

Wind power among India's fast-growing sectors

It is one of the fastest-growing industries, exciting international venture capitalists (VCs), private equity firms, MNC behemoths, non-resident Indian investors, Indian public sector giants, and private sector majors. International and domestic majors who have invested — or plan to invest — in the burgeoning wind energy sector include GE, the \$150 billion U.S. giant, leading Danish wind turbine maker Vestas, Indian public sector majors Oil & Natural Gas Corporation (ONGC), Hindustan Petroleum Corporation Ltd. (HPCL), Nuclear Power Corporation and MMTC, NRI entrepreneur C. Sivasankaran, private sectors players Reliance Energy and Suzlon Energy, and VCs and private equity companies Bessemer Venture Partners and ChrysCapital.

This is not surprising, considering the phenomenal growth of the wind energy sector in the country. The Brussels-based Global Wind Energy Council (GWEC), which opened a chapter in New Delhi in April, says India was the strongest market for wind energy in Asia in 2005.

Last year, India overtook Denmark and emerged as the fourth-largest wind energy market in the world (after Germany, Spain and the U.S.), with a capacity of 4,430 MW. It saw the addition of 1,430 MW of new installed capacity in 2005. Globally, total installed capacity of wind power is almost 60,000 MW.

"Wind power will continue to grow rapidly at an average rate of 18 percent per year up to 2010," says Arthouros Zervos, chairman, GWEC. "This will take the total installed capacity up to 134,800 MW worldwide by 2010, reaching 17,800 MW of new installations in 2010."

International wind markets grew by a hefty 40.5 per cent in 2005 (adding 11,500 MW to installed capacities). The investment involved in generating equipment alone was nearly \$15 billion. The Asian market for wind energy is expected to register an annual growth rate of 23.5 percent up to 2010, and total capacity should touch 20,100 MW (from 7,000 MW last year). India will lead, followed by China, Japan, South Korea and Taiwan.

About 50 countries have regulations governing development of renewable energy like wind. With the sharp escalation of crude oil prices, many more countries are expected to set up wind farms.

India was among the first nations to set up a Ministry for Non-Conventional Energy Sources. Says Vilas Muttemwar, Minister



India is the fourth-largest wind energy market in the world.

for Non-conventional Energy Sources: "We are witnessing unparalleled growth in the wind energy sector in India. Nearly all the installed capacity has come from the private sector, without which this development would not have been possible."

Ramesh Kymal, chairman of the Indian Wind Turbine Manufacturers Association (IWTMA), notes that though the official potential for wind power in India has been assessed at around 45,000 MW, the industry projects it as high as 100,000 MW.

India, which has in the past been acknowledged as the new "wind superpower", has an ambitious programme for wind energy generation. According to the Planning Commission, India's power generation capacity is expected to go up from the present 130,000 MW to about 630,000 MW by 2031.

Non-conventional sources — including wind, small hydro-electric and bio-mass projects — will account for about 80,000 MW, with wind alone contributing about 45,000 MW.

About 160 sites have been identified in over a dozen states as potential wind farms. Surveys are being conducted in the rest of the country to estimate the potential for wind power generation. Besides the relatively low cost of wind power—about 7.5 cents a unit—capital costs are also competitive. According to industry estimates, it costs a little over \$1 million for one MW of wind power. The Central government—and even some of the state governments—offers a slew of concessions to entrepreneurs putting up wind farms. These include

tax write-offs, accelerated depreciation, soft loans, and incentives for foreign investments.

Returns on wind energy projects are superior to bonds and government securities, and don't have the risks and the volatility of the stock markets. Many high net worth individuals are believed to have invested in the growing number of wind energy farms that are being set up in states like Tamil Nadu, Karnataka, Maharashtra, and Rajasthan. Public sector majors have also unveiled investment plans in this sector. State-owned ONGC, which is the country's leading oil exploration and production firm, plans to set up wind power projects in Gujarat, Karnataka, Tamil Nadu and Andhra Pradesh. It will start with 50 MW projects in Gujarat and Karnataka. ONGC has tied up with Power Trading Corporation, another state-owned firm, to lift wind energy from its plants. According to N.K. Mitra, ONGC's director (offshore), the company will invest about \$8.7 million for the two windmills in Gujarat and Karnataka. Power generated out of these windmills will be cheaper than conventional grid power, leading to major savings.

HPCL is also looking at states like Maharashtra, Karnataka and Andhra Pradesh, for its wind park projects. The company has identified over half a dozen sites. Like ONGC, it plans to sell power to the national grid or to state electricity boards. HPCL, which operates several refineries, plans to invest over \$200 million for these projects, which could add up to a neat 500 MW of power.

PASSING THROUGH



Vice President and PM of U.A.E. and Ruler of Dubai, Sheikh Mohammed bin Rashid Al Maktoum with President A.P.J. Abdul Kalam, in New Delhi on March 26.



Bahrain's Crown Prince Shaikh Salman Bin Hamad Al-Khalifa called on Prime Minister Manmohan Singh, in New Delhi on March 20.



Commonwealth Secretary General Don McKinnon called on Prime Minister Manmohan Singh, in New Delhi on March 23.



Israel's Deputy Prime Minister Shaul Mofaz with Union Minister of External Affairs Pranab Mukherjee, in New Delhi on March 20.



Minister for Economic Affairs and Energy of the North Rhine-Westphalia, Christa Thoben, with Union Minister for Commerce and Industry Kamal Nath, in New Delhi on March 23.



Mauritian IT and Communications Minister Etienne Sinatambou with his Indian counterpart Dayanidhi Maran after exchanging an MoU, in New Delhi on March 22.

COMING EVENTS AT NEHRU CENTRE

Tuesday, April 3, 6.30 PM.
Dance: Bharatanatyam — Satyam. By Sarra Whicheloe
Through the character of the heroine and her relationship with her lover (her lord), Sarra Whicheloe explores the illusion of dreams and the illusiveness of the truth.

Wednesday, April 4, 7 PM.
Book Launch/Presentation: Sahyadris: India's Western Ghats — A Vanishing Heritage. By Kamal Bawa and Andrew Mitchell
This book highlights the

beauty and incredible diversity of life in the mountains that stretch nearly 1,600 km along the south-western coast of India.

Thursday, April 5, 6.30 PM.
Presentation: Madhushala: Ek Diya Susangam (Hindi). By Dr. Ashok Chakradhar
To celebrate the centenary of famous poet Harivansh Rai Bachchan, father of superstar Amitabh Bachchan, Dr. Ashok Chakradhar will make a presentation based the poet's preface of *Madhushala*.

Tuesday, April 10, 6.15 PM.
Exhibition of Photographs: Raj Bhavan, Kolkata. By Sampath Kumar
The splendour of the Raj Bhavan in Kolkata will be displayed through 65 photographs taken by Sampath Kumar.

Wednesday, April 11, 6.30 PM.
Book Launch: Bujhey diye ki aarti (in Hindi). By Mahendra Dawesar 'Deepak'
Mahendra Dawesar, an acclaimed story-teller, presents a collection of 13 stories.

Thursday, April 12, 6.30 PM.
Illustrated Talk: The Riches of Rajasthan. By Janet Edwards FRPS and Dr. Philip Lawson FRPS
This lecture is compiled from numerous visits to Rajasthan and other northern regions.

Friday, April 13, 6.30 PM.
Music: Hindustani Vocal Recital. By Kankana Banarjee
Kankana has many records and audio cassettes to her credit, including the Darbari Kanara 'Tarana' of Amir Khusrau.

The Nehru Centre is located at 8, South Audley Street, London W1K 1HF. For further details please visit the website at <http://nehrucentre.org.uk>

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