

Port to REZ road upgrades

Central-West Orana REZ transmission project

September 2023

EnergyCo is delivering the Central-West Orana Renewable Energy Zone (REZ) to provide a clean, affordable and reliable power supply for energy consumers across NSW. The Central-West Orana REZ transmission project will involve the construction of new transmission lines, energy hubs, switching stations and related infrastructure. The new REZ network infrastructure will enable renewable energy from solar, wind and storage projects to be distributed to energy consumers across the State via the existing NSW transmission network.

Overview

To enable renewable energy to be exported to electricity consumers across the State, EnergyCo is leading the delivery of new high capacity transmission infrastructure for the Central-West Orana REZ. This includes new energy hubs, overhead transmission lines and related infrastructure. We are working closely with developers of major solar, wind and storage projects to plan their proposed connections to the REZ transmission network.

Delivery of projects in the Central-West Orana REZ will require the transportation of large renewable energy components from the Port of Newcastle, such as wind turbine components and transformers for transmission.

These loads would be transported using oversize and over-mass (OSOM) vehicle movements.

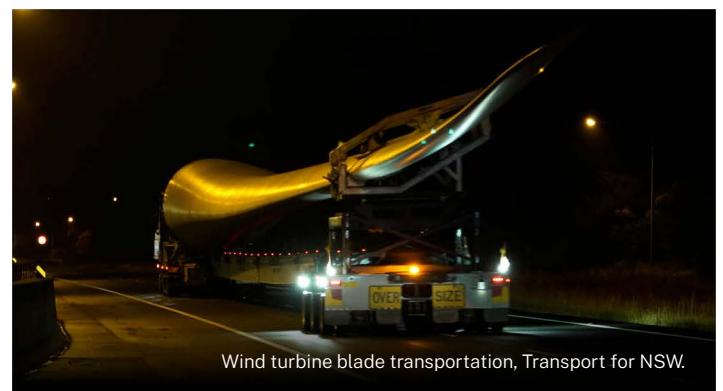
OSOM loads are typically transported along state roads, with connections along regional and local roads to individual projects where required. This is standard practice for major infrastructure projects and many existing mining projects, which require large components for construction.

To ensure the state road network can accommodate OSOM vehicle movements for renewable energy and transmission projects in the Central-West Orana REZ, minor road work and corridor modifications are required along the Port to REZ route.

The Port to REZ route

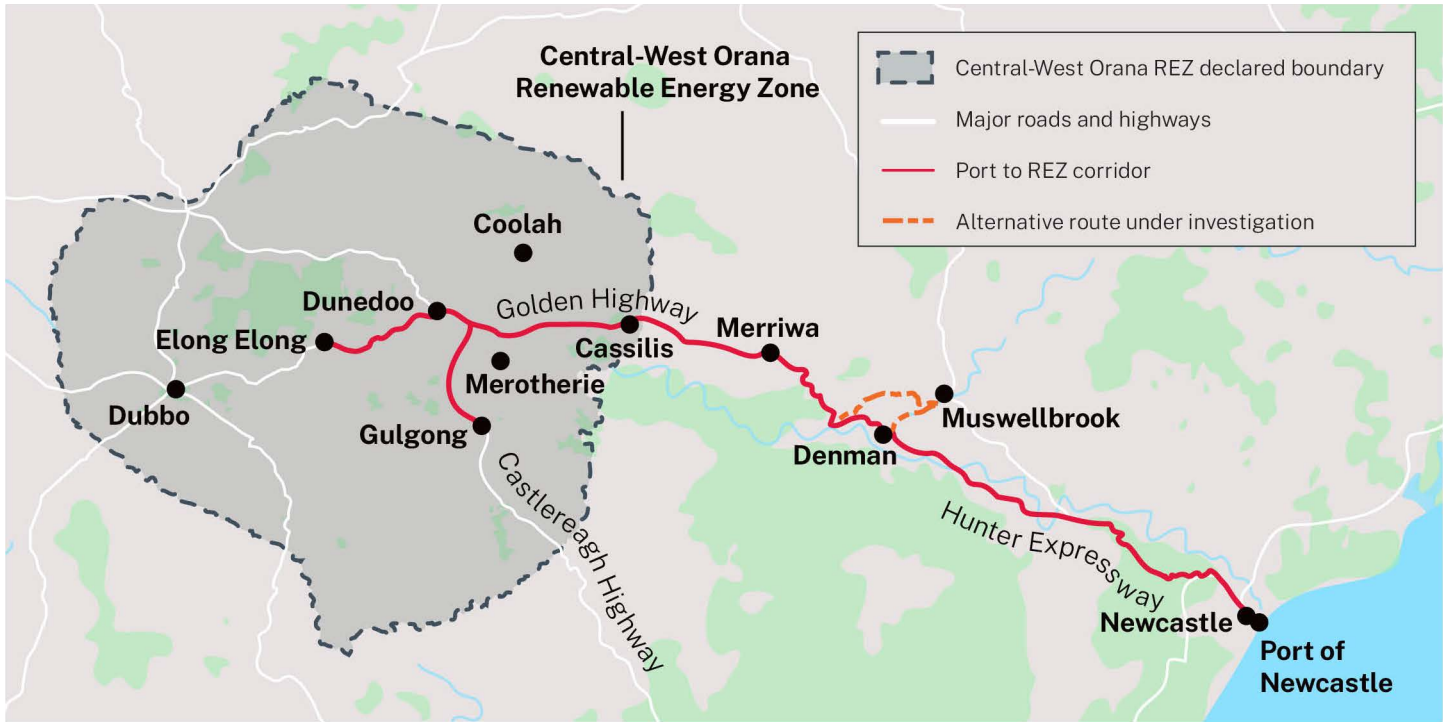
The Port to REZ route generally follows the state road network from the Port of Newcastle to the Central-West Orana REZ. This includes sections of the New England Highway, Golden Highway and Castlereagh Highway.

EnergyCo is coordinating the Port to REZ road upgrades because the route is common to the Central-West Orana REZ transmission project and major generation projects with planned connections to the REZ network. While EnergyCo is working with Transport for NSW to coordinate upgrades along the Port to REZ route, individual developers will be responsible for planning and implementing the necessary OSOM vehicle movements and upgrades along other local road networks to their projects. This will be assessed as part of their respective Environmental Impact Statements.



Wind turbine blade transportation, Transport for NSW.

Map of the Port to REZ route



Status and next steps

EnergyCo has identified a number of locations on the Port to REZ corridor that will require minor upgrades to facilitate OSOM vehicle movements. Potential road work may include pavement widening, drainage adjustments, intersection upgrades and relocating signage, lighting and utilities.

Surveying and early investigation work for the Port to REZ alignment was completed in mid-2023 to inform our planning for the road upgrades. EnergyCo is now working with Transport for NSW to determine the design, construction methodology, planning approval pathway and timing for planned road upgrades expected to begin in 2024.

Port to REZ road upgrades would be subject to a separate planning approval process. We will consult the community as part of the approval process before any road upgrades are carried out.

Local communities and stakeholders will be notified ahead of work starting on the alignment including notification of expected work hours and temporary traffic changes.



Frequently asked questions

What is the timing for OSOM vehicle movements?

Transportation of large renewable energy equipment will increase progressively along the Port to REZ route as construction begins in the REZ. Work to build the REZ transmission project is expected to start from late 2024. Construction of major solar, wind and storage projects with planned connections to the REZ network is also expected to start around this time.

We are working closely with developers to understand the volume and frequency of OSOM vehicle movements on the Port to REZ corridor during construction of their projects. We will keep the community informed once further details are confirmed as part of the planning process.

How will impacts to road users be managed?

OSOM vehicle movements will generally take place outside of peak traffic periods to help minimise impacts to the road network.

Depending on the size and mass of the load, escort vehicles will be used to ensure the deliveries are carried out safely while managing impacts to road users. Escort vehicles would be operated by accredited escort drivers or NSW Police.

OSOM vehicles are subject to speed restrictions and will pull over to allow other vehicles to pass safely at intervals outlined in the operational plan.

Permits for OSOM vehicles are managed by Transport for NSW and the National Heavy Vehicle Regulator (NHVR). Transport for NSW and NHVR will notify communities and road users about OSOM vehicle movements along the Port to REZ route, including expected delivery volumes and times.

How big are the wind turbine blades?

The turbine blades used in wind projects for the REZ are expected to be around 85 metres in length.

Does Denman Bridge need to be upgraded?

Our initial investigations show that Denman Bridge can support a majority of OSOM vehicle movements without upgrade. Some construction components will need to be transported around the bridge such as wind turbine base tower bodies and high voltage transformers. An alternative route using Denman Road, Bengalla Link Road and Wybong Road is currently being investigated.

Will the Port to REZ route bypass local towns?

There are a number of towns along the state road network between the Port of Newcastle and the REZ. State and arterial roads are best suited for OSOM vehicle movements and therefore no bypasses are proposed as part of the Port to REZ route. We will work with Transport for NSW to manage impacts to local road users while OSOM vehicle movements are carried out.

What vehicles will be used?

OSOM vehicle movements would require the use of road freight vehicles and specialised trailers that can be between 30 and 100 metres long depending on the equipment being transported. These vehicles would be operated by transport specialists with significant experience transporting OSOM loads.

Who would carry out the work?

EnergyCo will collaborate with Transport for NSW to deliver the work. We will keep the community informed once further details are confirmed.

About EnergyCo

The Energy Corporation of NSW (EnergyCo) is a statutory authority responsible for leading the delivery of Renewable Energy Zones (REZs) under the NSW Government's Electricity Infrastructure Roadmap. For more information, visit our website at energyco.nsw.gov.au/about-energyco.

Contact Us

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🗣️ If you need help understanding this information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us on **1800 061 114**.

EnergyCo wants to hear what you think about our plans. If you have questions or want to give feedback, please get in touch with our team. You can find more information on our website by scanning the QR code or by visiting energyco.nsw.gov.au.

