



Wind India 2006

Deliberations during Seminar



Inaugural Session

Shri Viney Khore

*(Minister for Non
Conventional Energy
Sources)*

- Put great emphasis on 100% indigenisation of WTG and components.
- Industry need to gear up to exploit tremendous Great export potential.
- Need for development of new performance based incentive mechanism as Production Tax Credit (PTC)
- Renewable energy in general and wind in particular will have to play critical role to ensure energy security for the country.

Shri Mohan Dharia

Padmavibhushan

- Emphasis on rural electrification using renewable energy technologies
- Need to look at alternatives to grid expansion

Shri V Subramanian

(Secretary MNES)

- Wind has significant contribution towards economy of the country.
- Attention need to be focused on development of hybrid systems such wind & solar or wind & Bio-fuels.
- Necessity to harness Low Wind Regimes.
- Service organisations need to come in big way.
- Focus on development of globally recognised certification mechanism

Session 1

CEO Forum : Indian Wind Power 2017



Mr. Tulsi Tanti
(CMD, Suzlon Energy Ltd)

- Gave insights into global and Indian wind energy sector
- For sustainable development Energy, Economy and Ecology need to be considered.
- Focused towards development robust Regulatory & Policy Framework.
- He stressed on key growth drivers for wind sector such as cost competitiveness, energy security & environmental awareness.


Mr. N K Gupta
(MD, LM Glassfibre)

- Need to develop supportive policy and regulatory framework..
- Energy security is key to sustainable industrial growth.
- Explained growth of Glass fibre and associated industries..

Mr. K V S Subrmanian
(GM - MSPL Limited)


- Largest wind power developer in the country with 160 MW capacity.
- Enabling framework for captive and wheeling transaction is required.
- Wind manufacturers should provide performance guarantees.

Session 2 *Integration of Wind Power with Grid*



Prof. S A Khaparade
*(Dept. of Electrical
Engineering, IIT Mumbai)*

- Focused towards Power Quality & Grid integration Issues.
- Development of forecasting techniques for wind speed measurement.
- Discussed grid integration issues for various types of wind turbines
- No serious implications till wind reaches 10% of installed capacity



Mr. P R Raghuram
*(AGM SLRDC
PGCIL, Bangalore)*

- Addressed various Issues required for better system operation.
- Need to address load forecasting procedures to facilitate operations
- Indian system operates without online reserves.
- Demonstrated with real life example behaviour of regional grid



Mr. M Rasmusen
Vestas Denmark

- In Denmark, renewable and CHP constitutes 33% of total capacity
- Explained development of wind & CHP capacity over last two decades
- Voltage deviations managed in $\pm 1\%$
- Short circuit currents at 20X level

Session 3

HRD and R&D for the Sector

Mr. Rajendra V kharol
(Fellow WISE, Pune)

- Require about 28 persons per MW
- Need for HR development in Indian Wind industry to cater shortage of skilled and trained manpower.
- Need to start full time academic programmes for minimizing demand - supply gap in the wind industry.

Mr. S K Gupta
(Prof. Centre for
Measurement and
Evaluation, NITTR)

- Need to revise the course curriculum developed by C-WET
- Initiatives required to involve educational institutions to develop technical education for developing experts in Wind Sector.
- Multi-disciplinary course targeted towards wind sector to be designed.

Prof. Sujay Basu
(School of Energy,
Kolkata)

- Recommended WISE to take up “weakness of GRID” on priority.
- Emphasized on De-centralised Generation in remote and rural areas.
- Emphasized on making research Team specifically dedicated to harness and develop Wind Sector in India.

Dr Satyajit Mathew
(Assistant Prof, KCEAT,
Kerala)

- To sustain 25% growth rate, increase in R&D investment is MUST.
- Explained various aspects of R&D such as rotor aerodynamics, wind resource assessment, turbine engineering, grid integration issues and environmental aspects.

Session 4 *Economics, Financing & Market Development*



Mr. Joseph Chaly
(Director, NEG MICON)

- Dealt with market distortions, global and Indian scenario
- Mismatch in potential and achievement across States due to policy issues
- Discussed market barriers for growth .

Mr. G N Kamath
(Karma Energy)

- Discussed alternate business models and creative marketing concepts
- Highlighted issues such as infrastructure, power evacuation, design for Indian conditions etc.

Mr. Chintan Shah
(GM - Senergy Global)

- Discussed investor perspective for wind energy projects.
- Impact of change in policy framework on economics of wind investment.
- Necessity to move from “tax driven” to “performance driven” models..

Session 5 *Economics, Financing & Market Development*



Mr. Jotdeep Singh
(Rabo Bank)

- Explained wind energy financing in other countries such as Netherlands
- Need for non-recourse financing for wind projects
- Appropriate regulatory framework such as RPS, OA etc.

Ms. Pushkala L Ratan
(NEG Micon)

- Elaborated on carbon credit mechanism and 'key essentials' for implementation in Indian context.
- Need for enactment of 'International Trade transaction Law (ITL),
- Setting up of National Registry in India
- Highlighted difference between EUAs and CERs
- Need to appreciate the fact that every Wind Project would not be a CDM project.
- Evolution of guidelines and common understanding amongst all concerned for registration of the project.

Session 6 O&M, Supply Chain & Efficiency improvements




Mr. A.S.Karanth
(CEO, BF Utilities)

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Session 7 *Mainstreaming of wind power in India*



**Mr. Balawant
Joshi**
(ABPS Infrastructure
Advisory)

- Explained regulatory issues in the power sector
- Highlighted issues related to OA and captive transactions
- Need to develop more aggressive targets under Section 86 (1) (e)

Dr Ajay Mathur
(Director General - BEE)

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Action Plan for HR, R&D and Policy issues

- Necessary to develop about 40000 persons for wind industry alone.
- Existing courses at PG and Graduation to incorporate more general and elective subjects targeted towards wind industry.
- ITIs in wind farm areas should have special courses dedicated to wind industry
- State nodal agencies require significant institutional capacity building.
- Consortium approach may be adopted at national level to take up R&D projects.
- While product development may be taken up by industry, Govt to provide R&D assistance on basic issues such as grid integration, low wind regime turbines etc
- MNES to develop better data sharing mechanisms.
- State Nodal Agencies to take up with ERCs to set up aggressive targets under Section 86 (1)(e)
- IREDA should be permitted to tap cheaper sources of funds so that cost of funding could be lowered.