

# CLEMENTS GAP WIND FARM

## PROJECT PROFILE

In January 2008, Pacific Hydro Pty Ltd awarded Suzlon Energy Australia Pty Ltd a contract for the Supply and Installation of Wind Turbine Generators for the Clements Gap Wind Farm in South Australia. The wind farm was officially opened by South Australian Premier Rann in February 2010.

### Our Client

Pacific Hydro is an Australian company dedicated to developing renewable energy projects around the globe.

### Turbine Type

SS88\_2.1MW with 88m rotor diameter.

### Project Location

200km North of Adelaide in Barunga Ranges, South Australia. The site occupies a 10 km section of the Barunga Ranges, 40 km south of Port Pirie.

### Project Description

The Clements Gap Wind Farm comprises 27 Suzlon S88\_2.1MW wind turbines with a total installed capacity of 56.7MW.

The S88\_2.1MW wind turbine has a simple design philosophy to provide a tough, reliable machine that not only maximizes energy production from the available wind, but ensures the turbines operate reliably and with minimal maintenance costs during their lifespan.

Suzlon was responsible for the Supply and Installation of the wind turbines.

The overall scope of work included the following:

- Design and manufacture of the wind turbines
- Detailed in-house wind turbine micro-siting
- Wind turbine power curve testing
- International shipping and delivery of wind turbine components to rural site
- Local manufacture and delivery of 80m steel towers
- Installation, commissioning and testing of wind turbines
- Supply and installation of SCADA (monitoring and control) system
- Long term service and maintenance of the wind farm



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As the turbine supplier, Suzlon worked closely with Civil and Electrical subcontractors to ensure the delivery of this complex project. The wind farm became fully operational with all turbines generating clean power in August 2009.

### Key Statistics

The clean energy produced by this wind farm will be enough to power the equivalent of 30,000 average Australian homes, with emissions abatement of around 170,000T of greenhouse gases every year.

- Installed capacity: 56.7MW
- Hub Height: 80m
- Maximum Blade Tip Height: 124m
- Swept area of each WTG: 1.5 acres  
total swept area for the wind farm: 40 acres
- Total weight of steel for towers: 4,400T
- Total weight of cargo transported to site: 8,000,000 kg

