

AGL HALLETT 2 WIND FARM

PROJECT PROFILE

In November 2007, AGL Energy Ltd awarded Suzlon Energy Australia Pty Ltd the Turnkey Contract for construction of the AGL Hallett 2 Wind Farm in South Australia.

Our Client

AGL Energy Limited - one of Australia's oldest listed 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

4km west of Mount Bryan township, near Hallett, South Australia. The wind farm site spreads more than 10km over the Hallett Hill range. The rugged terrain posed many technical and logistical challenges to construct AGL's second wind farm in the region.

Project Description

The AGL Hallett 2 Wind Farm comprises 34 Suzlon Suzlon S88-2.1MW wind turbines with a total installed capacity of 71.4MW.

Suzlon was the turnkey contractor responsible for the Engineering, Procurement & Construction (EPC) delivery of the entire project. The wind farm became fully operational in September 2009.



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 18km of new access roads
- Design and construction of footings and hardstands for each tower
- Design, fabrication 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 will power approximately 45,000 average Australian households per year, with emission savings of over 200,000 tonnes of greenhouse gases per annum.

Wind turbines convert the energy in moving air into electrical energy. The moving air passing through the 34 S88 wind turbines in one hour, at full production, weighs over 12,000,000T.

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

- Installed capacity: 71.4MW
- Hub Height: 80m
- Maximum Blade Tip Height: 124m
- Swept area of each WTG: 1.5 acres;
- Total swept area for the wind farm: 51 acres
- Number of truck journeys during construction: 1240
- High tension cables for rock-anchor footings: 130km
- Rock trenching for 33kV reticulation: 17km
- Concrete: 3,400 m³
- Steel for towers: 5,800T
- Underground cable: 17km
- Overhead cable: 10km
- Total weight of cargo transported to site: 10,350T

