



Warradarge Wind Farm - Stage 2

CLIENT:

Vestas Australia Wind Technology
Pty Ltd

LOCATION:

Warradarge, Western Australia

CONTRACT:

Design & Construct

CONTRACT VALUE:

\$47M

PROJECT DURATION:

Dec 2024 – Jan 2026

The Warradarge Wind Farm started operating in 2020 and is considered a world-class largescale renewable energy project. The Warradarge Wind Farm has a total output of 180 megawatts with a capacity factor of nearly 50 per cent – the equivalent of the average annual electricity needs of 144,000 West Australian homes.

The 51 turbines of the Warradarge Wind Farm were supplied and constructed by global wind energy company Vestas, who engaged Decmil for the civil construction and balance of the plant (CBoP) works.

Decmil delivered the Warradarge Stage 1 works in 2020. This Design & Construct contract involved the engineering, procurement and construction of the civil and electrical balance of plant works for the 51-turbine wind farm including wind turbine bases, 55km of new gravel roads around the 3,800ha site, site cabling, switch room and substation. 51 foundations each with 480m³ of concrete were poured from the on-site batch plant.

The scope of works included more than 60km of Electrical reticulation from WTGs to the switchroom; over 20,000m³ of concrete footings; electrical switchrooms; electrical substation including 2 x 200MVA and 330kV transformers; WTGs foundations; crane pads and hardstands. 117km of underground 33kV electrical cabling was laid by the construction workforce that averaged around 125 people during construction.

The Warradarge Stage 2 Expansion Project will contribute an additional 30 wind turbine generators (WTGs) to the wind farm which will increase the capacity to 283MW, making it the biggest wind farm in the South West Interconnected System (SWIS).

Decmil's scope of work for Stage 2 includes the design and construction of:

- Wind farm access tracks
- Turbine hardstands including crane pad, tower laydown, blade laydown and auxiliary crane pads
- All drainage, sediment and erosion controls
- WTG foundations
- Site compound bench, concrete batch plant bench and laydown bench.

The new turbines will be the same size as Stage 1 and will feature a hub height of 84 metres, a tip height of 152 metres and blades 67 metres long.