

Taking India by storm

After years of sluggish growth, the **Indian wind market** made **significant progress** in 2011. But rumours about the abolition of tax incentives are causing **uncertainty**.

By Andrea Röder

The days of political lethargy and half-hearted investors are over – or so the latest developments in India, the world's second-largest emerging market, would seem to suggest. In 2010 the country installed almost twice as much capacity as it did in 2009, a disastrous year for the sector. 2010 was also the year that India exceeded the 2,000-megawatt (MW) mark for the first time. As they had done for many previous years, manufacturers, developers and investors predicted that 2011 would be a resounding success – but this time they were actually right.

India's Ministry of New and Renewable Energy said that the country had a total wind capacity of 15,880 MW at the end of 2011. Of that, 2,827 MW was newly installed capacity. The ministry expects as much as 3,500 MW of new wind capacity to be added during the country's fiscal year, which runs from 1 April 2012 to 30 March 2013. One way or another, India ranks third in new installation worldwide after China and the USA (see page 26).

Sean Sutton, president of Vestas Asia-Pacific, believes that this is only the beginning: "The political reforms will attract more and more investors to the region." Various market analyses confirm his optimism. For example, HSBC Global Research expects capacity growth of 7,500 MW from a "new breed of developers alone". And the Indian market research company RNCOS, which is based in Noida, predicts annual growth of 14 percent between 2011 and 2014.

The positive developments are the result of decreasing turbine prices and new nationwide support schemes such as the generation-based incentive (GBI) and renewable purchase obligations (RPO), as well as the credit trading scheme that was launched with RPO (new energy 1/2010). For just over a year the country's two electricity exchanges, the Indi-

an Energy Exchange (IEX) and the Power Exchange of India (PXIL), have auctioned Renewable Energy Certificates on the last Wednesday of every month. Demand is visibly increasing. A total of 46,400 certificates were traded in September 2011. This climbed to 95,500 in October and to 105,000 in November. Over 90 percent of the transactions took place on the IEX. In November 2011 the average price was between INR 2,800 and 2,900 (around EUR 40).

An end to the tax model?

The GBI currently exists as an alternative to the flat-rate tax depreciation model, but is generally regarded as less lucrative. In the summer of 2008, the Ministry of New and Renewable Energy introduced a feed-in tariff for photovoltaic plants and a tax credit per kilowatt-hour (kWh) of wind-generated electricity. The latter incentive initially only applied to wind projects of up to 49 MW. This limit was lifted in December 2009 and now projects with capacities of up to 4 gigawatts (GW) are eligible for support. The rate for each kilowatt-hour of electricity fed into the public grid was set at INR 0.50 (EUR 0.007); the maximum funding period is ten years.

Although the model is scheduled to end in March 2012, renewables minister Farooq Abdullah has announced that it will be continued. At the same time Abdullah, like his counterpart at the Ministry of Finance, has called for the tax model to be abolished in the near future: "The GBI pays for actual capacity. The depreciation model doesn't really manage to do that." The model allows wind power producers to offset 80 percent of their investment costs in the first year of operation. Their earnings are also exempt from tax for ten years.

Disreputable investors looking to make a quick profit have frequently tak-

en advantage of this model. Nevertheless, industry representatives fear that abolishing it could put the brakes on the market. "We have seen some adverse effects on demand, and some smaller players have dropped out," says Mahesh Makhija, director of renewables at CLP India, a subsidiary of CLP Holdings and one of the country's largest wind farm developers. However, an increase to the GBI feed-in tariff, which the sector wants, seems just as unlikely as a top-up to the GBI's original total funding of INR 3.8 billion (EUR 66 million).

Tanti defends his title

Although India is still struggling to achieve stable conditions, the industry and investors appear self-confident. Tulsii Tanti, the chairman of Suzlon, is the most confident of them all. He wants to reduce his company's enormous debts and defend its leading position on the domestic market. And he has already chalked up a first success: figures from the Indian Wind Turbine Manufacturers Association (IWTMA) show that in 2011 Suzlon managed to increase its market share in India from around 30 percent (2010) to 45 percent.

At the end of 2011, Samanvaya Holding, one of Suzlon's largest shareholders, sold 37 million shares in the company. The deal made headlines, but Tanti said that it was part of corporate strategy. He explained that the money raised would be used to purchase 8,000 hectares of suitable turbine sites in various Indian states. "We are receiving a lot of orders and can only maintain our growth if we have the necessary land and infrastructure," Tanti said.

His clients increasingly come from the energy sector. Orient Green Power Company is one such example. Apart from biomass and small hydropower plants, the Chennai-based developer focuses on

wind farms. It has ordered 100 megawatts of turbines from Suzlon alone.

Apart from a planned rotor blade factory in Madurai, southern India, Tanti does not seem to have any plans to expand in his native country. Instead, he is looking to other newly industrialised countries. Two rotor blade plants are to be set up in Brazil and South Africa this year. The South African government awarded a tender for wind projects of 1,416 MW to Suzlon in December 2011 (see page 7).

Suzlon might be doing well, but the competition is not asleep. Eighteen domestic and international manufacturers currently offer 45 different turbine models in India. The Indian wind industry's production capacity could increase to 10.5 GW this year.

One newcomer to the market is Indian manufacturer Garuda Vaayu Shakthi, which is currently having its 700-kW turbine tested and certified. In December, Titan Wind Energy from Singapore announced that it wanted to invest just under USD 12 million (EUR 9.2 million) in India. The plan is that its Indian subsidiary will first concentrate on wind and other renewables projects. A factory producing wind turbines and components could be set up in the future.

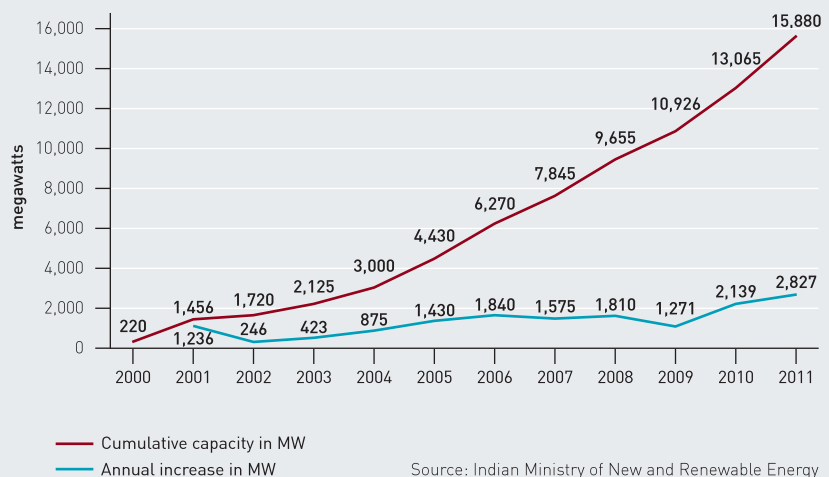
Regen Powertech, a licensee of the German company Vensys, had a very successful 2011. It installed 550 MW – more than double the 2010 figure of 225 MW. The company has announced that up to 700 MW are possible in 2012. Madhusudan Khemka, a member of the board of directors, says that a new client profile is the reason for this growth. Almost all of Regen's orders come from new independent power producers rather than from "investors who are only interested in tax breaks".

Non-Indian manufacturers are also benefiting from the boom. Gamesa al-



India's wind market is growing

Annual increase and cumulative capacity in megawatts (MW)



most tripled its sales in India last year, and received a record-breaking order of 2,000 MW from the independent Indian power producer Mytrah Energy (MEIL). "This order underlines the growing importance of wind energy as a practical and profitable solution for companies that want to reduce their carbon emissions while still meeting their electricity needs," says Ramesh Kymal, managing director of Gamesa in India. MEIL wants to install an impressive 5,000 MW of wind capacity in India by 2017.

As an expert on renewable energies in the Confederation of Indian Industry, Kymal played a major role in drafting a position paper that called for at least twelve percent of Indian electricity de-

mand to be covered by renewable sources by 2017. Kymal says that the government commented "very positively" on the recommendation. He hopes that the target will be included in the new five-year plan that runs from 2012 to 2017. India's government has set a goal of building around 30 GW of renewable capacity in this period. Around 22 GW were online by the end of 2011.

There is still plenty of room for further growth. The Ministry of New and Renewable Energy set up over 600 wind monitoring stations last summer to get a clearer idea of India's wind potential. The findings will be evaluated over the course of this year by the Chennai-based Centre for Wind Energy Technology. ◀