harnessing wind energy
WHY WIND ENERGY

Green clean power.
No emission or hazardous waste.
CO₂ - neutral.
No consumption of fossil fuels.
Fuel free.
Low operating cost.
Indigenous and Inexhaustible.

WIND AS ENERGY

Fastest growing source of renewable energy in the World.

Cleanest source of energy.
Technology has developed dramatically.
Low gestation period.
Can be expanded in a short time span.
Decentralised power generating station.
Is competitive with conventional forms of energy.

WIND REGIMES IN INDIA

Influence of Monsoon circulations on wind climatology:

Best wind speed during the Southwest monsoon i.e. from May to September.
Low wind speed during the Southeast monsoon i.e. from November to March.
THE COMPANY

The Company has been incorporated in the year 1987 with the main objective of producing world class Wind Electric Generators (WEGs) in India for harnessing of power from wind.

We offer custom-built turnkey solutions in the area of harnessing wind energy for power generation, which includes site selection, micro siting, preparation of detailed project report, project engineering, erection, commissioning and after sales service of the wind power projects.

OUR GOAL

To make wind power competitive and at par with conventional sources of energy such as thermal power, oil and gas.

OUR PHILOSOPHY

Blades are the heart of the WEG and Controllers are the brain.

We manufacture our own blades and micro processor based WEG Controllers thereby ensuring high quality, efficiency and safety during operation of the WEG.

VISION STATEMENT

To be a technology driven Company and to produce world class WEGs at an economical cost.
SALIENT TECHNICAL FEATURES

Proven Design
Our WEGs are designed to withstand severe environment conditions. The robust design ensures higher level of safety, reliability and a longer life span.

Climatic Shield
Our WEGs have been specially designed to suit the Indian climatic conditions and have extra in built protection for lightening and voltage fluctuations.

Advance Control System
DSP based remote monitoring and control option enhances the ease of operation.

Trouble Free Service
Advance hydro dynamic fluid coupling and highly reliable components ensure trouble free operation of the WEG during its life span.

Optimal Pitch Regulation
Microprocessor controlled and hydraulically operated pitch regulation ensure continuous and optimal adjustment of the blades as per the prevailing wind, thus ensuring optimum wind power generation.

Grid Compatibility
Our WEGs are grid friendly as they are designed to generate harmonics free power.
CREDIBILITY IS NO COINCIDENCE

To us, credibility means proven technology, proven performance thus gaining the customers’ confidence.

As buying a WEG means entering into a long-term relationship, it is vital to know that your supplier is a Company you can count on.

It is a fundamental Company principle to develop WEGs using well-proven and well-tested technology.

Our aim is to deliver reliable, high-quality products that will give you excellent service year after year during their life span.

We document the energy output, availability, power quality and sound levels of all our WEGs before delivering them to our customers.
SCHEMATIC DIAGRAM OF THE WEG

STRUCTURE OF PS-600 kW WEG

1. NOSE CONE
2. ROTOR BLADES
3. BLADE BEARING
4. TRAVERSE & CONNECTING ROD
5. YAW GEAR
6. MAIN SHAFT & BEARING ARRANGEMENT
7. YAW TOP
8. GEAR BOX
9. SHRINK DISC
10. COMPOSITE COUPLING
11. GENERATOR
12. HYDRAULIC UNIT
13. WINDVANE & ANEMOMETER
14. NACELLE COVER
15. TOP CONTROL UNIT
16. MINI CRANE
17. BED FRAME
OUR STRENGTHS

More than 2000 WEGs are being operated successfully at numerous locations in various States of India.

ISO 9001:2008 & 14001:2004 certification from DNV.

WEGs sizes being offered: 500 kW and 600 kW.

We provide custom-built turnkey solutions in the area of harnessing wind energy for power generation i.e. concept to commissioning and after sales service.

Our WEG installations are spread across various States of India i.e. Tamil Nadu, Kerala, Karnataka, Maharashtra, Madhya Pradesh, Gujarat and Rajasthan.

Customer base comprises of a broad spectrum of manufacturing and service industries.

Backed-up by prompt and efficient after sales service provided through highly skilled, well trained and dedicated service personnel.
OUR SERVICE EDGE

Guaranteed Quality
We ensure the supply of world class, time tested WEGs which far exceed the customer expectation at every level. The percentage of repeat orders received by our Company is the real proof of the success of this philosophy.

Work Force
Our committed, highly skilled and experienced work force enables the timely completion of supply, erection and commissioning of the WEGs as per the agreed schedules.

Turnkey Expertise
More than 20 years of experience in the Indian Wind Energy sector enables us to provide technological cum project expertise, which is unparalleled in the Indian Wind Energy Market.

Proximity to the Project Sites
The proximity of many of our offices to the project sites gives us the advantage to attend service calls at short notice, which in turn reduces the machine breakdown time.
**24x7 Operation & Maintenance**
We provide a comprehensive O&M package backed by well trained and highly skilled personnel.

**Generation Report**
Our customers can monitor the monthly performance of their WEGs through a Central Monitoring and Control System.

**Key Account Management**
For large projects of capacity of 50 MW and above we provide a dedicated Project Manager for our esteemed customers thereby ensuring a quick and single response.

**Indigenization**
Years of Research & Development have helped us to highly indigenize our product ranges thereby making our products more efficient, robust and cost effective.

**Infrastructure**
A WEG manufacturing facility at K.K. Nagar (West), Chennai, WEG blade manufacturing facility at Poonamallee, Chennai and WEG controller and parts thereof manufacturing facility both at Poonamallee, Chennai and in New Delhi provide us the basis for producing world class WEGs for the growing Indian and International market.
OUR TURNKEY SOLUTIONS INCLUDE

Wind data assessment & site selection.

Micrositing.

Infrastructure development.

Levelling of required land.

Approach road development.

Development of power evacuation facilities.

Civil works including tower foundation and control room construction.

Erection of WEG.

Electrical works.

Overhead line from hooking point of the State Electricity Board (SEB).

Testing, commissioning and grid interfacing of the WEG.

Round the clock operation and maintenance for the entire life period of the WEGs.
RRB ENERGY LIMITED
(Pioneers in Wind Power Since 1987)

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