

Vestas RRB India – A wind energy technology leader

Wind is the most cost effective of the renewable energy resource and is widely distributed around the world. The technical feasibility of using wind as a major source of energy has now been established. Wind energy today ranks as one of the most promising of the renewable energy technologies for generating electricity. The total installed capacity of power from renewable energy sources today in India is estimated at nearly 4,200 mw, with contribution from wind power alone of more than 1,869 mw. Today India is the fifth largest wind power producing nation in the world after Germany, the US, Spain and Denmark. The gross wind power potential in India is put at 80,000 mw.

Vestas RRB India Ltd. (Vestas RRB) is an Indo-Danish joint venture set up for the manufacture of Vestas type wind electric generators (WEGs). Vestas RRB is promoted by RRB Consultants and Engineers Private Ltd. (RRB) and Vestas Wind Systems A/S (Vestas) of Denmark. Vestas RRB was established in 1987 with the main objective of producing world class wind electric generators in India for harnessing wind power.

Vestas RRB is an associated company of the Vestas Group which has put up around 14,500 wind electric generators aggregating over 7,000 mw in the world which are operating successfully in around 40 countries. The Vestas Group has a current turnover of 1.4 billion euro.

The company has installed more than 1,000 WEGs in the country producing about 250 mw and operating successfully in Gujarat, Maharashtra, Tamil Nadu, Orissa, Madhya Pradesh, Kerala and Karnataka. The turnover of the company for the last financial year was Rs. 110 crores and the expected turnover this year is around Rs. 300 crores. Based on the market projections the company is set to achieve a turnover in excess of Rs. 1,000 crores in the next three years.

The life cycle of a wind turbine is around 20



Mr. Ravish Bakshi, Managing Director



Vestas' corporate office in Chennai

years, and hence the investment in this field is of long term one. Keeping this in mind, Vestas RRB has decided that its wind turbines should meet the major criteria like maximum energy output, maximum machine availability, quality of power generated to suit the grid, and the minimum sound level to avoid noise pollution. These criteria have set a standard in the industry, resulting in overwhelming response from the purchasers.

Vestas RRB's other achievements include:

- First to install a mega project in the country.
- First to install a project in co-operation with DANIDA.
- First to introduce the pitch regulated technology designed wind electric generators.
- The first machine certified by the Centre for Wind Energy Technology (C-WET) on behalf of the Ministry of Non-Conventional Energy Sources.
- First to achieve annual highest plant load factor (PLF) of around 42 per cent.
- 500 kw wind electric generator specially designed for Indian wind conditions.
- ISO 9001 - 2000 Certification for manufacture, installation and servicing of wind turbines from Det Norske Veritas (DNV), Netherlands.
- Installed demonstrated projects in many States in India.

The company WEGs are specially designed for Indian climatic condition. The electrical system withstands erratic grid condition. Assured quality with highly reliable components, simple user-friendly local control system, option for central monitoring control system and specially designed lattice tower are the attractive features of the generator.

After-sales service

As an original equipment manufacturer Vestas RRB possesses the expertise and up-to-date service experience, knowledge and specially calibrated tools for quality maintenance with support extended by its collaborator, Vestas Wind Systems A/S of Denmark. The inventory of spares is being maintained at every required location, to enable the service staff to carry out immediate rectification, thereby increasing the efficiency and production of WEGs.



Maj. Gen. (Retd.) S.D. Singh,
Vice President (Operations)

Vestas RRB India has completed 15 years in producing world class WEGs for harnessing wind power. It has gained vast experience in this field and is sure to play a major role in the Asian region by helping other developing countries in the region to harness wind power for generation of electricity towards attaining greater self-sufficiency and cleaner and greener sources of energy. This will help the Asian region in abating global warming and mitigating the effects of climatic change.

In the next 10 years around 100,000 mw of power generating capacity is expected to be added to the Indian grids, 10 per cent of which is expected to come from renewable energy sources. Out of this, 10,000 mw renewable capacity, at least 6,000 to 7,000 mw will come from the wind energy sector.

As India marches towards supremacy in wind power generation, every unit of power added would be a small step towards increased self-esteem. As the saying goes, 'a small progress everyday adds up to big results', and tracing our path in the last decade in wind power generation, India has no doubt developed the will to achieve the goal of becoming the 'Wind Super Power' in the coming years.

Mr. Rakesh Bakshi's role

Even at a very young age, Mr. Rakesh Bakshi, Managing Director, Vestas RRB India Ltd., recognized the great potential that alternative sources of energy offered, and so committed all his strengths and resources towards developing them. Renewables play a significant role, especially in the context of the need for abating global warming and mitigating climate change. He has successfully promoted and implemented advanced climate-friendly technologies past the demonstration phase, more particularly by converting renewable sources of energy into heat and power.

Mr. Bakshi is therefore considered a pioneer in the field of non-conventional energy sources in India, having contributed extensively to harnessing and promoting renewables for everyday energy needs. In recognition of this immense contribution in the crucial area of alternate sources of energy, the Government honoured Mr. Bakshi with the Padma Shri on the Republic Day in 1991.

Mr. Bakshi has been in the forefront in most spheres of life. He is a first-class graduate in Mechanical Engineering