

HORNSDALE WIND FARM JOINS THE GRID

South Australia's Mid North is already home to some of the nation's biggest wind farms, including Snowtown and Hallett. Now, the first phase of Hornsdale Wind Farm – 32 turbines stretching out along 20km of hills near Jamestown – is sending clean, green energy into the national grid.



→ An original artwork produced by some of the region's Indigenous people will be presented on one of the Hornsdale wind towers. Local artists Chris Angrave and Louise Brown – Nukunu and Nadjuri people – will leave their mark on the wind development in acknowledgement of the area's first people. The subject of the artwork is still being finalised.

→ Since the start of the Hornsdale project almost four years ago, Neoen has worked with the Northern Areas Council in Jamestown by funding community grants for meaningful and sustainable projects. Northern Areas Council chief executive officer Colin Byles said the impact of the Hornsdale Wind Farm is immense, and has injected a new energy into the area. "You can see the impact through increased patronage of hotels and other accommodation, cafés and small retailers. Also, farmers benefit by having a regular source of income and road infrastructure that even benefits local volunteer fire fighters with new access roads," Mr Byles said. "The Council believes the Hornsdale Wind Farm Community Funding is of immense value to our small community organisations. The small organisations do not qualify for the major grants offered by government and the funding from the Hornsdale wind farm provides them with the opportunity to undertake projects that they would never been able to commence. "All these organisations are run by volunteers with minimum income streams coming from their day-to-day operations."

In late June, the second 100MW stage of the 105-turbine Hornsdale Wind Farm near Jamestown, South Australia, reached financial close, nearly four years after the project was first approved for construction. Now, the project owned and operated by France's Neoen and constructed by Siemens has been switched on, heralding a new, renewables-driven era for the state's energy network. Hornsdale Wind Farm is Neoen's first project in Australia and, with ambitious targets of 600MW in projects by 2020, the company is already looking at other renewable energy projects in South Australia.

The total project is being built in three stages: 32 turbines each at a capped capacity of 100MW and involving a capital cost of \$250 million each. Seven of the 32 turbines in Phase 1 of the farm have been switched on, with the remaining Phase 1 turbines expected to come online in the next few months. Each of the 32 turbines in Phase 1 will be 92.5m high with 55m-long rotor blades. The farm has a potential output of 270MW, with the remaining capacity expected to come in a yet-to-be-confirmed Phase 3. The electricity generated from each turbine will be transmitted via underground cabling or overhead transmission line to a central cable marshalling point at the onsite substation, which will be located adjacent to the 275kV power line that runs through the site area. Ultimately, the project will pump around 1,050,000MW hours of clean, renewable electricity into the National Electricity Transmission Grid each year – enough to power around 180,000 homes.

The wind farm features innovative blade technology that harvests more wind energy – increasing the annual energy yield of the turbines. Each rotor of the 32 turbines sweeps a total of 10,000sq m – an area equal to 320 school buses parked together. Hornsdale also uses the latest data and digitalisation platforms; every rotation is remotely monitored to increase effectiveness and efficiency. Neoen's global chief executive officer Xavier Barbaro was in Australia for the energisation ceremony, and said he was proud to work towards ambitious clean energy targets.

"Hornsdale is a great example of the global strength of France and Germany working together to provide clean energy for 70,000 Australian homes and new employment, training and investment opportunities in South Australia and the ACT," he said. "With almost 40 per cent of the country's clean energy produced by wind farms, Australia's renewable energy footprint is increasing in size and global relevance – making it a great place to invest and do business." Hornsdale was awarded a contract to deliver 100MW to the ACT in February 2015 as part of the first reverse auction, enabling Phase 1 to go ahead. Under the reverse auction, companies were invited to put forward bids to the ACT Government detailing how they could generate the greatest amount of renewable energy at the least price. In December, it secured a second 20-year contract with the ACT Government, which will allow Phase 2 of the project – a further 100MW – to go ahead, possibly next year. ☺

ACT Minister for the Environment Simon Corbell (left) and SA Minister for Climate Change Ian Hunter at the plaque unveiling ceremony

