CASE: GOLDWIND AUSTRALIA PTY LTD

China’s largest global wind energy operator builds NSW wind farm

Summary of interview with John Titchen, Managing Director and Ning Chen, Vice President of Goldwind Australia Pty Ltd.

Introduction

Goldwind Australia Pty Ltd (Goldwind) set up their office in Sydney in 2009 and entered the Australian renewable energy market with the initial Mortons Lane Wind Farm project in Victoria (VIC) and the much larger Gullen Range project in New South Wales (NSW). From 2014, the Gullen Range Wind Farm near Goulburn, with its 73 state-of-the-art wind turbines, will supply electricity for 63,000 households and help achieve the NSW State Plan’s target that 20 percent of electricity consumed in NSW will be from renewable sources by 2020. Government support for renewable energy was key to Goldwind’s decision to enter the Australian market as a long-term market participant.

Goldwind Australia is a subsidiary of Goldwind International Holdings (HK) Ltd and ultimately owned by Xinjiang Goldwind Science & Technology Co., Ltd., China’s largest wind turbine generator (WTG) manufacturer, with a domestic market share of 20 percent. Listed as a public Chinese corporation on both the Shenzhen and the Hong Kong Stock Exchange, Goldwind is the world’s second largest manufacturer of wind turbines with a global market share of nearly 10 percent¹. Gullen Range Wind Farm will host the first ‘next generation’ 2.5MW gearless Permanent Magnet Direct Drive (PMDD) wind turbines in Australia.

In addition to technical and market knowledge, Goldwind has been using its institutional expertise and working with local partners and governments to successfully obtain approvals and progress plans.

¹ BTM Consulting 2012 report
Goldwind operates across the whole value chain of wind energy solutions, from installing wind turbines to selling and operating wind farms with business partners including local wind project developers, international buyers of completed projects and Australian and Chinese banks to provide long-term finance. In bringing technical expertise, capital and institutional experience to the Australian wind farm market Goldwind operates like many successful foreign investors from China, relying on global technology, local business partners and local government and community support.

Global technology
For continuous improvement of its technology, Goldwind relies on its integrated research and development (R&D) centres in Beijing, Urumqi and at its German subsidiary, Vensys AG, where the gearless PMDD wind turbines were developed.

Local business partners
For wind farm development Goldwind relies on collaboration with local wind farm developers, such as Epuron, who take projects through initial feasibility studies and assessment and approval processes. Goldwind has then taken over projects to install wind turbine generators with the option of operating them or transferring them to specialised operators, such as China Guangdong Nuclear Power Group’s subsidiary, CGN Wind Energy, which bought Goldwind’s Mortons Lane Wind Farm in Victoria.

Operating wind farms also relies strongly on local communities and suppliers and creates local jobs.

For Gullen Range Wind Farm in NSW, Goldwind is proceeding with construction which will require an investment of over AUD 300 million. The project will be financed with approximately 30 percent equity funding and the remainder through Australian and Chinese banks, with Chinese commercial and policy banks signalling strong interest.

Operation of a wind farm relies strongly on local communities and suppliers and creates local work for the community.

NSW State, local government and community support
The highly regulated nature of the renewable energy industry requires close coordination with local governments in Australia, as much as in China. Foreign Investment Review Board (FIRB) approval was achieved without problems with similar requirements to the approval process in China for outbound investment.

The NSW Department of Planning & Infrastructure is an important stakeholder during the assessment and approval process. The NSW state-owned TransGrid, the owner, operator and manager of the high-voltage electricity transmission system in NSW is needed to approve connection to the grid.

Local governments are closely involved in planning, construction and operating processes of the wind farms as they provide the necessary physical infrastructure, grid connections and cables, as well as integration in local communities.
Challenges
The wind energy sector is highly competitive. Goldwind’s competitors are the large international players as well as new entrants, including those from China.

Goldwind has technological advantages and competitive manufacturing costs.

Regulatory changes such as devolution of planning approvals can have a major impact on projects.

Goldwind is confident that it has the right mix of technical, commercial and institutional expertise to be a long-term successful player in the Australian wind energy market.

Background
Xinjiang Goldwind Science & Technology Co. Ltd (Xinjiang Goldwind) is the ultimate parent company of Goldwind Australia. Established in Urumqi City in 1998, Xinjiang Goldwind became a joint-stock limited liability company in 2001, and is currently listed on both the Shenzhen Stock Exchange and Hong Kong Stock Exchange. In less than 15 years, Xinjiang Goldwind has grown from a team of around 40 staff to a holding company that employs more than 4,000 people globally. Today, there are 14 manufacturing plants in operation around the world, including Germany, where Xinjiang Goldwind is a 70 percent shareholder in Vensys Energy – a key technology partner. The company is now the biggest wind turbine generator manufacturer in China and the second largest in the world. It accounts for 10 percent of the global market and 20 percent of the Chinese market. Its main products include the 1.5MW and 2.5MW wind turbine generators (WTGs). Currently, Xinjiang Goldwind has over 6000 MW-level WTGs installed and operating under diverse environmental conditions in China and in other countries.

In an ongoing effort to globalise the business, Xinjiang Goldwind expanded to Australia in 2009. Since then, Goldwind Australia, a subsidiary of Xinjiang Goldwind, has been involved in a number of projects to showcase its technology and capacity to comply with local market requirements. Gullen Range, for example, is Goldwind Australia’s second wind farm in Australia and the first to use 2.5 MW gearless PMDD wind turbines.

Once in operation, Gullen Range Wind Farm is expected to produce enough energy to power 63,000 homes, which helps avoid the production of approximately 445,000 tons of CO₂ annually. Some key facts of Gullen Range Wind Farm are:

- Located approximately 20km west of Goulburn, NSW.
- Planning approval granted by NSW Government in August 2010.
- In total 73 wind turbines will be installed.
- The first stage of the wind farm will produce 165.5MW of renewable power at full capacity.
- In one year of operating, the wind farm will offset 445,000 tons of CO₂.
- The project creates an anticipated 150 construction jobs and 15 ongoing jobs during the operational phase of the project.

Goldwind and EPURON joint media release: Goldwind secures the opportunity to utilise its turbines at Gullen Range Wind Farm, 2011.

2 Goldwind and EPURON joint media release: Goldwind secures the opportunity to utilise its turbines at Gullen Range Wind Farm, 2011.
## The development of Gullen Range Wind Farm

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<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2002</td>
<td>Wind monitoring equipment installed on the site.</td>
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<td>2007</td>
<td>Designed and developed by EPURON as a greenfield project, from site identification, securing land, developing the site layouts to carrying out detailed site assessments and applications for project approvals.</td>
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<td>2010</td>
<td>NSW Government granted EPURON planning approval for 73 wind turbines and associated infrastructure at Gullen Range Wind Farm.</td>
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<td>2011</td>
<td>Goldwind Australia and EPURON have entered into an agreement that will see Goldwind supply its state-of-art wind turbine generators for the Gullen Range Wind Farm.</td>
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<tr>
<td>2011</td>
<td>Goldwind Capital Australia (formerly Tianrun Australia), a subsidiary of Xinjiang Goldwind, acquired 100 per cent of the shares in Gullen Range Wind Farm from EPURON.</td>
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<td>2012</td>
<td>TransGrid gives a grid connection agreement to connect Goldwind turbines to the Australian Grid. The project also has a Power Purchase Agreement.</td>
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<td>2013</td>
<td>Project is scheduled to be completed.</td>
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