

# EnergyConnect Factsheet

## Overhead Transmission Lines



### Powering the future

EnergyConnect is a high voltage infrastructure project that involves 700 kms of new transmission lines between the electrical grids of NSW, SA and Victoria. Transmission lines connecting state grids are commonly referred to as interconnectors.

The interconnector is being built between the SA border and Wagga Wagga via Buronga with an additional line between Buronga and Red Cliffs, Victoria.

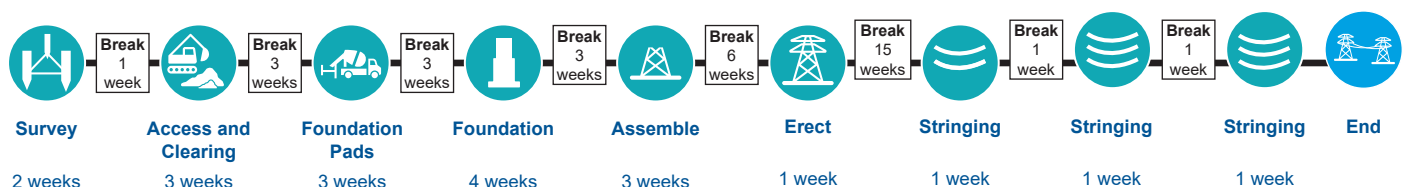
### EnergyConnect involves the construction of:

- New double-circuit 330 kV transmission line from the SA border to the Buronga Substation approximately 135 km.
- New double circuit 330 kV transmission line from the Buronga Substation to the Dinawan Substation approximately 376 km.
- New double circuit 500 kV transmission line from Dinawan Substation to Wagga Wagga Substation approximately 176 km.
- New double circuit 220 kV transmission line from Buronga Substation to the Red Cliffs Substation, approximately 24 km.

Along the project alignment there will be approximately 1,500 towers that differ in size and shape from self-supporting structures to guyed towers (refer tower types). On average, the structures will be spaced 460 metres apart.

Specialist teams are required to assemble and erect these towers. The guyed towers are preassembled in sections in offsite laydown areas and transported to tower sites by truck for final assembly. For the self-supporting towers laydown areas will be established along the project easement to enable workers using rough terrain cranes and telehandlers to position and bolt sections together.

### Tower Build



Foundation pads ready to commence tower assembly

### How is a tower assembled?

Towers are assembled in a sequence. This sequence involves:

**Foundation pads:** Temporary gravel structures to allow cranes to be set up safely.

**Foundation:** Vertical bored pier foundations will support tower structures, transferring their load to layers of soil or rock that have sufficient bearing capacity.

**Assemble:** Bundled steel is delivered to each tower site by semi-trailer. It is then craned off, pre-planned and pre-assembled on location by construction teams to design. They will be assembled in two pieces. A 40 to 55 tonne crane will be used.

**Erect:** Bundled steel is bolted in sections at each tower location. A crane is used in this process.

Drones will be used to lift prepared components together to complete the towers. A 230 tonne all terrain mobile crane will be used. Installation of the towers vary in time but range from one to two days for the erection of the guyed towers and the heavier angle strain towers, three to four days.

**Stringing:** Conductors and ground wires are uncoiled from reels and pulled into place using winches and pulleys. Specialist teams made up of 8 to 10 people are required to connect the insulators, wires and weights to the towers.

## Tower Types



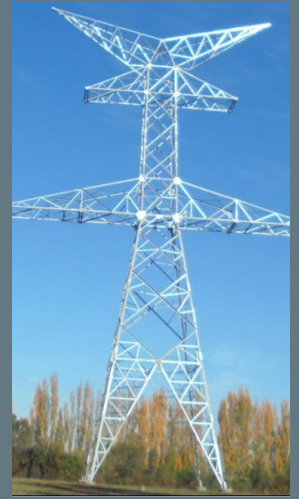
330 kV  
Guyed Suspension  
56m tall and 16t



330 kV  
Light Suspension  
56m tall and 21t



330 kV  
Heavy Angle Strain  
64m tall and 56t



500 kV  
Danubio Tower  
64m tall and 65t

Guyed towers are structures with a central steel column supported by four steel cables (guy wires). The guy wires are anchored to the ground providing the structural strength and stability.



*Tower construction has commenced*

## Keep Updated on EnergyConnect

There are several ways to contact the project team.

Contact the Elecnor Australia Community and Stakeholder Engagement Team on:

☎ 1800 49 06 66 (free call)

✉ [pec.community@elecnor.es](mailto:pec.community@elecnor.es)

If you are a landholder impacted by the project, you can contact your assigned Land and Property Access Officer directly.

Log on to [www.transgrid.com.au/energyconnect](http://www.transgrid.com.au/energyconnect) to subscribe to the e-newsletter.

For more information about the project go to [www.secureenergyjv.com.au/projects/energyconnect](http://www.secureenergyjv.com.au/projects/energyconnect)