

PROJECT DATA

Cathedral Rocks Wind Farm



CLIENT	Hydro Tasmania Renewables Development
PROJECT LOCATION	South Australia
DATE OF PROJECT	Completion September 2005
SERVICES PROVIDED	<ul style="list-style-type: none">• Site identification and liaison with land owner to secure site• Feasibility study including wind monitoring and energy estimates• Obtaining development approvals• Detailed designs and specifications for:<ul style="list-style-type: none">○ civil works (roads, foundations, control building); and○ electrical works (cabling, protection, communications) components of the project.• Supervising and assisting with construction

The Cathedral Rocks Wind Farm is a joint venture project between Hydro Tasmania and Spanish renewable energy company, EHN. The joint venture business operates as Cathedral Rocks Wind Farm Pty Ltd.

Hydro Tasmania is the largest generator of renewable energy in Australia, contributing around 60 percent of Australia's renewable energy production and has been producing clean renewable energy for nearly 100 years. Hydro Tasmania's total electricity production is equal to twice that of the Snowy Hydro Power Scheme.

EHN is the largest developer, constructor and operator of wind farms in the world. It has renewable energy facilities in Spain, France and Germany with new establishments due to come on stream shortly in both Canada and the United States.

The development of the Cathedral Rocks Wind Farm is a direct result of the Federal Government's legislated Mandatory Renewable Energy Target, which enhanced the viability of developing commercial wind farms.

Electricity generated by the Cathedral Rocks Wind Farm will help Australia meet its greenhouse gas reduction targets by supplying green energy sufficient for 25,000 homes every year.

The Location

The Cathedral Rocks site is a remote coastal area located near the southern tip of the Eyre Peninsula in South Australia, about 30km south west of Port Lincoln. The site covers an area of about 29km², with a coastal exposure of nearly 11km and is private farming land.



Head Office
4 Elizabeth Street
Hobart, Tasmania 7000
GPO Box 355, Hobart
Tasmania 7001, Australia
PHONE 1300 360 441
FAX +61 3 6230 5460
EMAIL
consulting@hydro.com.au
Hydro Tasmania is a business
of the Hydro-Electric Corporation
www.hydrotasmaniiconsulting.com.au

PROJECT DATA

Design and construction

The project began in July 2004 with the commencement of road construction. The wind farm has a final installed capacity of 66 megawatts and consists of 33 two-megawatt wind turbines each with a blade diameter of 80 metres on 60 metre tall towers. The wind turbines were supplied by Danish wind turbine manufacturer Vestas. The total capital cost of the Cathedral Rocks Wind Farm will be around \$100 million.

Feasibility Study

Wind Energy Solutions began monitoring the wind resource at Cathedral Rocks in October 2001 using a 50m monitoring tower located at the southern end of the site. In June 2002 a 70m tower was erected. Additional Bureau of Meteorology data was used to confirm the viability of a wind farm and to help determine the optimum locations for turbines. Cathedral Rocks is considered to be a world-class wind farm site.

Wind Energy Solutions completed all the technical and economic feasibility analysis, including long term wind resource and wind farm energy estimation, and preliminary electrical and civil works design.

Approvals Process

A development application was prepared by the team and submitted to the District Council of Lower Eyre Peninsula in April 2003.

As with all wind farm developments, Wind Energy Solutions is committed to a comprehensive public consultation program that provides key stakeholders and interested groups with suitable information on the project and its effects, and seeks views and comments from local residents and the wider community. Public Information sessions were first held in Port Lincoln in November 2002 and continued throughout the project feasibility and approval phases. The development application was approved in August 2003.

The Barnjarla and Nauo people were the traditional inhabitants of the Cathedrals Rocks Wind Farm Site and surrounding areas. The joint venture worked closely with the Aboriginal community through the Port Lincoln Aboriginal Community Council, to ensure that their interests in the area are considered and respected during the proposed wind farm development.

Environmental focus

As part of the approvals process, extensive environmental and cultural studies were conducted. Surveys undertaken included the assessment of potential impacts to Aboriginal and European cultural heritage, flora, visual amenity, noise levels, birds and other animals.

Studies indicate that small areas of the site include suitable habitat for the endangered Southern Emu Wren. Disturbance during breeding season is avoided by fencing off and siting roads away from habitat areas during construction.

To reduce potential collisions with birds flying around the cliff edge the turbines are set back from coastal cliffs and are more widely spaced.

The construction of the wind farm has been designed to minimise impact on the coastal vegetation. A heritage agreement has been finalised to protect and conserve over 2300ha of vegetation at the site.

Transmission line

A 30km transmission line to the Cathedral Rocks site was provided by ElectraNet SA.

