Kenersys India

Focusing on low wind sites

By Dolly Khattar

Kenersys India, a wind turbine manufacturing venture of the Maharashtra-based Kalyani Group and US-based private equity firm the First Reserve Corporation, specialises in onshore multi-megawatt turbines. Targeting sites witnessing low and medium wind speeds, Kenersys has managed to carve a niche for its products in the fast growing Indian wind energy market.

The company currently sells only one wind turbine model, K82 2.0 MW, in India. As of March 2012, 38 units of the K82 2.0 MW turbine aggregating 76 MW were operational in Maharashtra, Gujarat and Tamil Nadu. Recently, Kenersys introduced two new turbines in the Indian market – K98 1.8 MW and K120 2.3 MW. Designed at its global technology centre in Germany, these turbines will be commercialised in early 2014. As per Kailash Tarachandani, chief executive officer, Kenersys India, "India is predominantly a low-wind market with a few pockets of high-wind areas. Multi-MW machines are the only solutions for low-wind sites and for challenges associated with land availability and grid connectivity."

Kenersys plans to sell these high-capacity machines in Maharashtra, Gujarat, Rajasthan and Tamil Nadu, which are the major wind markets. Further, these states present fewer logistical challenges for transporting the large multi-MW machines as compared to others. The company is also targeting sites in or close to coastal areas.

Background and current capacity

Kenersys India Private Limited was established in 2007, when the Kalyani Group bought German design and consulting firm RSBconsult GmbH (RSB). RSB was set up in 2003 by former GE Energy employees to offer design services to wind turbine manufacturers.

RSB first collaborated with the Kalyani Group's subsidiary Bharat Forge to develop a wind turbine system concept. During this association, the two companies decided to start manufacturing wind turbines, leveraging the German design expertise and the global supply chain capabilities of the Indian partner. In 2008, First Reserve became a co-founder of the company by acquiring equity in it.

Kenersys Renewable Holding BV, the Germany-based holding company, focuses on the design, manufacturing, assembly, marketing and servicing of wind turbine generators for global markets. It operates through two entities – Kenersys India, which caters to the Indian and Asia-Pacific markets, and Kenersys GmbH, which serves the European market.

The European market is served by the turbine design facility at Münster and the Wismar production plant in Germany, which has been operational since 2009. The Indian market is served by the Baramati manufacturing facility in Maharashtra, which was inaugurated in March 2011. Both the facilities have the capability to manufacture the company's product offerings – the K100 2.5 MW and K82 2.0 MW turbines. The manufacturing capacity at Wismar is about 180 machines per year, while the Baramati plant can supply 210 machines each year. The latter is set up over an area of 35 acres and has a built-up area of 5,600 square metres.

In India, Kenersys provides turnkey solutions from conceptualisation to commissioning, including site assessment, planning, execution, analysis, project management, operation and maintenance and supply chain management. Meanwhile, to secure its supply chain, the company has entered into strategic long-term relationships with spares and equipment suppliers across the world. Kenersys currently sources about 60 per cent of its turbine components from

domestic sources. The company intends to increase this share to about 85 per cent to become more competitive.

Clients and projects in India

The Indian market accounts for two-thirds of Kenersys' business. Maharashtra accounts for about 55 per cent of its wind turbines installed in India.

The company has received orders from leading independent power producers (IPPs) and captive power generators in India. These include the Tata Power Company, the Centre for Wind Energy Technology (C-WET), the Ushdev Group, the Serum Institute of India, Bharat Forge, the Panchshil Group, Gamma Green Power Limited, Giriraj Enterprises and Kalyani Carpenter Special Steels in India and Vattenfall, Göteborg Energi, Juwi, Slättens Vind, Stadtwerke Grevesmühlen GmbH and Skagern Vind I AB in Europe.

In India, the largest project being executed by Kenersys is Tata Power's 98 MW plant at Amberi and Visapur villages in Maharashtra's Satara district. The project's first phase constituting 10 MW of capacity was commissioned in September 2009, while work on the 88 MW second phase is under way.

All the company's executed/under-construction projects in India use the K82 2.0 MW turbine model. The turbine has a rotor diameter of 82 metres and a hub height of 80-98 metres. Kenersys recently launched the K100 2.5 MW model in India, which was initially marketed only in Europe. The turbine has a rotor diameter of 100 metres and a tower height of 85-135 metres.

Overall, the company's project portfolio in the Indian wind power market increased from 4 MW of commissioned capacity in 2009-10 to 38 MW in 2011-12. However, the company's market share is still less than 1 per cent and it is ranked 10th among wind turbine manufacturers operating in India.

Global track record

Kenersys is a new player in the global market, which is dominated by established companies like Gamesa, Vestas and Suzlon. The company marked a key milestone in 2011, when it entered the US market with the commissioning of the first turbine for Lincoln Electric at Euclid, Ohio. The K100 2.5 MW turbine was manufactured in Germany. Another such turbine has been installed by Varian in the US.

In Europe (largely in Sweden and Germany), Kenersys has commissioned over 10 projects aggregating 102.4 MW. Germany-based JUWI, which has installed 55.9 MW of Kenersys' wind power turbines so far, has been the company's largest client in Europe.

Kenersys India plans to extend its marketing reach to neighbouring countries. "We are looking at the Asia-Pacific, South Asia and Middle East regions for market expansion, while our sister company Kenersys Europe is expanding in Europe and the US," says Tarachandani.

The way ahead

While the company commissioned only seven projects (aggregating 38 MW) using 2 MW turbines in 2011-12, it is expecting to sell about 80 MW of machines in 2012-13 and about 160 MW by 2013-14.

The IPP regime has and will lead to several positive changes in the wind industry. The developer model is becoming popular instead of turbine manufacturers undertaking the entire project development process. "IPPs, especially foreign players, have a significant knowledge base and delink site development from equipment and technology supply. This model will enable manufacturers like us to focus on the core competence of supplying high-performing wind turbines," notes Tarachandani.

According to him, discontinuation of the accelerated depreciation (AD) benefit has had a positive impact on the Indian wind market. "For players like Kenersys, it is favourable to move away from the AD regime to a market driven by generation-based incentives. Our turbines are designed (in terms of availability and reliability) to provide the IPPs the optimum output," he says.

Going forward, the company believes that it has adequate manufacturing capacity (over 400 MW) to meet future demand and, therefore, there is no immediate requirement for expansion. Its future investments will be focused mainly on expansion in terms of site development in various states. The company plans to increase its land bank, especially in states like Gujarat, Maharashtra, Madhya Pradesh, Rajasthan and Karnataka as they offer significant potential for Kenersys' machines.

The company is not looking to tap the offshore segment in the short term as the demand for turbines for such projects has not picked up due to high costs. The cost of an offshore wind project is about three times that of an onshore project.

Net, net, though Kenersys has been a late entrant in the low-wind product market, its recent moves in terms of launching new products and future business strategy will help it gain a larger share in the Indian wind power market. ■

Kenersys' operational turbine base in India (MW)

State	Capacity installed in 2009-10	Capacity installed in 2010-11	Capacity installed in 2011-12
Gujarat	–	–	28
Maharashtra	4	32	10
Tamil Nadu	–	2	–
Total	**4**	**34**	**38**