

Trustpower Snowtown Wind Farm Fact Sheet



Who is Trustpower

Trustpower Australia Holdings Pty Ltd is a wholly owned subsidiary of Trustpower Limited, a publicly owned company, operating in Australia and New Zealand. We own and operate primarily renewable energy assets, including 39 hydro stations, (36 in NZ and 3 in Aus) and 8 wind farms - 4 in Australia, including Snowtown Stages 1 and 2 in SA and Blaney and Crookwell 1 wind farms in NSW.

We develop wind farms with the ultimate goal of **owning and operating** them for the life of the projects. Trustpower began investigating wind farm sites in Australia in 2001. Initial efforts focused on the South Australia region, due to its **strong wind resource and proximity to transmission and load centres**. Trustpower is also investigating wind generation opportunities in four other Australian states.

The Snowtown Wind Farm History

Trustpower started investigating the site for a wind farm in 2002 and commenced construction of the first stage of the wind farm in 2006. Stage 1 of the Snowtown Wind Farm was commissioned in September 2008 with 47 Suzlon S88 2.1MW turbines. In 2011, an additional prototype Suzlon S95 2.1MW turbine was installed and commissioned. Since 2008, Stage 1 has provided reliable electricity into the South Australian electricity network delivering a long term capacity factor of 43%, one of the highest wind farm outputs in Australia.

Final approvals for Stage 2 of the Snowtown Wind Farm were secured in August 2012 to install a further 90 Siemens 3.0 MW turbines with an output of up to 270MW. Snowtown 2 was completed in June 2014. With the completion of Snowtown 2, the total output of the combined Snowtown Wind Farm will be 370MW, making it the biggest single wind farm in South Australia.



Project Description

The Snowtown Wind Farm is located 5km west of Snowtown and 170km north of Adelaide in South Australia. The wind farm is positioned on the Barunga and Hummocks Ranges which are part of a number of low-lying ridgelines running north-south in the mid-north region of the state. The elevation of the Ranges varies from approximately 300 to 430 m above mean sea level.

The existing Stage 1 has been in operation since 2008 and consists of 48 Suzlon 2.1MW turbines. Stage 1 is connected into the South Australian electricity network through an onsite substation to the 132kV transmission line running along the western side of the ranges.

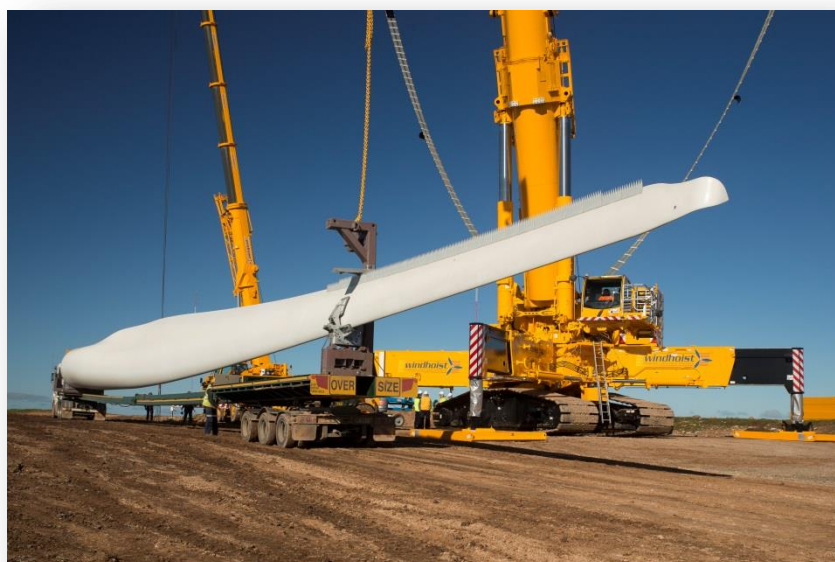
Stage 2 of the Snowtown Wind Farm consists of an additional 90 Siemens 3MW turbines. The turbines are placed adjacent to the existing Stage 1 turbines on the Barunga Ranges in the north and in a new development area along the Hummocks Ranges to the south.

The Snowtown 2 development is separated into two north and south portions connected via an electrical and communications network back to an onsite substation located at Barunga Gap.

The electricity is connected into the national electricity network from the wind farm substation to a new switching station 7km west of Blyth via 28km of newly built 275kV overhead transmission line.

Key Facts

	Stage 1	Stage 2	Combined
Installed Capacity	100 MW	270 MW	370 MW
Annual Production	346 GWh	989GWh	1,335GWh
Wind Turbine Type	Suzlon S88 / S95 – 2.1MW	Siemens SWT 101 & 108 3.0MW	
Number	47 x S88 1 x S95	10 x SWT 101 80 x SWT 108	138
Tower Height	80m	80m	
Blade Tip Height	S88 - 124m S95 - 127m	SWT101 - 130m SWT108 - 134m	
Rotor Diameter	S88 - 88m S95 - 95m	SWT101 – 101m SWT108 - 108m	
Rotor Swept Area	6,070 m ² (1.5 acres)	SWT101 – 8,000 m ² (1.9 acres) SWT108 – 9,160 m ² (2.2 acres)	267 acres



Project Benefits

Clean Energy

The combined Stage 1 & 2 will generate 370MW (1,335GWh p.a.) of renewable energy - enough to power over 230,000 SA homes & offset 1,045,000 tonnes of CO2 produced by coal-fired electricity generation every year (Stage 1: 345,000 tonnes; Stage 2: 700,000 tonnes). That's the equivalent of removing around 225,000 cars from the roads.

Employment

Up to 240 site staff were employed during the 22-month construction period for Stage 2, with around 15 permanent full-time employees after construction. This is in addition to the six full-time employees already employed looking after the existing Stage 1 wind farm.

Investment & community support

The combined Snowtown Wind Farm project required a total investment of \$A660 million. State and local contractors and consultants have benefited from an estimated local spend of \$85 million for Stage 2 construction only, while more than \$2 million will be injected directly into the local community per annum through local services, host landholders and staff payments and the community fund.

Ecological

Other community benefits have included a Native Grassland Significant Environmental Benefit offset program of 104Ha resulting in improved native grasslands biodiversity, improved land productivity, habitat protection for the local pygmy blue tongue lizard population and a native tree and shrub planting program.

Trustpower also supported production of an award-winning training video in preserving Aboriginal heritage, a practical step-by-step visual guide covering the whole process, from identifying who to talk to, negotiating agreements, site surveys, heritage monitoring and protection.

Community Involvement

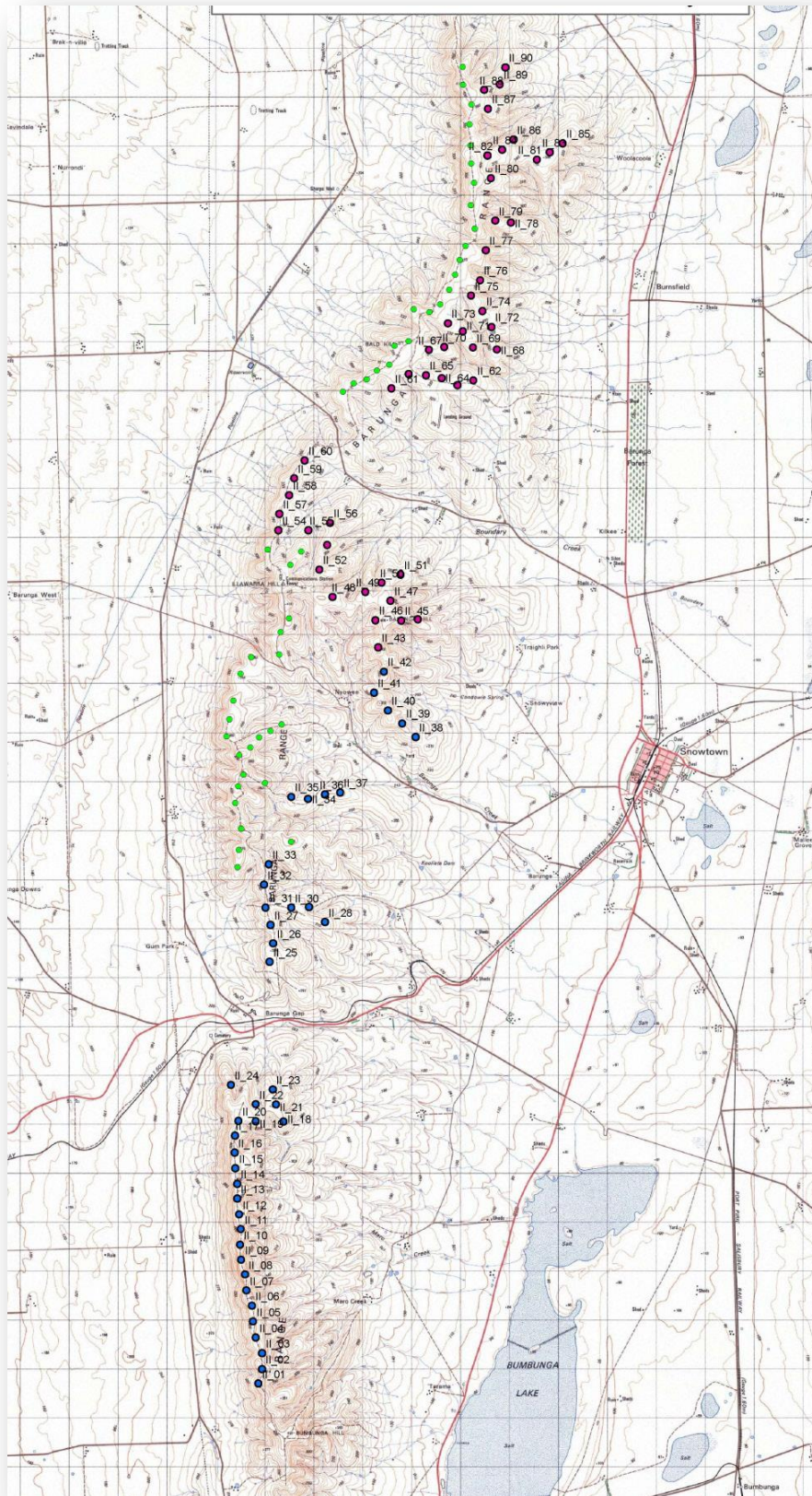
The strong relationships we've shared with landowners and local community groups have been fundamental to the project's success. Our long established commitment to both Snowtown and the wider community through the Lend a Hand Foundation provides support for local community projects, charities, schools and individuals when they need it most. Run in conjunction with the Snowtown Lions Club, this initiative is now also supported by Siemens, which annually contributes \$50,000 to the Foundation alone.

Other local community support initiatives supported by Trustpower includes the sponsorship of the concrete for the Snowtown skate park and contributing towards the installation of underground irrigation for Snowtown Primary School's school oval.

Local club and community sponsorships, native vegetation planting and cultural heritage initiatives, as well as coordination with the County Fire Service have all enabled us to gain a genuine understanding of the local community and how we can work alongside them.



Snowtown Wind Farm Turbine Layout Map



Legend

- Stage 2 South Turbines
- Stage 2 North Turbines
- Stage 1