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GWPL

Chinese collaboration to help company reposition itself

By Bhavya Laul

With the formalisation of its partnership with the China Ming Yang Power (CMYP) Group, Global Wind Power Limited (GWPL) took a concrete step towards reviving business growth. In end-2012, the CMYP Group, a leading private manufacturer of wind turbines in China, acquired a majority stake in GWPL, a Reliance Anil Dhirubhai Ambani Group (ADAG)-promoted company, through its subsidiary Ming Yang Holdings (Singapore) Pte Limited. Following the stake sale, GWPL now operates as a subsidiary of the Chinese company without having had to rebrand itself.

The acquisition is likely to improve GWPL's market position in India both in terms of its product offerings and its cost of setting up projects. The company has been able to set up only 200 MW of wind power capacity since its establishment in 2008 because it has not been able to compete with other large turnkey contractors on cost and time parameters. Of this, 45 MW was installed in Maharashtra in 2013 itself.

The partnership with CMYP will eliminate the need for aquiring foreign licences for wind turbine technology, which is not only costly but also time-consuming. Further, GWPL will gain long-term access to Chinese expertise in turbine technology, engineering as well as research and development (R&D). This will allow the company to focus on its core business of manufacturing, servicing and selling turbines. "Most Indian companies do not have strong R&D capabilities in place for wind turbines. It is, therefore, more appropriate to source technology from a company like CMYP, which has an established product portfolio and a long-term plan in place. As CMYP evolves in terms of technology, so will GWPL," says Hiren Shah, chief executive officer, GWPL.

For CMYP, the equity stake in GWPL will give it access to a large wind power market in India. In order to tap this market, the Chinese company has also signed an MoU with Reliance Power to co-develop 2,500 MW of renewable energy projects.

GWPL is currently promoting CMYP's 1.5 MW series of wind turbines in the country. The turbine is available in two versions – one with a rotor diameter of 77 metres and the other with a rotor diameter of 89 metres. The Centre for Wind Energy Technology (C-WET) has recently granted approval for the sale of the 77 metre rotor diameter turbine in India. GWPL, however, expects to achieve greater success with the other turbine version, which is likely to receive C-WET certification by mid-2014. The company has already received product enquiries and has confirmed at least 150 MW of orders for these turbines.

Operations and performance

Reliance ADAG entered the wind power equipment manufacturing space in 2008 with the intention of the group becoming a captive user of this equipment. GWPL was established for manufacturing and supplying wind turbine generators (WTGs), besides providing turnkey solutions and services like wind resource assessment, site acquisition, infrastructure development, erection and commissioning of turbines and long-term operations and maintenance for projects.

With regard to technology, the company had to depend on licensed and certified designs from abroad. Prior to its collaboration with CMYP, GWPL had signed technology transfer agreements with three European companies. It had acquired a licence for a 750 kW fixed speed active stall-regulated turbine from Denmark-based Norwin Wind Turbine Technologies. The turbine, which has a rotor diameter of 47 metres, was renamed GWP 47-750 kW for distribution in India. Apart from this, the company has been selling the GWP 82-2000 kW turbine, which is a direct drive wind turbine designed by Dutch engineering consultancy Lagerwey Wind. Further, Germany-based Fuhrländer had issued a licence to the company for the GWP 100-2500 kW asynchronous machine. The variable speed turbine model was originally designed by another German company, W2E Wind to Energy GmbH.

GWPL has been actively promoting at least two of these products in the Indian market. However, the market for the 750 kW turbine shrank considerably with the removal of the accelerated depreciation (AD) benefits in March 2012. Increasing participation by independent power producers (IPPs) also contributed to the low demand as IPPs tend to focus more on increasing operational efficiencies by opt-

GWPL's product portfolio in India

Model	Rated power (kW)	Rotor diameter (metres)	Hub height (metres)	Turbine concept
GWP 100-2,500 kW	2,500	100	100	Asynchronous machine, variable speed, electrical pitch system, indirect converter with DC voltage intermediate
GWP 82-2,000 kW	2,000	825	80, 105, 120+ hybrid tower	Direct drive gearless, variable speed, variable pitch, full power converter
GWP 47-750 kW	750/180	47	35 (minimum), 65 (maximum)	Conventional drive train with main shaft, active stall regulation, thyristor controlled
Mingyang 1.5 MW HH 75 m TC II A	1,500	77.36	75	Designed for anti-typhoon. Makes use of doubly fed induction generators, variable speed electrical pitch system, long main shaft and two main bearings designed to avoid axis vibration into the gearbox
Mingyang 1.5 MW HH 80 m TC S*	1,500	89	80	Long blade length designed for low wind speed zone, based on the mature technology of MY1.5/77-75; optimised control algorithm to generate as much energy as possible to achieve a low cost per kWh

** Yet to be certified by C-WET for sale in India*

Sources: GWPL; C-WET

ing for multi-MW scale turbines. Going forward, the company is likely to be more involved in the sale of CMYP's turbines. However, these technical agreements will continue to be in place and will be unaffected by the stake sale.

With regard to GWPL's manufacturing capabilities, it has nacelles and tower production units in Silvassa in Dadra & Nagar Haveli that can cater to about 600 MW of wind turbines per annum. However, the actual utilisation of the company's nacelle manufacturing capacity has been low, especially since the withdrawal of AD benefits. Moreover, the 2.5 MW turbine, which the company started marketing in 2010, may not be suitable for all sites. Therefore, the company made a strategic move and started supplying its towers to other WTG manufacturers, rather than keeping the tower manufacturing facility idle. However, the demand for towers is not enough to allow the company to operate its facility at full capacity. This is due to the fact that some turnkey contractors in India have set up their own tower manufacturing units and it is only when there is a logistical advantage that a contractor is likely to source towers from GWPL.

GWPL is now in the process of augmenting its manufacturing facilities to be able to cater to the demand for towers and nacelles required for CMYP's WTGs. "The manufacturing facilities will be able to produce all classes of turbines, including CMYP's recent models, by 2014," says Shah. Over time GWPL plans to indigenise its manufacturing process, a move that will be funded through a combination of equity, debt and profit earnings.

In line with the industry norm, only about 20 per cent of the company's revenues come from engineering, procurement and construction (EPC) services; the rest are earned from manufacturing services. However, the ratio may vary slightly from state to state. For instance, in Maharashtra it is estimated to be about 75:25 as the EPC cost in the state is higher, while in Tamil Nadu it is estimated to be about 78:22.

Project pipeline and outlook

Immediately after the launch of its operations, GWPL witnessed a slump. However, in the past two years, the company has been making concerted efforts to restructure its business model and reposition itself as a cost-effective solutions provider. Under its previous model, the company paid for the technology; however, now, GWPL has received an equity infusion to access the technology and will receive operational support from CMYP. Shah believes that the company now has better future visibility for both its EPC and manufacturing operations. GWPL's manufacturing facilities are likely to have a capacity utilisation factor of 40 per cent by 2014. Further, GWPL's firm order book currently stands at 150 MW and orders totalling 500 MW are expected in the near future. Of this, at least 100 MW is likely to be executed in 2014.

While GWPL's progress in the Indian wind power market has been slow so far, the situation is expected to improve going forward. Future growth will depend on its ability to leverage CMYP's cost-effective strategies to tap the price-sensitive Indian market. Although it is too early to predict the extent to which GWPL will benefit from the Chinese collaboration, its order book is sure to improve. Depending on the success of this collaboration, GWPL may also export CMYP's turbines in the long term. ■