

# NSW Electricity Infrastructure Roadmap Market Briefing Note

Proposed methodology for system  
strength charge in CWO REZ

December 2022



# Purpose

This market briefing note provides information to projects seeking CWO REZ access rights in Tender Round 2, expected to be held in Q2 2023. It sets out the proposed methodology for calculating a charge for centrally provided system strength in the Central-West Orana Renewable Energy Zone (CWO REZ).

EnergyCo as the Infrastructure Planner and AEMO Services as the NSW Consumer Trustee, will conduct targeted engagement sessions with potential proponents and other stakeholders to test the proposed methodology. The final decision on matters contained within this document will rest with the Infrastructure Planner and/or the Consumer Trustee as appropriate.

## Briefing context

Projects seeking access rights in CWO REZ must make certain contributions to the REZ costs either via access fees or other payments. These contributions fall broadly into four categories:



**A community and employment component.** This component was previously outlined in draft by AEMO Services in its [Tender 1 Guidelines](#).



**A system strength component.** This briefing note sets out the proposed methodology for calculating the system strength component.



**Scheme administration component.** This is an amount to recover the costs incurred by EnergyCo in administering the access scheme for the REZ. This component of the access fee was previously outlined in draft by AEMO Services in its [Tender 1 Guidelines](#).



**A H2P network capital component.** A contribution by generators to network assets from identified substation hubs to project gates. The proposed methodology for calculating this contribution is outlined in a separate [briefing note](#).

## Background to proposed system strength charge

In December 2021, the NSW Government consulted on a model for centrally-provided system strength in the CWO REZ. The NSW Government then confirmed the model it intends to implement, and the rationale for this model in a positions paper published July 2022. Under this model:

- The Network Operator for the access rights network will provide the system strength expected to be required for the indicative initial allocation of access rights. The draft CWO REZ access scheme declaration included an indicative initial allocation of access rights representing 5.84 gigawatts (GW) of generation.
- The efficient costs of providing this system strength for the initial allocation will be included in the Network Operator's revenue determination and recoverable from the Scheme Financial Vehicle.
- The Scheme Financial Vehicle will then be substantially reimbursed through a charge collected from projects granted access rights in the initial access right allocation.
- Projects granted access rights for maximum capacity within the initial allocation will not be exposed to the system strength charge under the National Electricity Rules (NER).
- Any additional and ongoing system strength requirements for CWO REZ will be met by the system strength service provider under the NER.

This model is broadly reflective of changes currently being implemented in the National Electricity Market, to allow for more efficient upfront and centralised planning and provision of system strength. Further, the CWO REZ is being developed in the context of a transforming electricity system, where the retirement of coal-fired power stations and the development of new variable renewable generation in locations far from existing synchronous generation and equipment, will see significantly increased demand for system strength. This is also expected to come with higher than historical costs for connecting projects, to meet this increased demand.

This paper sets out the proposed methodology for setting the system strength charge for projects granted access rights or increased maximum capacity in the initial allocation under the access scheme declaration for CWO REZ.

## Proposed methodology for system strength charge

Consistent with the December 2021 consultation paper, it is proposed that projects granted access rights in CWO REZ in the initial access right allocation will pay a charge based on a fixed allocation methodology. Under this methodology projects will be required to pay a fixed charge per megawatt (MW) of nameplate capacity set prior to the allocation of access rights in a competitive tender.

The charge is proposed to be set by:

- Estimating the system strength required in the CWO REZ for the generation capacity that may be granted access rights in the initial access rights allocation.<sup>1</sup> For the purposes of setting the system strength charge, it is proposed that this requirement be estimated assuming a total of 5.84 GW of generation capacity may be granted access rights in the initial allocation in CWO REZ. An indicative estimated system strength requirement for the CWO REZ is set out in the next section.
- Calculating a total cost of meeting the estimated system strength requirement. This cost is expected to be published in Q1 2023 as part of further information on the costs for projects connecting in CWO REZ.
- Allocating the total estimated cost to projects on a pro-rata basis per megawatt of nameplate generation capacity over time.

The proposed formula for calculating the system strength charge is set out below.

$$\text{System strength contribution / MW} = \text{REZ system strength requirement (MVA)} \times \text{unit cost / indicative total generation capacity in initial access rights allocation (GW)}$$

1. This indicative total generation capacity figure is consistent with the proposed initial maximum aggregate capacity in the draft CWO REZ access scheme declaration and is proposed to be adopted for the purposes of setting the system strength charge only. The maximum generation capacity which is ultimately granted access rights in the CWO REZ initial allocation may be different, subject to the application of the final CWO REZ access scheme declaration and the allocation of access rights.

## Estimated CWO REZ system strength requirement

It is proposed that the system strength charge be calculated based on an estimate of the system strength that would be required to meet the collective system strength demand of projects granted access rights in the initial access rights allocation in CWO REZ.

An indicative estimate of the system strength requirement for the CWO REZ is up to **2,000 MVar**, for an indicative total generation capacity in the initial access rights allocation of **5.84 GW**. This indicative estimate has been produced for the purposes of consultation on the proposed system strength charge and may be revised when setting the actual system strength charge.

Further, a final estimate of system strength to be procured and delivered by the network operator in the REZ may be different. It is not intended that the system strength charge will be revised to reflect any difference between the estimate of system strength used to set the charge and the final estimate of system strength delivered by the Network Operator in the REZ, should it arise. This approach has been adopted to provide certainty to participants seeking access rights on the quantum of the system strength charge in advance of a competitive tender.

## About CWO REZ

The NSW Government is in the development phase for the State's first Renewable Energy Zone (REZ) in the Central-West Orana region. The Central-West Orana REZ is approximately 20,000 square kilometres centred by Dubbo and Dunedoo, on the land of the Wiradjuri, Wailwan and Kamilaroi people.

EnergyCo is delivering the Central-West Orana REZ to provide a clean, affordable and reliable power supply for energy consumers across NSW. The REZ will initially unlock at least three GW of new transmission capacity from solar, wind and storage projects within the next decade, which is enough to power 1.4 million homes.

## For more information on the CWO REZ

For more information about the Central-West Orana REZ, you can visit the EnergyCo [website](#), contact EnergyCo on [contact@energyco.nsw.gov.au](mailto:contact@energyco.nsw.gov.au) or phone 1800 032 101 (9am to 5pm, Monday to Friday).

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