



Windmill blades arrive at the Australian Marine Complex and are then transported to the Warradarge wind farm near Eneabba

When the wild wind blows

The McGowan Government's plan to develop WA renewable energy projects in partnership with the private sector is more than hot air in the Mid West

By Stephen Bell

In Henderson, the giants have left the building as WA's surge in renewable energy investment marches on.

The first of the big turbine components for Bright Energy Investment's (BEI) \$500 million Warradarge wind farm started leaving the Australian Marine Complex (AMC) last month bound for the project site near Eneabba.

BEI, the partnership between State Government-owned Synergy, Dutch Infrastructure Fund (DIF) and superannuation giant Cbus, says 153 turbine blades, 153 tower sections and 51 turbine nacelles — the covers housing the generating components — will be trucked north over the next few months.

While all the pieces are large loads, the 66-metre long blades, some of the largest in Australia, will require special handling during transportation.

To minimise road delays, transportation is carried out at night and each load takes about six hours to reach Warradarge.

BEI General Manager Tom Froot described the trucking of the giant components to the site as a major milestone for Warradarge, which started site works in July and remained "on track for planned first energy around the start of the fourth quarter of 2020".

As of December, about 25 out of a total 51 foundations had been poured ready to receive the wind turbines, he added.

Denmark-based Vestas is supplying the turbines and civil works on the turbine foundations, while the balance of plant is

carried out by subcontractor Decmil.

Decmil won a \$72m contract in March 2019 — the Perth-based engineer's first role on a wind farm. The scope includes wind turbine bases, 55km of access tracks, site cabling, switch room and substation.

BEI said each wind turbine tower will be assembled out of three sections. The turbine nacelle placed atop the towers will have a hub height of 84 metres.

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The project is expected to generate about 200 construction jobs and, when complete, will boast a generating capacity of 180MW — enough to supply the equivalent of 148,500 homes.

Warradarge is one of three big wind farm construction projects fanning a renewables construction boom in the Mid West.

The others are Alinta Energy's \$400m Yandin

project, which is also using the Vesta/Decmil combination and APA Group's Badgingarra, which was completed early last year.

Keep on the sunny side

Meanwhile, BEI reported progress at its other Mid West energy investment — the Greenough River Solar farm expansion.

The original 10MW facility operates south of Geraldton and is being expanded by a further 30MW.

The expansion had a rocky start when former contractor RCR Tomlinson collapsed in November 2018, about seven months after winning a \$60m contract for stage two.

BEI terminated RCR's contract in late 2018 and, after retendering, appointed Brisbane-based Juwi Renewable Energy in September 2019 to finish building the project.

About 300,000 solar panels needed to be installed, alongside half the piles, cabling, inverters and switch equipment.

"It is expected that the workforce will peak at approximately 120 workers," said Froot, who told *WA Works* the final cost of the venture was commercial in confidence.

Last month BEI said the project was progressing well and remained on track for energisation in the second quarter of 2020.

"Progress is becoming quite clear on the site now with the installation of the posts nearly complete and tracking systems and panels going up rapidly. We expect stage two to be generating by the second quarter," Froot said.

Unlike stage one, which has fixed solar panels, the expansion panels are mounted on a single axis tracking system which follows the sun to provide more electricity generation in the mornings and afternoons, BEI said.

When finished, the overall 40MW facility will generate enough electricity to power nearly 20,000 homes. ●