

AGL HALLETT I WIND FARM

PROJECT PROFILE



In December 2005, AGL Energy Limited awarded Suzlon Energy Australia Pty Ltd the Turnkey Contract for construction of AGL Hallett Wind Farm in South Australia. The wind farm was officially opened by the Premier of South Australian in June 2008

Our Client

AGL Energy Limited, one of Australia's oldest companies and largest retailer of natural gas and electricity, supplying approximately three million customers throughout Australia.

Turbine Type

S88_2.1MW with 88m rotor diameter

Project Location

200km north of Adelaide, near Jamestown, South Australia. The wind farm site spreads more than 14km over the Brown Hill Ridge, and posed many technical and logistical challenges to construct what was one of Australia's largest wind farms when opened in mid 2008.

Project Description

The AGL Hallett Stage I Wind Farm comprises 45 Suzlon S88_2.1MW wind turbines with a total installed capacity of 94.5 megawatts (MW).

Suzlon was the turnkey contractor responsible for Engineering, Procurement & Construction (EPC) delivery of the entire project and is currently undertaking service and maintenance of the project.



Suzlon's overall responsibilities included:

- Design and manufacture of the wind turbines
- Detailed in-house wind turbine micro-siting
- Grid dynamic studies
- Design, construction and maintenance of approximately 24km of new access roads
- Design and construction of footings and hardstands for each tower
- Design, construction and installation of steel turbine towers
- Shipping, installation and commissioning of the turbines
- Design and installation of electrical feeder systems both below and above ground linking the turbines to the substation
- Design and installation of a 275/33kV main transformer
- Long term maintenance and service of the whole wind farm

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Key Statistics

The green energy produced by this wind farm is enough to power approximately 54,000 average Australian households per year, saving over 290,000 tonnes of carbon emission.

Wind turbines convert the energy in wind into electrical energy. The moving air that passes through the 45 S88 wind turbines in one hour at full production weighs over 16,000,000T.

The payback of “embodied energy” of the whole wind farm was approximately 5 months after completion.

- Installed capacity: 94.5MW
- Hub Height: 80m
- Maximum Blade Tip Height: 124m
- Swept area of each WTG: 1.5acres
- Total swept area for the wind farm: 67 acres
- Number of truck journeys during construction: 1640
- High tension cables for rock-anchor footings: 170km
- Rock trenching for 33kV reticulation: 25km
- Concrete: 4,500 m³
- Steel for towers: 7,650T
- Underground cable: 56km
- Overhead cable: 64km
- Weight of 275kv transformer: 108T
- Weight of cargo to be transported to site: 13,692.15T
- The first turbine was installed and commenced generation in March 2007.

