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Central-West Orana Renewable Energy Zone: Headroom Assessment – Final Decision

January 2025

Acknowledgement of Country

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1. Headroom Assessment

1.1. Overview

The Energy Corporation of NSW (EnergyCo), in its capacity as Infrastructure Planner for the Central-West Orana Renewable Energy Zone (REZ), has conducted a headroom assessment in accordance with clause 10 of the *Renewable Energy Zone (Central-West Orana) Access Scheme Declaration 2022* (Access Scheme Declaration).¹

The purpose of a headroom assessment is to determine “headroom”, being the increase in aggregate maximum capacity in a capacity period² that could be allocated under access rights for the Central-West Orana REZ access rights network (access rights network) without resulting in forecast curtailment on the access rights network exceeding the target transmission curtailment level of 4.37% (TTCL).

EnergyCo has calculated that the aggregate maximum capacity could be increased by 1.86 gigawatts (GW) without forecast curtailment exceeding the TTCL. The basis for the decision is set out in section 2.

Summary of Final Headroom Assessment decision

- **Headroom determined: 1.86 GW**
- Previous aggregate maximum capacity cap: 5.84 GW
- New aggregate maximum capacity cap: 7.7 GW

The basis of EnergyCo’s calculation on the amount of additional capacity that could be allocated in the Central-West Orana REZ is explained in this document.

This decision document includes the following information:³

- Background on the Central-West Orana REZ headroom assessment (section 1.2); and
- Consideration of consultation that EnergyCo has undertaken on the Headroom Assessment (section 1.3); and
- the headroom available in each capacity period (section 2.1); and

¹ As amended by the *Renewable Energy Zone (Central-West Orana) Access Scheme (Amendment) Order 2024 (dated 5 April 2024)*, available at: [Government Gazette No 116 of Friday 5 April 2024 \(nsw.gov.au\)](https://www.nsw.gov.au/government-gazette).

² There is currently a single 24-hour capacity period under the Access Scheme Declaration.

³ Clause 10(5)(c) of *Renewable Energy Zone (Central-West Orana) Access Scheme Order 2022*

- the forecast curtailment based on the increased aggregate maximum capacity cap (section 2.2); and
- material assumptions about the aggregate expected capacities profiles or the technology mix of potential future projects made as part of the headroom assessment (section 2.3).

1.2. Background

Under the Access Scheme Declaration, the initial limit on maximum capacity that could be allocated under access rights to generation and storage projects is 5.84 GW (the initial aggregate maximum capacity cap). The initial aggregate maximum capacity cap was determined based on an assumed transfer capacity of the access rights network of 3 GW, being the intended network capacity of the Central West Orana REZ when the Access Scheme Declaration was made.

In December 2023, the *Renewable Energy Zone (Central-West Orana) Order 2021* was amended to increase the intended network capacity of the Central West Orana REZ from 3 GW to 6 GW, noting the network infrastructure will initially have a transfer capacity of 4.5 GW.⁴ This was reflected in the new network infrastructure authorised by the Consumer Trustee in May 2024 which authorises a network infrastructure project with an initial transfer capacity of 4.5GW.⁵ A determination of the transfer capacity of the access rights network has been made at 4.5 GW⁶. The headroom assessment has been conducted based on this transfer capacity.

Because the transfer capacity of the access rights network has increased from 3GW to 4.5GW since the Access Scheme Declaration was made and initial aggregate maximum capacity cap specified, EnergyCo formed the view that there was likely to be material headroom and commenced a headroom assessment process.⁷

An increase in the aggregate maximum capacity cap under the Access Scheme Declaration will provide certainty to the market and communities on the amount of generation and storage development likely to occur in the near to medium term based on the transfer capacity of the access rights network. The identification of headroom also promotes the efficient utilisation of the authorised access rights network, once constructed.

The Central-West Orana REZ Access Scheme is the first Access Scheme being developed under the *Electricity Infrastructure Investment Act 2020* and this is the first headroom assessment conducted

⁴ *Renewable Energy Zone (Central-West Orana) Order 2023*: <https://gazette.nsw.gov.au/gazette/2023/12/2023-580.pdf>

⁵ Notice of Authorisation Enabling CWO REZ Network Infrastructure Project: <https://aemoservices.com.au/-/media/services/files/publications/authorisation-function/notice-of-authorisation-cwo-enabling.pdf?la=en>

⁶ *Transfer Capacity Determination under the Central-West Orana Renewable Energy Zone Access Scheme*.

⁷ Under the Access Scheme Declaration, EnergyCo as the infrastructure planner may conduct a headroom assessment whenever it forms the opinion that there will likely be material headroom. Clause 10(1)(c) of *Renewable Energy Zone (Central-West Orana) Access Scheme Order 2022*.

under an Access Scheme. EnergyCo, as Infrastructure Planner, has exercised its discretion to determine the increase in additional maximum capacity as a result of the headroom assessment and has taken a conservative approach to calculating the increase in maximum capacity that can be allocated to generation and storage projects as a result of the increase in the transfer capacity of the access rights network.⁸

1.3. Consultation on the Draft Headroom Assessment

EnergyCo published a notice of its Draft Headroom Assessment on 1 August 2024. The document was open for consultation from the date of publication until 5 September 2024.

Overall, 14 submissions were received and EnergyCo has considered each of these submissions when making a final decision on the headroom available in the Central-West Orana REZ.

In response to submissions received during the consultation period, EnergyCo has published a fact sheet to provide accessible information on the headroom process and the impacts it will have in the REZ. The intention of the document is to provide a plain English explanation of this process.

1.2. More information

For more information on headroom and headroom assessments please refer to the [Central-West Orana Renewable Energy Zone Access Scheme Target Transmission Curtailment Level & Headroom Assessment Method](#) paper.

Future headroom assessments may further increase the aggregate maximum capacity cap

The aggregate maximum capacity cap determined as a result of this headroom assessment **may not be the final limit** on aggregate maximum capacity that may be allocated to generation and storage projects under access rights for the Central-West Orana REZ access rights network. EnergyCo will conduct further headroom assessments as required or permitted by the Access Scheme Declaration, including conducting a headroom assessment as soon as practical following the completion of the initial allocation⁹ and every two calendar years during the period of six calendar years after the initial allocation is complete.¹⁰

⁸EnergyCo has discretion under the Access Scheme Declaration to determine that the amount of additional maximum capacity in a capacity period should be less than the headroom calculated under a headroom assessment under Schedule 3, including without limitation after taking into account relevant power system limits - clause 10(3) of the Access Scheme Declaration.

⁹ Clause 10(1)(a) of *Renewable Energy Zone (Central-West Orana) Access Scheme Order 2022*.

¹⁰ Clause 10(1)(b) of *Renewable Energy Zone (Central-West Orana) Access Scheme Order 2022*.

2. Final Decision

2.1. Headroom

Headroom represents the additional maximum capacity of generation and storage projects that could be granted under access rights in all relevant capacity periods without forecast curtailment exceeding the TTCL.

At the date this decision is made, no projects have been allocated access rights for the access rights network, and the previous aggregate maximum capacity in the single 24-hour capacity period under the Access Scheme Declaration is 0 MW.

EnergyCo has undertaken a headroom calculation in accordance with Schedule 3 of the Central-West Orana Access Scheme Declaration and the Central-West Orana Renewable Energy Zone Access Scheme Target Transmission Curtailment Level & Headroom Assessment Method.¹¹

EnergyCo has identified that the aggregate maximum capacity cap can be increased by 1.86 GW without forecast curtailment exceeding TTCL (see section 2.3).

2.2. Increase to the Aggregate Maximum Capacity Cap

The previous aggregate maximum capacity cap for the CWO REZ was 5.84 GW. As EnergyCo has determined that there is 1.86 GW of headroom, the new aggregate maximum capacity cap under the Access Scheme Declaration is 7.7 GW.

2.3. Forecast Curtailment

The forecast curtailment before and after the headroom determination were calculated in accordance with the Central West Orana Renewable Energy Zone Access Scheme Target Transmission Curtailment Level & Headroom Assessment Method Paper.¹²

Before the headroom assessment, the forecast curtailment on the access rights network is 0%, as at the date this decision is made there are no access right holders under the Access Scheme Declaration.¹³

¹¹ Chapter of paper

¹² Relevant chapter of paper

¹³ Note that modelled planting of generation (solar and wind) up to the initial aggregate maximum capacity of 5.84 GW, for 3 GW of transfer capacity, results in forecast curtailment of 4.37%.

After the headroom assessment, the forecast curtailment (based on the assumptions specified in section 2.4) of the new aggregate maximum capacity cap of 7.7 GW, based on an access rights network with 4.5 GW of transfer capacity, is 0.25%.

2.4. Assumptions

For the purposes of this headroom assessment, EnergyCo has considered the successful applicants that have been conditionally awarded access rights from the Access Application Process conducted in 2024¹⁴. Using this information, the following assumptions were made:

Aggregate expected capacity profiles

EnergyCo represented each successful applicant using the expected capacity profiles that were used as part of the TTCL assessment in the previous [access rights application process](#). These profiles may be those provided by the relevant applicant, or as determined by EnergyCo following clarifications with the relevant applicant and considering other relevant information.

Technology mix of successful applicants

The technology mix is that of the projects applying for access award, totalling 7.7 GW:

Solar and solar hybrid: 3,056 MW

Wind: 2,951 MW

Stand-alone battery: 1,700 MW (2 hr)

¹⁴ <https://www.energyco.nsw.gov.au/industry/central-west-orana-rez-access-rights-application-process>