

**Buloke Times**  
**Tuesday 26/01/2016**  
Page: 3  
Section: General News  
Region: Donald VIC, AU  
Circulation: 1239  
Type: Regional  
Size: 1,069.00 sq.cms.



**slice**  
CUT STRAIGHT TO YOUR NEWS

press clip

# A Sight to Behold as Wind Farm Rises

(By Jenny Pollard)

**Majestically rising from the its Ritchies Hill site, the Coonooer Bridge Wind Farm is now a prominent feature on the horizon south of Charlton with three of the six turbines nearing completion.**

The \$50 million project, owned by Eurus Energy Holdings Corporation (Japan), Windlab and the local community, remains close to on track with its construction schedule as the massive infrastructure continues to rise skywards.

On completion the wind farm will supply power to Canberra as part of the ACT's Climate Change Action Plan, producing enough energy to power 14,000 homes.

An undertaking of immense significance to the Yeungroon and Coonooer communities, in the world of wind farms this is a small project.

None the less, it brings with it remarkable statistics and awe-inspiring engineering to which words and still photography only do minimal justice.

(Check out the Vestas youtube clip [https://www.youtube.com/watch?v=EHJmLRp\\_xqY](https://www.youtube.com/watch?v=EHJmLRp_xqY) "Building A Vestas Wind Turbine filmed by a Drone" for an idea of the task at hand.)

Since the launch of the Coonooer Bridge project in early July 2015 the site transformation has been remarkable.

## Towers

Work commenced in early August with the construction of a six kilometre roadway and the foundation preparation and concrete pours for the six towers. A site office complex and a power sub-station are also part of the development.

The 98 metre towers (in-

cluding the nacelle (the box-like component that sits atop the tower and is connected to the rotor) rise from a 4 metre foundation into which numerous steel rods have been encased in 330 cubic metres of concrete. The tower base is attached with bolts around the circumference, each stretched to 92% of their breaking capacity and made with a specially designed thread.

The steel towers, fabricated by Keppel Prince Engineering (Portland), are constructed from 4 separate components and will house a lift to allow fast and easy access up and down the interior of the structure.

Currently the only means of transit is a ladder which runs vertically up the inside wall, and which can be scaled by the "experienced" (so I'm told) in around two minutes. (Fortunately I wasn't invited to put this to the test!)

## Turbines

The 129 tonne V117-3.3 MW turbine sits on top of the tower and is coupled with the nose-cone which holds the three blades. With a rotor diameter of 117 metres these are currently the biggest wind turbines in Australia.

These components were manufactured in Denmark by the Danish wind energy company Vestas and then were shipped to the Port of Geelong. From there they were freighted to Coonooer Bridge in a series

of "over dimensional deliveries" (very large trucks) and expertly manoeuvred into position on site at each tower location. Extraordinary driving skills saw one of the long loads backed up the curved road to the hilltop location.

## Blades

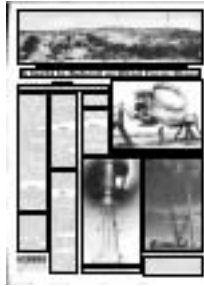
The 54 metre carbon fibre blades weigh in at 12 tonnes each, with the widest point being approximately 3 metres.

Lifted horizontally in a cradle by the 650 tonne crawler crane (Universal Cranes) the blade is manoeuvred onto the nose-cone with the crane arm extension almost at its maximum 114 metre height. Inside the cone interior technicians then carry out the final connection of bolting the blade onto the structure.

The \$20 million crane was transported in 36 trailer loads of components from New South Wales to Coonooer Bridge to undertake this exacting work.

Using ballasts of 10 and 15 tonne weights, the crane is additionally counterbalanced during the raising of the nacelles with a large, single horizontal counterweight attached to two cables suspended behind the cabin.

Favourable weather conditions are critical to the progress of the project, especially for the raising of the blades and nacelles. Windows of opportunity can mean a 5



**Buloke Times**  
**Tuesday 26/01/2016**

Page: 3  
Section: General News  
Region: Donald VIC, AU  
Circulation: 1239  
Type: Regional  
Size: 1,069.00 sq.cms.



**slice**  
CUT STRAIGHT TO YOUR NEWS

press clip

a.m. start if conditions are right, and regular checks of weather forecasts provide guidance for forward planning strategies.

### Benefits

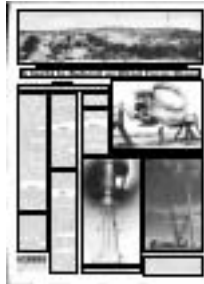
This construction phase of the Wind Farm has brought significant financial benefits to the local area and the surrounding towns, as well as utilising local subcontractors such as Perry Contractors of Charlton.

The commissioning of the Coonooer Bridge Wind Farm is anticipated for March 2016.



• The changing landscape – pictured dotted across a section of the wind farm site are from the left Towers 1 (extreme left partially erected), 2, 3 and 4.



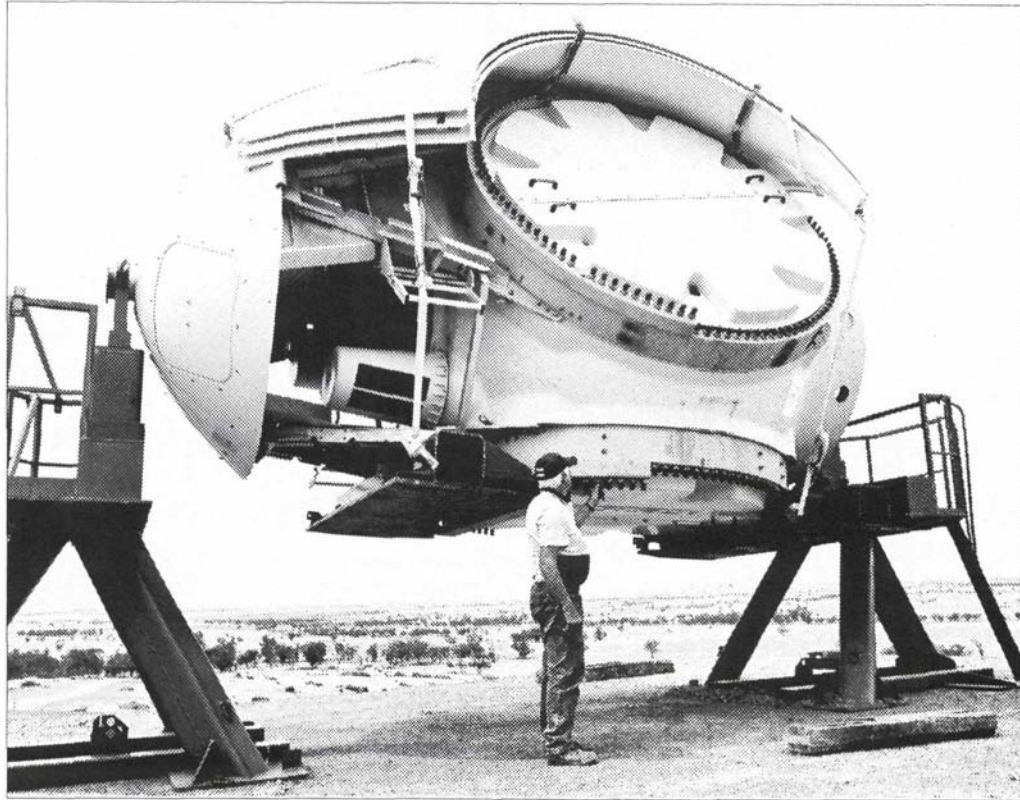


**Buloke Times**  
**Tuesday 26/01/2016**  
Page: 3  
Section: General News  
Region: Donald VIC, AU  
Circulation: 1239  
Type: Regional  
Size: 1,069.00 sq.cms.



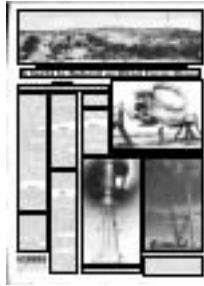
**slice**  
CUT STRAIGHT TO YOUR NEWS

press clip



- *Peter Watts stands beside the rotor hub or nose cone section of the nacelle, indicating to where the rotors will be attached.*



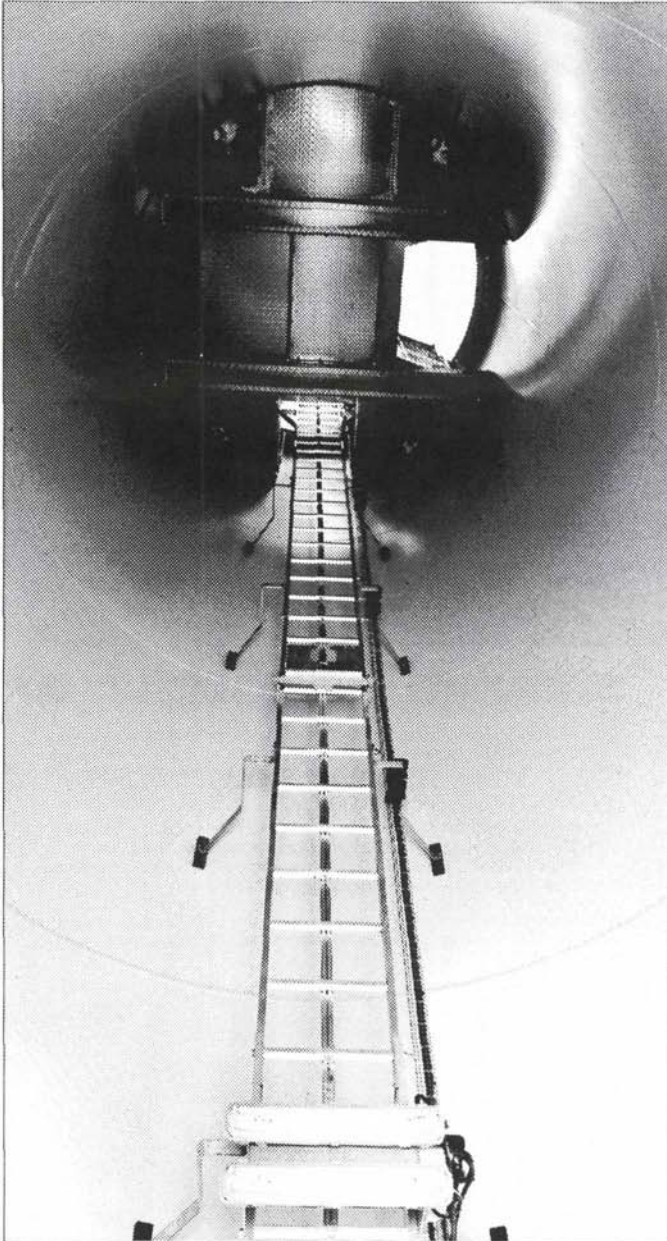


**Buloke Times**  
**Tuesday 26/01/2016**  
 Page: 3  
 Section: General News  
 Region: Donald VIC, AU  
 Circulation: 1239  
 Type: Regional  
 Size: 1,069.00 sq.cms.

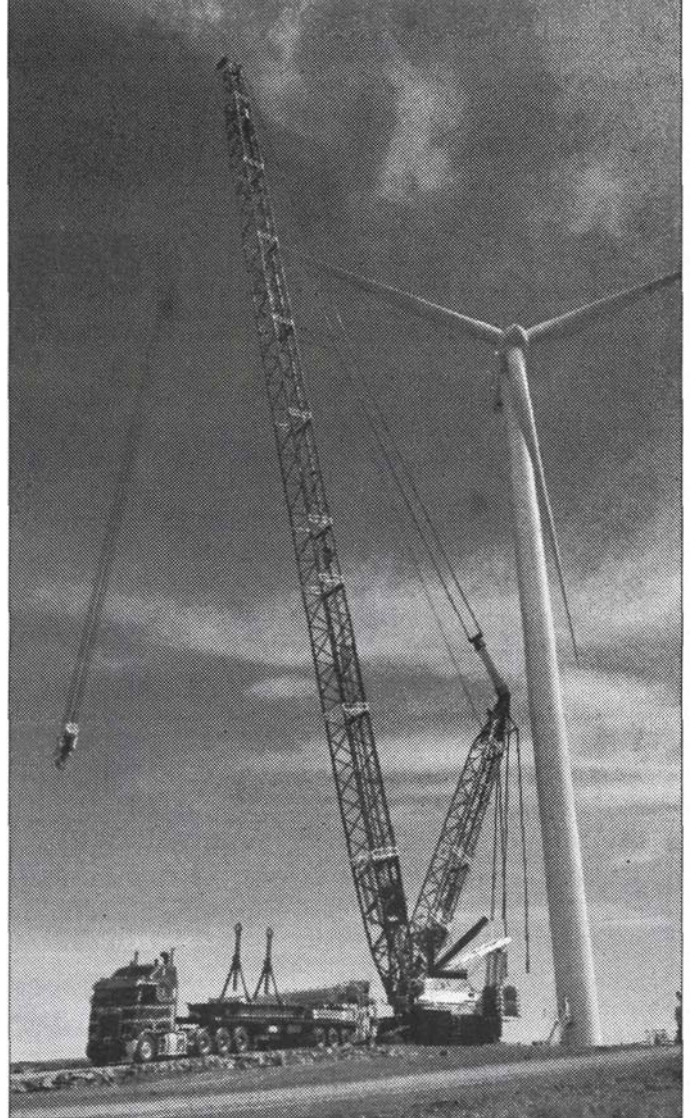


**slice**  
 CUT STRAIGHT TO YOUR NEWS

press clip



Looking skywards inside the tower the ladder leads all the way to the top. The open space in the landing (top right of photo) is where the lift will pass through.



It's difficult to appreciate the immense scale of these machines and turbines, but for discerning eyes there is a man standing beside the cabin door of the crane (arrowed). To the left on the flat top trailer is the giant weight used to counterbalance the crane when raising the nacelle, and to the right of the tower (on the ground) is the cradle used to lift the rotor blades horizontally into place.

"The Buloke Times", Tuesday, January 26, 2016 — PAGE 3