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Wind turbine sector on road to overcapacity

A flood of foreign players join domestic rivals, putting the mainland ahead of its goals, writes Cameron Dueck

When the Danish wind power equipment maker Suzlon Energy opened an office in the mainland two years ago it did not come for lower manufacturing costs or a cheaper labour force. It was joining dozens of other companies in the race to grab a share of the industry's biggest new market.

The flood of foreign companies such as Suzlon and myriad new domestic competitors have put the mainland wind turbine business on the road to overcapacity long before all their orders have been filled or the mainland's optimistic renewable energy goals have been reached.

And along the way, sharp contrasts in the development paths of the wind power and solar power equipment industries show what a little government support can do.

'Eventually there will be overcapacity because there are a lot of factories being built,' said Paulo Fernando Soares, chief executive of Suzlon's mainland operations. 'It looks like the balancing point will be in 2009 or 2010.'

In April, Suzlon opened a 250,000 square metre factory in Tianjin, bringing its expertise and technology to the market and meeting one of the key goals of a government rule that has shaped the mainland wind turbine business.

The National Development and Reform Commission in 2005 introduced a set of rules for wind power concession projects that ensured developers had buyers for their electricity and which encouraged large-scale projects by making them more competitive with coal-fired power.

The rules also specified that wind farms must be built with 70 per cent local equipment, forcing global equipment suppliers to set up shop in the mainland if they wanted a piece of the biggest new market the industry has so far seen. What began as a rule for concession projects only was soon applied to all mainland wind farms, effectively forcing international companies such as Denmark's Vestas, Germany's Nordex and Spain's Gamesa to export their expertise and technology to the mainland.

'We came to China because this is a big market and because of government requirements we have to be here. There are no real cost advantages over manufacturing the equipment at our main factory in India,' said Mr Soares.

Wind power is a key part of Beijing's renewable energy plans and the government has set a target of five gigawatts of installed wind power capacity by 2010 and 30 gigawatts by 2020. While this is a large amount of wind power by international standards, five gigawatts is less than 1 per cent of total current mainland electricity generation capacity.

The government's support for wind power is a key difference between the solar and wind power industries. This has created domestic demand for wind turbines while the solar power sector, although wildly successful in its own right, relies almost solely on exports.

So far, the wind turbine business has been good and Suzlon is sold out until March next year. Domestic companies, which are able to undercut foreign players on price and have

better industry connections, have waiting lists of up to two years. Domestic turbine makers have a market share of about 70 per cent, up from 20 per cent in 2004, according to some industry estimates.

'It's a combination of price and some element of economic nationalism interest, where on these state company projects a local manufacturer may be preferred,' said Alex Tancock, general manager of Wind Prospect in Hong Kong. Wind Prospect is working with CLP Holdings to build Asia's largest offshore wind farm near Ninepin Island.

Domestic manufacturers can sell turbines for about 20 per cent less than international companies with mainland factories, but as their technology improves their prices are likely to rise to meet the rest of the market.

As with so many aspects of mainland development, the growth story is so good that it is creating its own host of problems, and looming overcapacity promises to shake up the industry soon as domestic companies such as Dongfang Electric Corp, Goldwind and Dalian Jinlei Heavy Industry ramp up production.

Industry executives estimate there are about 25 turbine makers already in competition on the mainland with another 40 to 50 planning to open factories shortly.

Estimates vary on when all that new capacity will overwhelm annual demand, but most industry experts predict that the tipping point will come in 2009 or 2010 at the latest, while some say it could be even sooner.

'The aggregate of the capacity targets [of new companies] creates a potential supply of eight gigawatts of capacity by the end of 2008 and the most aggressive forecasts for the annual demand market put it at maybe four gigawatts, but in reality it's probably closer to two or 2.5 gigawatts,' said Sebastian Meyer, director of research at Azure International, a Beijing energy consultancy.

Zhejiang Windey Wind Generating Engineering Company is one of the better-known domestic competitors, but even its business is in the early stages, with annual revenue quadrupling from year to year as it ramps up production. Windey has a one-and-a-half-year order backlog and it recently hired Lewis Liu Xiaofeng from a European competitor to help sell more turbines.

'It seems every day there's another company starting up operations,' Mr Liu said. 'This is typical China. Everyone thinks this is a really big cake, so many companies pile in wanting a slice and then suddenly there's an overcapacity issue and companies are working against each other.'

Domestic equipment makers hope to become exporters once the domestic market gets swamped with supply, but some analysts predict they will find it tough to crack the international market.

Most mainland wind farms are financed by the big state power companies, while in developed countries wind farms are financed using complex project financing structures. A key part of that equation is the reliability of the equipment since once a wind turbine begins to spin it is expected to continue turning for 20 to 30 years. Therefore, it is much easier to get financing for a project if you are buying turbines from a known maker such as General Electric than from an unknown mainland maker.

'The way that projects get developed and financed in other countries is completely different than it is in China,' Mr Meyer said. 'For both the domestic Chinese product and the company

itself, there is very little record of reliability.'

One problem that both solar and wind industries are facing is a shortage of components. For the solar panel industry, the bottleneck is the short supply of silicon. Wind turbine factories on the other hand are struggling to build the supply chains needed to meet their orders. Mr Meyer said new entrants might be trumpeting more aggressive capacity plans than they would eventually realise in order to secure supply deals with component makers.

Mr Liu said: 'In 2007, we had the capacity to do 300 megawatts but due to a shortage of main components we only delivered about 200 megawatts. Some key components, such as the main bearing, are very difficult to source. You can wait 18 months for a main bearing now.'

As with any growing company in the mainland, many domestic manufacturers want to take their companies public and cash in on buoyant markets.

Goldwind, the largest domestic manufacturer, is planning an A-share listing and possibly an overseas listing. Market sources say the company has been in talks with Goldman Sachs to lead the offering. However, the industry is expected to hit overcapacity and then consolidation within two to three years, making their investment story less predictable than that of the solar panel industry.

'The problem with wind is that the rate of return on wind farms is still relatively low - in the high single digits. Returns have been depressed by sub-economic bidding by large mainland power companies intent on raising the proportion of renewable energy megawatts on their balance sheets,' said Anthony Wilkinson, head of research at CLSA Capital Partners, which manages the Clean Resources Asia Fund.

Mr Soares said mainland wind farms delivered a 9 or 10 per cent return on capital versus global averages of about 14 per cent. Lower margins and the effect this has on equipment margins could mean that some manufacturers will have to wait to go public and follow the path of solar companies that have cashed in.

'The solar business may be a bit more transparent [because it is export-driven and not reliant on domestic policy and state company demand], but the size of opportunity for both is huge. China's wind potential is 600 times actual wind capacity,' Mr Wilkinson said.

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