

This document answers frequently asked questions about the Central-West Orana REZ Transmission

What is a “Renewable Energy Zone (REZ)”?

Renewable Energy Zones (REZs) combine renewable energy generation (such as wind and solar), storage (such as batteries and pumped hydro), and high-voltage poles and wires to deliver energy to the homes, businesses and industries that need it. By connecting multiple energy generation sources and storage in the same location, REZs capitalise on economies of scale to deliver cheap, reliable and clean electricity for NSW.

The first REZ to be rolled out under the NSW Government’s Electricity Strategy and Electricity Infrastructure Investment Roadmap is the Central-West Orana REZ. The NSW Government will also develop REZs in the New England, South-West, Hunter-Central Coast and Illawarra regions. The REZs will play a vital role in delivering affordable energy to help replace the State’s existing power stations as they retire over the next 15 years.

The NSW REZs will unlock a significant pipeline of new large-scale wind, solar and energy storage projects, supporting an estimated \$20.7 billion of private investment by 2030, and around 5,000 construction jobs at their peak.

The importance of the Central-West Orana REZ has been recognised in the Australian Energy Market Operator’s 2020 Integrated System Plan, with the REZ transmission being declared an ‘actionable’ project. This reflects the Central-West Orana REZ being designated as a critical project to address cost, security and reliability issues in the National Electricity Market.

To find out more about NSW REZs please visit: www.energy.nsw.gov.au/renewable-energy-zones or contact the REZ project team by emailing rez@planning.nsw.gov.au or calling 1300 305 695.

What is the Central-West Orana REZ Transmission (Transmission project)?

TransGrid is planning new 500kV and 330kV transmission lines, substation(s) and related infrastructure to support development of the Central-West Orana REZ.

TransGrid’s existing substation at Wollar will also be upgraded as part of the Transmission project.

Investment in this new transmission infrastructure will allow renewable energy generators (such as solar and wind) and energy storage projects (such as batteries and pumped hydro) in the Central-West Orana region to connect to the grid and provide affordable, reliable and clean energy for NSW customers.

Who is responsible for delivering the Transmission project?

TransGrid operates the high-voltage transmission network across NSW and the ACT, and is working with the NSW Government to deliver new transmission lines, and new substation(s) and related infrastructure (i.e. shared network infrastructure).

The NSW Government is leading the coordination and delivery of Australia’s first REZ, in the State’s Central-West Orana region. In late 2020 the Government re-established a dedicated body, the Energy Corporation of NSW, to coordinate the development of transmission, new generation (such as solar and wind) and storage projects (such as batteries and pumped hydro) within the REZ.

What is a study corridor?

A study corridor is a broad area where the transmission lines and infrastructure could go. It's used in early planning to identify where a project could be located.

The initial study corridor identified for the Transmission project is generally between 3km – 6km wide and approximately 180km in length. It's much bigger than the final design will need, to provide flexibility for selecting a route for the transmission lines and the design of the Transmission Project, and to avoid constraints and minimise environmental, community and land use impacts.

Where is the study corridor located, and how do I find out if my property is potentially affected?

The initial study corridor runs approximately north-west from the existing 500kV transmission network near Merriwa, passing south of Dunedoo before connecting to the existing transmission network east of Wellington. The study corridor also includes an option to extend further south near Lake Burrendong. This optional section is called the 'Burrendong Extension'.

A map of the study corridor can be found [here](#).

In December 2020 and February 2021, information about the project was mailed to landowners located within or near the initial study corridor and those adjacent to Wollar Substation.

If you have a landholding within the study corridor and we haven't spoken to you, we encourage you to book a COVID-safe meeting. Please contact our project team to arrange a meeting via phone 1800 313 212 (toll free number) or email cwo@transgrid.com.au.

How was the location of the study corridor determined?

The process of identifying the study corridor was multi-step and considered many factors. The main steps are:

- > Identification of a broad study area
- > Identification and analysis of feasible technical options
- > Selection of a preferred network infrastructure solution
- > Identification of a study corridor

At every step in the development of the new transmission infrastructure, we seek to avoid and minimise impacts to the environment and community.

In 2020, a detailed feasibility study was undertaken to (i) consider the range of different strategic alternatives that could achieve the objectives for the 3,000MW Central-West Orana REZ and identify feasible technical options and (ii) consider environmental and community constraints including:

- > Ecology
- > Cultural heritage including Aboriginal cultural heritage
- > Land tenure and use including important agricultural land
- > Bushfire prone land
- > Existing and approved future infrastructure, including airports, renewable energy projects and mines
- > Locations of residences and proximity to townships, villages and other sensitive receivers

The identification and analysis of technical options for the new transmission infrastructure for the REZ was undertaken by TransGrid working with a technical working group formed by the NSW Government, acting through the Department of Planning, Industry and Environment. The analysis carefully considered the abovementioned social, environmental, technical, and economic factors and the results of a Registration of Interest process for generation and storage projects, conducted by the NSW Government in mid-2020. Based

on the analysis and input from the Australian Energy Market Operator, a preferred network infrastructure solution that would best support the objectives for the REZ whilst minimising impacts was selected.

The selected preferred network infrastructure solution was then used to develop an initial study corridor, to start consultation and field studies.

Read more about how the study corridor was identified in our [Study Corridor Identif](#)

Why does the study corridor split near Uarbry?

When developing a route for transmission lines, we need to consider land use, terrain, bushfire prone land, proximity to towns and villages, environmental impacts and cultural heritage, engineering requirements and cost.

The feasibility study undertaken as part of this process identified that there is dense forest located near the Uarbry area which would pose a high bushfire risk to the proposed transmission lines in this area. The corridor splits at that point so as to avoid the high risk bushfire prone land and allow for greater route optionality around this area.

What is an easement? How wide will the easements be?

An easement is a 'right of way' on which we can build and maintain lines and towers on private land.

The final transmission line easements for the Transmission project are still to be determined but will be up to 80 metres wide. Landowner feedback and a detailed environmental assessment will help inform the final easements.

Preliminary work indicated that in the eastern section of the study corridor, two 80 metre easements may be required to appropriately mitigate risks for maintaining power system stability. The need for one or two easements will be confirmed in the coming months. We will keep landowners and communities informed as we develop a concept design and further refine the proposed transmission line route.

Will there be new substation/s? Where will they be located?

There will be a number of new substations and/or switching stations. At this point, the locations have not been determined. Potential locations will be identified as the study corridor is refined. The final locations will be determined after considering the outcomes of further engineering and environmental studies, and the NSW Government's market process for generation and energy storage projects.

How tall will the new transmission line structures be?

Transmission line structures vary in height depending on several factors including the operating voltage (e.g. 500kV or 330kV), the design of the infrastructure (e.g. single or double circuit), the type of terrain between structures (i.e. undulating or flat), and any underlying land use (e.g. farmland versus railway crossing).

While the individual height of structures will not be determined until the detailed design stage, the structures for the Transmission project are generally expected to be in the range of 50 to 70 metres tall.

How can communities have their say?

Community consultation is vital to the success of the Transmission project and we will consult with local communities at each stage of the project.

Landowner consultation is underway and will continue throughout 2021-2022. Landowner and community feedback helps us to refine the initial study corridor and develop a preferred route for the transmission lines that minimises impacts to local communities and the environment.

Local communities will have many opportunities to have their say including:

- > COVID-safe meetings with local community and interest groups
- > Adding comments on an online interactive map available via our [website](#)
- > Attending community information sessions (to be advertised in advance in local papers and on our website)

- > Checking our website www.transgrid.com.au/centralwestorana for regular project updates and factsheets
- > Contacting our project hotline 1800 313 212 (toll free number) or sending us an email to cwo@transgrid.com.au

Will there be direct consultation with landowners prior to finalisation of the design?

Yes – preliminary landowner consultation is already underway. Landowners hold important information that is often not publicly available. Landowner and community feedback helps us identify environmental impacts, integrate local knowledge about land uses into our planning and improve design. The consultation process will identify issues we may not be aware of and help us to consider the best ways to address issues and concerns.

We will work with landowners to gather local knowledge and information about land use and feed this knowledge into the process of narrowing the study corridor. Landowner feedback might include current land use and what potential changes to land use and lifestyle, if any, might occur as a result of the Transmission project.

Why doesn't information I provide about my property and/or surrounds now appear on the interactive map?

All feedback will remain confidential and won't be published on the map unless you choose to make it public.

What is the environmental assessment process?

In November 2020 the NSW Minister for Planning and Public Spaces declared the Transmission project as Critical State Significant Infrastructure (CSSI).

As a CSSI project, the Transmission project is subject to rigorous environmental assessments. The assessment process includes preparation of a Scoping Report (planned to be submitted in late 2021) and an Environmental Impact Statement (EIS) for the new transmission lines, new substation(s) and related infrastructure (i.e. shared network infrastructure). It is planned that the EIS will be placed on public exhibition in 2022.

A separate Scoping Report and EIS will be prepared for the upgrade works at Wollar substation. The Scoping Report for this work is expected to be submitted in Q3 2021 and the EIS is planned to go on public exhibition in 2022.

How is the Transmission project being funded?

As the NSW electricity transmission planner and operator, TransGrid has incurred the costs of the Transmission project to date, including the feasibility and scoping study activities.

The Transmission project is receiving funding from the Australian Renewable Energy Agency (ARENA) as part of ARENA's Advancing Renewables Program. This funding has helped to assess the technical and commercial options for the development of new high-voltage transmission lines to enable the Central-West Orana REZ and demonstrate a pathway for future REZs across the National Electricity Market.

Under a NSW-Commonwealth Government Memorandum of Understanding, the Commonwealth agreed with NSW to underwrite or financially support TransGrid to ensure the Transmission project is developed to its full 3,000MW capacity.