchmark for future REZs across Australia
- The CWO REZ is about 20,000 square kilometres in area, centred on Dubbo and Dunedoo in Central-West NSW
- Stage 1 of the CWO REZ is in development and will unlock 3 GW of new network capacity by the mid-2020s, enough to power 1.4 million homes
- Three Energy Hubs are proposed for Stage 1 of the CWO REZ, at localities close to major planned wind and solar developments
- AEMO expects 2.1 GW of new VRE capacity will be installed in the CWO REZ by 2026-27, 4.6 GW by 2030 and 7.7 GW by 2040
- New HV transmission lines will be required to transfer electricity from the REZ Energy Hubs to the existing HV network
- The CWO REZ will attract around \$5.2 billion in private investment by 2030, supporting up to 3,900 construction jobs and 500 ongoing jobs





NSW CWO REZ Access Scheme

The NSW Government and EnergyCo (Infrastructure Planner) released four documents around CWO REZ Access Scheme on 15 July 2022





Renewable Energy Zone (Central-West Orana) Access Scheme Order 2022

Draft declaration to operationalise the terms and conditions of the CWO REZ access scheme as an order by Matthew Kean MP, Minister for Energy, under the *Electricity Infrastructure Investment Act* 2020

Submissions from public 15 July to 12 August 2022 - <u>electricity.roadmap@dpie.nsw.gov.au</u> Subject: 'Your Name/Organisation – CWO REZ Draft Access Scheme Declaration'

CWO REZ Access Rights and Scheme Design Position Paper

Plain English guide to draft declaration

- policy design and purpose of the CWO REZ Draft Access Scheme Declaration

 proposed regulations that will enable the Scheme

- modifications to the NER
- overview of the streamlined REZ connection process option
- minimum regulated components of access fees for community and employment purposes
- Policy rationale of elements of access rights and scheme design

Follows public consultation on a draft position paper.



Guidelines for Access Scheme Declarations

Information on how the Minister for Energy will exercise the function of declaring access schemes. Follows public consultation on a draft.



Template for Performance Standards for CWO REZ

The final NSW REZ Access Standards for CWO REZ first access rights allocation. Follows public consultation on a draft in collaboration with Transgrid and AEMO.



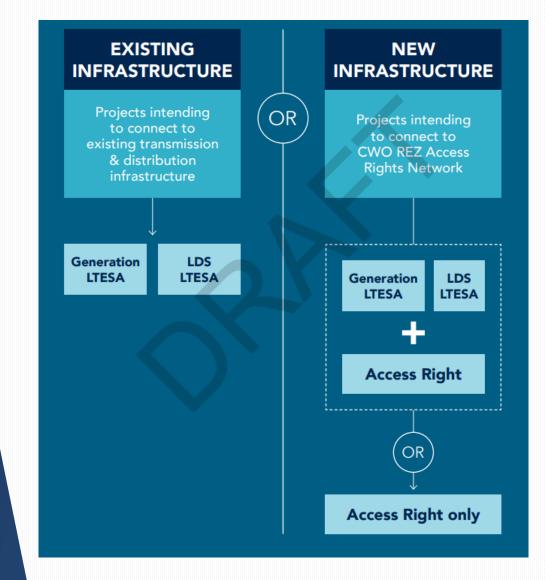


LTESA



Simple Explanation of LTESA Key Points

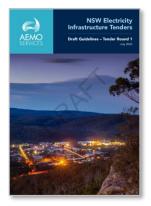
- A Long-Term Energy Service Agreement (LTESA) is a financial derivative contract between an LTES Operator (party responsible for LTES operation and management) and the Scheme Financial Vehicle is intended to provide the LTES Operator with mitigation against unexpectedly low electricity prices and exposure to upside higher electricity prices with the aim of lowering the cost of project capital, reducing the risk profile for investors.
- Generation LTESA A series of options for a cash settled swap for a contract term of up to 20 years. Available to all projects in NSW committed after 14 November 2019. Projects outside of a REZ must show 'Outstanding Merit' (regulations for meaning not yet made)
- Long-Duration Storage LTESA A series of options to receive an annuity payment for a contract term of 14 years for chemical batteries and 40 years for pumped hydro. Available to all projects in NSW committed after 14 November 2019. Must be able to dispatch continuously at rated capacity for at least 8 hours.
- Firming LTESA Details to be provided in future Tender Rounds





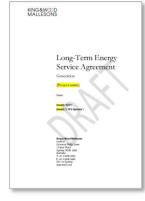
LTESAs and Access Rights

AEMO Services (NSW Consumer Trustee) released five documents in <u>Draft Tender Pack</u> for Long-Term Energy Service Agreements (LTESAs) and Access Rights on 18 July 2022



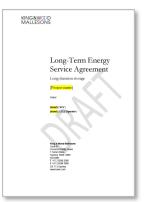
Draft Tender Guidelines

The Draft Tender guidelines include Round 1 details, information for all Tender Rounds, descriptions of the LTESA and Access Rights Products that may be tendered in any Tender Round, the tender and assessment process, assessment criteria and conditions, the regulatory context and legal agreements.



Draft Generation LTESA

The Draft Generation LTESA contains a description of definitions and interpretation, term, project construction and operation, swaps and payment terms, material events, and other terms. For completion by a generation project LTES Operator to be responsible for the operation and management of the generation facility, and the Scheme Financial Vehicle (SFV).



Draft Long-Duration Storage (LDS) LTESA

The Draft LDS LTESA contains a description of definitions and interpretation, term, project construction and operation, annuity products and payment terms, material events, and other terms. For completion by an LDS project LTES Operator to be responsible for the operation and management of the LDS facility, and the SFV.



Draft Tender Rules

The Draft Tender Rules is designed to help potential proponents to register for the tender to be run by the Consumer Trustee; outlining the scope, structure and process proposed for tender rounds; begin preparing applications; and ask clarification questions.



Draft Project Development Agreement (Without Access Right)

The Draft Project Development Agreement contains a description of definitions and interpretation, term, project development and construction, social licence commitments, and other terms. For completion by an LTES Operator awarded an LTESA to develop and construct the project and perform the social licence commitments, and the SFV.



LTESAs and Access Rights Key Points

- The Draft Tender Pack covers initial allocation of CWO Access Rights under the draft CWO REZ Access Scheme Declaration
- Operators of proposed renewable generation projects of more than 30MW in NSW should review the draft generation LTESA and the draft project development agreement to consider commercial terms in preparation for a bid in the tender process
- Operators of proposed LDS projects in NSW should similarly review the draft LDS LTESA and the draft project development agreement in preparation for a bid in the tender process
- Operators of proposed LDS projects in NSW must ensure they can dispatch at rated capacity continuously for at least 8 hours
- Tender rules are intended to apply to all future Tender Rounds run by the Consumer Trustee as the competitive process for LTESAs and/or Access rights until replacement at the discretion of the Consumer Trustee

Table: Indicative tender size for LTESAs in this round

Table: Timeline

Item	Indicative Tender Size	Location	Target Capacity Entry Dates
Generation LTESA	2500 GWh p.a.	All NSW	COD by 1 January 2025
LDS LTESA	600 MW	All NSW	COD by 1 January 2027

Table. Timeline						
Step	Indicative Date					
Tender Registration Date	August 2022					
Tender Commencement Date	4 October 2022					
Project Bid Closing Date and Time	28 October 2022 @ 5pm AEST					
Invite to submit Financial Value Bid	Mid-December 2022					
Financial Value Bid Closing Date	Late January 2023					
Notify unsuccessful proponents	March-April 2023					
Announced Selected bids	March 2023					





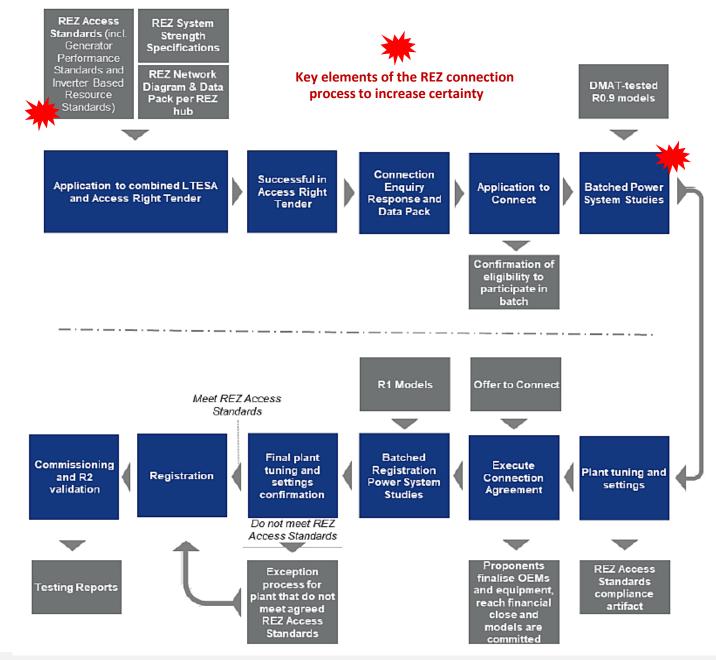
Streamlined Connections



Proposed revised streamlined REZ connection process

KEY POINTS

- Streamlined REZ connection process to achieve time and cost efficiencies may be implemented after the declaration is gazetted but before any participants commence the connection process
- In the interim, those seeking to advance connections ahead of any streamlined connection process should contact the Infrastructure Planner
- If a REZ connection process is not implemented, connection will continue to be governed by the NER
- Centrally provided system strength by NSP delivering access rights network
- Designated network asset framework under NER not to be applied to access rights network (dedicated connection assets of any length can connect)





Key REZ Considerations

- Network augmentation is the simplest form of a REZ
- Regions are going it alone, regulators playing catch up
- Funding mechanisms and risk allocation remains unclear
- No one REZ will be the same, and they are much more than HV lines
- Coal retirements are a driver but its not clear REZs are the solution?
- Issues around REZ firming infrastructure and potential role in provision of system services still being explored
- Huge anticipated build of REZ generation and transmission infrastructure will come with substantial social licence, skills, labour, plant and materials issues





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