INDIAN WIND POWER ASSOCIATION
IWPA
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WINDPRO

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WWEA
World Wind Energy Association
Bonn, Germany

4th International Wind Conference & Exhibition

WE20 by 2020

21st Sunday to 23rd Tuesday June, 2015
at CODISSIA Trade Fair Complex, Coimbatore, Tamilnadu, INDIA

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Our groundwork enables our clean energy contribution to touch the sky

Our groundwork is what earns us the wings:

- **Robust operations -** from concept to commissioning and lifetime care thereafter
- **Comprehensive in-house manufacturing facilities –** including complete turbines and towers
- **Turbine technology -** reliable and proven gearless technology
- **Holistic solutions –** to all wind energy related financial / regulatory / CDM aspects
- **Proven track record -** 18 years of operation; capacities exceeding 4200MW

WIND WORLD
Clean Energy Forever

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Dr. R Venkatesh, President, Power Quality Solutions, EPCOS India, Nashik

From the Chairman's Desk

Dear Friends

Let me first of all thank all those Members who had attended the Conference and made it a grand success. My special thanks to Ms. Varsha Joshi, IAS, JS, MNRE, Mr. V K Agrawal, ED, POSOCO and Mr. Rajesh Lakhoni, Energy Secretary, Government of TN for their active support. I also thank the speakers, sponsors and exhibitors who had participated in the event. In this Issue we have given a gist of the proceedings at the Conference which we trust would be of use to all our Members.

Must Run status: The favourable decision of interim Injection of Grid dropping of wind Mills on 8.7.2015 given by the High Court of Madras in the MUST RUN Case is a welcome sign. To break the deadlock of the established fossil fuel stronghold, Renewable Energy needs support from all quarters, especially legal and statutory help.

Renewable Energy Law: The draft of the Renewable Energy Law was circulated to Members inviting comments and suggestions. We will be sending the Associations' suggestions in a day or two. The provision of Deemed generation for the purpose of compensating the investors in RE will go a long way in attracting more investments in RE.

Fitting of LVRT on Wind Turbines: Your Association was invited by SPRC for discussions regarding compulsory fitting of LVRT (Low Voltage Ride Through) on the wind turbines. We had explained that in the case of certain class of machines i.e. stall regulated machines, it is technically not possible to fit LVRT. Even in other cases, for existing wind turbines, retrofitting LVRT is very expensive which needs to be compensated in some shape or form. However, your Association welcomes any move taken for the safety of the grid and new machines are indeed LVRT compliant. IWPA has requested correction of root cause, the fall in voltage level of Grid.

Task Force Meeting with TNEB: The Task Force Meeting was convened on July 20, 2015 by the Director Operations, TANGEDCO at Chennai. It gave your Association an opportunity to discuss more importantly, the Backing down Issues and review of the progress of the Wind Forecasting project for the entire State of Tamil Nadu.

RE Policy announced by Maharashtra: The RE Policy has been announced by the Government of Maharashtra. The gist of the policy is given on Page No. 39. We hope Maharashtra will take proactive measures in promoting Wind Energy.

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(For Internal Circulation Only)

Matters pertaining to Rajasthan: Your Association under the leadership of Shri Chandrasekhar Khunteta has met the top officials in the Rajasthan Government and brought the issues of backing down of wind mills and the delay in payment in Rajasthan to their notice. The ample Press coverage on these activities is given on Page No. 50.

Evacuation: It terms of the total absorption of wind energy, there is a definite improvement especially in Tamil Nadu and we thank the TNEB for their efforts in Cooperation. However, the backing down continues. To alleviate this problem we need to complete the installation up of the Communicative Energy meters which is under progress.

Status of Forecasting Project: When we had taken up this forecasting project we did not anticipate the numerous difficulties and the complexities involved. But let me assure you that the work is going on in full swing and we hope to complete the project in its entirety by August 2015.

ICEF (Innovation for Cool Earth Forum) is a prestigious Annual Conference organized by the Mitsubishi Research Institute (MRI), a Japanese think tank. In response to an invitation, your Association is pleased to nominate Dr. R Venkatesh, National Council Member, to present a paper at the Conference in Tokyo Japan to be held in October 2015.

With best wishes and regards

Prof. Dr. Kasthurirangaian
Chairman

Key suggestions & Action Plan of 4th International Wind Conference WE20 by 2020 held on June 21 to 23, 2015 at Coimbatore

THEMES	Actions required for meeting WE 20 by 2020		Entity with primary Responsibility
	IMMEDIATE (6-9 Months)	LONG TERM (12-15 Months)	
Grid integration & evacuation	1. Inter-State Wind Energy transactions to be enabled and promoted. Suitable infrastructure augmentation to be planned and executed to enable Inter-State Wind Energy transaction & to mitigate issues of backing down of wind generation in peak seasons (PGCIL/STU) 2. CERC and SERCs to provide clarity on applicable transmission charges for Inter-State Wind Energy transaction. "Rs/kWh" based transmission charges to be allowed for Wind akin to Solar Inter-State transactions. (CERC and SERCs) 3. Green Corridor to be implemented to enable seamless evacuation of RE power across state borders (PGCIL)	1. Transmission planning at State & Central level to necessarily consider evacuation of RE capacity additions planned in the State (STU/CEA) 2. Enabling framework to be formulated for RE to be given the status of must run and to be acknowledged through provisions of Grid Code/RE Act. (CERC/SERCs) 3. Implementation of Green corridor to be modified for revised RE target of GoI (PGCIL/MNRE) 4. Intra-State evacuation infrastructure to be commensurately strengthened to evacuate generation from RE pockets (STU/CTU)	PGCIL STU CEA CERC SERCs MNRE
Forecasting & Scheduling	1. Forecasting & Scheduling (F&S) is the key for increasing acceptability & for ensuring maximum evacuation of Wind generation. Centre to be supported/ persuaded to come out with realistic & implementable model for F&S at Centre & State level (CERC) 2. F&S and Deviation settlement mechanism to be framed so as to facilitate Inter-State RE transaction (CERC/SERC) 3. Expedite implementation of REMC at various LDC levels (POSOCO/MNRE)	1. Initiate activities for ensuring visibility of all pooling substation at SLDC (Utility/ Generator) 2. Providing metering facilities with Communication capability at all RE pooling substation (Utility/Generator) 3. Submission of proper forecasting of pooling station level and revisions thereof to SLDC – historic and real-time data sharing (Generators) 4. Technical coordinator is required at each pooling station that is able to transmit proper information and take action whenever required. (Generators)	CERC SLDC POSOCO MNRE Generators

THEMES	Actions required for meeting WE 20 by 2020		Entity with primary Responsibility
	IMMEDIATE (6-9 Months)	LONG TERM (12-15 Months)	
Repowering	1. Pilot projects to be identified at State level by SNAs (SNA/MNRE)	1. Repowering scheme be made as a part of the Renewable Energy Law (MoP/MNRE) 2. Adequate funds be provided from the National Clean Energy Fund (NCEF) with low rate of interest for repowering (MNRE) 3. MNRE to come out with the guidelines and incentives to be decided in line with the proposed business model which was discussed (MNRE)	SNA MNRE
Wind Solar Hybrid System	1. Pilot projects to be identified at State level by SNAs (SNA/MNRE) 2. In order to promote small wind segment, necessary guidelines for on Telecom Tower based wind solar hybrid system to be formulated (MNRE)	1. CERC/SERCs to be approached to come out with Generic or project specific tariff (FOR/CERC/SERC) 2. CERC/SERCs to be approached to provide clarity on metering & energy accounting framework for RE Hybrid system in context of technology specific RPO compliance. Model framework to be evolved by Forum of Regulators for adoption at State and Central Level (FOR)	SNA MNRE CERC SERCs FOR
Energy Storage	1. Sufficient Ancillary systems to be made available in the Indian Grid so as to increase the dispatchabilty of wind energy generators. Ministry/CERC to be approached to accelerate Policy & Regulatory support for development of Ancillary market including Storage market in the Country. (MNRE/CERC)	1. Framework of peak power pricing to be evolved at central level and adopted at State level (CERC/SERCs) 2. Clear policy direction is required to encourage adoption of storage technologies and investments in R&D and mass manufacturing to bring down costs (MNRE/CERC) 3. Along with battery storage, Compressed air storage should also be perceived & promoted as a viable option for wind energy storage. (MNRE) 4. Policy to be evolved for Vehicle to Grid Infrastructure. (MNRE)	

Gist of proceedings of 4th International Wind Conference & Exhibition - WE20 by 2020
Codissia Trade Fair Complex, Coimbatore

Day - 1 (June 21, 2015)

INAUGURAL SESSION

Lighting of Lamp

Lighting of the lamp by Chief Guest, Shri Rajesh Lakhoni, Principal Secretary, Energy, Govt. of Tamil Nadu

Lighting of the lamp by Shri Dilip Nigam, Director, MNRE

Welcome Speech

Welcome Speech by Prof. Dr. K Kasthurirangaian, IWPA Chairman

The Chairman, IWPA welcomed the gathering. He mentioned that this Conference was started with the aim of sensitising the concept of 20% integration of wind energy in the energy mix by 2020. He thanked the MNRE and the State Government officials for their support in the ongoing Forecasting project in Tamil Nadu undertaken by NIWE. He appreciated the efforts and support of the Tamil Nadu Government to absorb more wind energy.

Address by Director General, NIWE

Address by Dr. S Gomathinayagam, Director General, NIWE

Dr. Gomathinayagam explained that the goal of the Forecasting project undertaken by NIWE, is to enable SLDC to manage wind energy. This project is complex and challenging due to lack of historical data, machines of different power curves connected to the same Substation, etc. He explained that a hybrid model would generate forecast information by calibrating physical input from weather prediction models and historical wind farm observations using advanced statistical techniques. He thanked IWPA for initiating this project.

Day - 1 (June 21, 2015)

INAUGURAL SESSION

Keynote Address

Key note address on "Prospects & Challenges of Wind Energy in India to attain 20% grid penetration by 2020" by Mr. Stefan Gsänger, Secretary General, WWEA, Bonn

Mr. Gsänger mentioned that India should have overtaken Spain by now and is probably fourth in the world in terms of wind energy installations. If India follows Denmark / Germany in terms of land area, then it should have 370 GW of wind installations. In terms of capacity per capita as prevailing in Denmark then India should have 1,000 GW of wind mills. India should learn from Denmark as to how to integrate more wind energy and should move towards 100 Renewables, he said.

Awards Distribution Ceremony

Chief Guest - Shri Rajesh Lakhoni IAS, Principal Secretary, Energy, Government of Tamil Nadu distributing Awards for Best performing Wind Farms

IWPA gives awards to the Best Performing Wind Farms in memory of the late Mr. Chikoba who is considered as one of the pioneers of wind industry in India. These awards were instituted in 2006-7. This year 20 awards were given which were distributed by the Chief Guest Shri Rajesh Lakhoni, Principal Secretary, Energy Government of Tamil Nadu.

Inaugural Address by Chief Guest

Inaugural Address by Chief Guest Shri Rajesh Lakhoni IAS, Principal Secretary, Energy, Government of Tamil Nadu

Shri Lakhoni mentioned that in order to absorb wind energy, the annual maintenance of Thermal Stations is taken up during windy season. The State Government is doing everything possible within its constraints to maximise wind absorption. He pointed out that on a particular day the intra-day generation varied from 3,800 MW to 6,300 MW. The way ahead will be to treat wind as a national resource and wind absorption should not be State specific. The hydel power of other States should be used as Balancing and Spinning reserves to manage wide variation to facilitate increased absorption of wind. We should learn from Denmark, Germany and China as to how they are managing wind. He congratulated IWPA and NIWE for taking the first steps in wind forecasting.

Day - 1 (June 21, 2015)

SESSION 1: Policy & Regulatory Framework

Speaker

Key Policy and regulatory framework required by Special Guest - Shri Rajesh Lakhoni IAS, Principal Secretary, Energy, Government of Tamil Nadu

Shri Lakhoni mentioned that energy intensive industries should look at wind solar hybrid option since Solar is available throughout the year and its cost is continuously falling. Earlier, he had cautioned RE investors not to get carried away by high tariff offered by some States. One should consider whether evacuation will be sustainable on long term basis. He wanted IWPA to moot the idea of bringing about a uniform policy throughout the country for incentives in setting up RE projects.

Speaker

Renewable Energy Act 2015 by Mr. A Velayutham, Ex- Member, Maharashtra Electricity Regulatory Commission

Shri Velayutham mentioned that Central Government should consult State Governments before notifying policies including tax rebates, generation linked incentive, creation of National Renewable Energy Fund, etc. Based on the Electricity Act 2003, National Electricity Policy and National Tariff Policy were announced in 2005. He reviewed briefly the developments in RE during the last 10 years. Compared to policies and rules the Act is legally binding; he mentioned that investments should not be forced like Thermal generators to set up RE.

Vote of Thanks

Shri S V Arumugam, Vice Chairman, IWPA delivered the Vote of Thanks

In his address, Shri Arumugam, Vice Chairman of IWPA mentioned the losses suffered by the wind investors in general and Tamil Nadu in particular. He thanked the Principal Secretary, Energy, Government of Tamil Nadu for his support to the Forecasting project and requested him to ensure that backing down of wind mills to be kept to the minimum. He specially thanked the Secretary for accepting the invitation to grace the function, knowing fully well that he would be facing disgruntled investors.

Chief Guest inaugurating the Exhibition

Chief Guest Shri Rajesh Lakhoni IAS, Principal Secretary, Energy, Govt. of Tamil Nadu inaugurating the Exhibition

The Chief Guest inaugurated the Exhibition and visited the various stalls. He interacted with the senior officials of NIWE, POSOCO, Wind Turbine Manufacturers and other Exhibitors.

Day - 2 (June 22, 2015)

MAIN SESSIONS

SESSION 2: Challenges to be addressed to achieve 60 GW by 2022

Session Chairman : Ms. Varsha Joshi IAS, Jt. Secy., MNRE

Ms. Varsha Joshi IAS, Jt. Secy., MNRE chairing the session "Challenges to be addressed to achieve 60 GW by 2022"

Ms. Varsha Joshi mentioned that there has to be a transparency in sharing data by both the Developers and SLDCs. This year there is a kind of convergence in the wind sector. The industry has come forward to resolve the issues. Everybody in the wind sector wants forecasting to happen. She appreciated the work of TANGEDCO engineers who in spite of infrastructural handicaps are able to absorb more wind energy than the European countries who have sophisticated infrastructure.

Shri B B Mehta, CE, SLDC, Gujarat Energy Transmission Corporation Ltd. of delivering the talk on "Challenges to be addressed to achieve 60 GW - GETCL's Perspective"

Shri Mehta mentioned that Gujarat has 3,616 MW installed capacity of wind generation and in 2014-15, on 94 days the intra-day variability exceeded 1000 MW; yet Gujarat had not backed down wind. Wind energy is accommodated by backing down conventional units. He said that accurate forecasting, effective regulations and balancing mechanism helps in safe integration of renewable energy. There is a need of separate grid code for RE integration which will cover the entire value chain of RE business, he added.

Speakers

Section of the Audience

Members of the audience wanted to know from Shri Mehta as to how Gujarat SLDC was able to handle 1,000 MW variation that took place in a period of one hour. There were quite a number of questions raised and the interaction was lively and was a good learning experience to one and all.

Shri Ajit Pandit of Idam Infrastructure Advisory P Ltd. delivering the "Conference theme WE20 by 2020"

Shri Ajit introduced theme of the Conference. With capacity of 23,444 MW in 2015 and a cumulative target of 60 GW by 2022, translates to 6 GW per annum of wind capacity addition over the coming years which is challenging. He mentioned that discussions of the Conference would revolve around the themes of Grid integration & evacuation, Forecasting & Scheduling, Procurement, RPO & REC, Financing and should spell out the short, medium and long-term plan of action in order to achieve the target.

Speaker

Overview of the German Wind Market and the Lessons for India (address through Skype) by Dr. Kurt Rohrig, Deputy Director, Division Director Energy Economy & Grid Operation, Fraunhofer-Institut fur Windenergie und Energiesystemtechnik IWES, Kassel, Germany

Dr. Rohrig made an interesting presentation over Skype. He explained the conscious decision taken by Germany to promote RE. He mentioned how technology helped in increasing the installed capacity of wind mills where hub heights have increased to 150 m and rotor diameter to 110-120 m. The Feed-in-Tariff has been replaced by Direct Market based pricing. He mentioned that Germany needs to use only 2% of its land area to meet its target of 198GW and gave many valuable suggestions.

Speaker

Dr. Rahul Tongia, Brookings India delivering a talk on "The Global Perspective in achieving 60 GW by 2022"

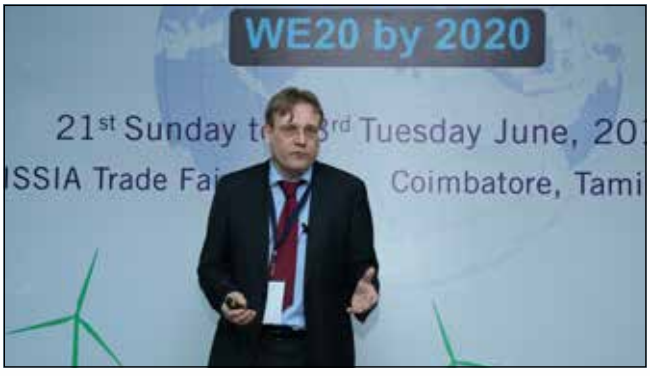
Dr. Tongia compared the global scenario with the prevailing situation in India. He mentioned that India lacks proper wholesale markets i.e. Mark-to-Market pricing; there are no incentives for fast ramping, storage, etc. and inadequate cross-state power flows. It is ironic that coal-rich states get a windfall and wind-rich states get headaches. The authorities should examine both i.e. the RE impact on the Grid and Grid's impact on RE. States should be helped with socializing the RISK and not just the costs.

Section of the Audience

Mr. Stefan Gsänger, Secretary General, WWEA, Bonn interacting with the Speakers

In response to a comment by the speaker that there is NIBY-ism among i.e. people do not want windmills to be located near their residences (Not In My Back Yard) for reasons of aesthetics, Mr. Gsänger mentioned that there is an increasing trend of community based local investments. When the locals are involved in the investment they do like wind mills in their area. He mentioned that POOL-ism (Please On Our Land) is catching up fast in many countries.

Speaker



Mr. Markus Wypior, IGEF Support Office delivering the talk on "Introduction to the Indo-German Energy Forum (IGEF) and the opportunities for private sector collaboration"

Mr. Markus explained that Germany has decided to support India in large scale RE integration and phasing out fossil fuel. KfW will provide the financing at concessional interest and IGEN would give the Technical assistance. The terms of reference of the Indo-German cooperation includes: REMC & Grid Balancing; Market design for RE integration; Grid Codes & regulatory aspects of Grid Management; Framework for short term pool of experts for adhoc support. Ernst & Young and Fraunhofer will also assist in this venture.

Day - 2 (June 22, 2015)

SESSION 2(a): Repowering

Session Chairman : Mr. Markus Wypior, IGEF Support Office

Session Chairman Mr. Markus Wypior, IGEF Support Office delivering a talk

Mr. Markus explained that the Repowering study has been undertaken by Idam Infrastructure on behalf of IGEF.

Shri Dilip Nigam, Director, MNRE sharing his views

Shri Nigam mentioned that if capacity increases by 30% and PLF by 3 times then the energy increases by 4 times. Most of the existing old machines are in the "gold mines" i.e. the best wind sites and the potential for Repowering is to the tune of 10,000 to 15,000 MW. This opportunity to enhance capacity should not be missed. However, Grid augmentation is one of the most important factor to be addressed before implementing Repowering, he added.

Speakers

Shri Ankan Datta delivering a talk on "Introduction to the Repowering Study conducted by the IGEF Support Office"

Shri Datta mentioned that sub-MW WTGs older than 10 years, around 18,500 Nos. have been identified in Tamil Nadu and Gujarat for Repowering. He explained the benefits of Repowering i.e. more wind power from the same area of land, fewer wind turbines; higher efficiency, lower costs; better power grid integration and modern turbines offer much better grid integration, since they use a connection method similar to conventional power plants and also achieve a higher utilization degree, etc.

Speakers

Shri Ajit Pandit of Idam Infrastructure delivering a talk on "Findings and outcomes of the Repowering study"

Shri Ajit mentioned that the findings of the Repowering study would be submitted to the Government within a week. The study includes the Market study, the development of a business model, the implementation roadmap and the draft guidelines. He mentioned that some of the major challenges in Repowering were multiple ownership of land, Evacuation, Tariff incentives, PPA modification, disposal of old turbines, etc. He explained that this study was prepared based on a questionnaire and discussion with stakeholders.

Day - 2 (June 22, 2015)

Speaker

Shri K R Nair, Vice President, IWPA NRC delivering a talk on "Repowering"

Mr. Nair mentioned that there should not be any compulsory removal of old WEGs for the purpose of repowering. As an option to repowering, intercropping of new turbines with higher hub height and rotor diameter may be considered so that the old WEGs is retained in between Repowering scheme be made as a part of the Renewable Energy Law, as and when enacted. Adequate funds be provided from the National Clean Energy Fund (NCEF) with low rate of interest for repowering.

Speaker

Shri Mahesh Vipradas, Suzlon sharing his views on Repowering from the Manufacturer's point of view

Mr. Vipradass mentioned that repowering with a potential of 15,000 MW is needed to achieve the targets set by the Government. He suggested that instead of seeing Repowering in terms of number of WTGs has to be viewed from the Distribution / Evacuation angle since Evacuation will pose the biggest challenge in the Repowering process, he added.

Speaker

Shri Dilip Nigam, MNRE sharing his views on "Repowering in India"

Shri Nigam mentioned that this Repowering Session was also supposed serve as a consultative process to enable the Ministry to come up with effective policies on Repowering.

Q & A Discussions

Audience interacting with the panel members

Shri Rajiv Samant of Tatapower mentioned that in Maharashtra, the refund of Sales Tax in respect of projects set up under SICOM should also be factored while arriving at the policy for Repowering. A member from the audience pointed out that financially an old machine's performance is good then why replace? To which Mr. Datta replied that it would be sub-optimal use of a national resource.

Day - 2 (June 22, 2015)

SESSION 3(a): Power Evacuation and Large scale integration of WE in grid

Session Chairman : Shri V K Agrawal, ED, NLDC

Session Chairman Shri V K Agrawal, ED, NLDC sharing his views on "Power Evacuation and Large scale integration of WE in grid"

Shri Agrawal mentioned that more RE can be integrated and its variability can be better handled with Larger Grid interconnection. With Forecasting, operational planning can be better executed and with Scheduling accountability is induced. He further mentioned that with forecasting & scheduling and trading across seams, RE will be an attractive business. He advised Shri Anil of SRPC that he should initiate paperwork on SRPC's proposal to carve out wind for managing it at the Regional / National level.

Shri Anil Thomas of SRPC making a presentation on "SRPC's initiatives in managing wind energy at the regional level"

Shri Anil mentioned that SRPC can electrically carve out the wind energy from Tamil Nadu by putting up RTU in all the wind pooling substations and manage it at the Regional level. It can thus insulate the host State instead of saddling Tamil Nadu with the entire responsibility of managing the vagaries of wind. This may require certain changes in the Regulatory framework, but in the short term certain amount of wind power could be evacuated without violating any existing regulations, he said.

Speakers

Shri Rajesh Kumar, Chief Manager, Smart Grid, PGCIL delivering his presentation on "Evacuation infrastructure and Grid integration issues"

Shri Rajesh discussed renewables evacuation infrastructure and grid integration issues, viz. maintaining real time load generation balance, stability & security of the network, etc. The renewable volatility can be managed through: Flexible Generation, Energy Storage, Demand Response / Demand Side Management, Establishment of Renewable Energy Management Centre which enables forecasting of renewable generation, real time monitoring, etc.

Section of the Audience

Ms. Varsha Joshi IAS, Joint. Secretary, MNRE interacting with the speakers

Ms. Varsha Joshi of MNRE wanted to know as to why the SRPC proposal to carve out wind and manage it in a larger area has not taken off. She mentioned that it could help in absorbing wind generation in full and the utilities would benefit financially if it is sold Inter-State rather than let it go waste. She exhorted the wind energy generators to give information on locations where the transmission infrastructure needs to be strengthened.

Day - 2 (June 22, 2015)

SESSION 4(a): Asset Management of Wind Projects

Session Chairman : Dr. Chakradhar Byreddy, Area Manager - Asia Pacific, DNV

Session Chairman Dr. Chakradhar Byreddy, Area Manager - Asia Pacific, DNV initiating the discussion on "Asset Management of Wind Projects"

Shri ByReddy initiated the discussion with an interesting introduction and subsequently facilitated a very interactive session with the audience after the presentation by the speakers.

Dr. Ing. Simone Massaro, Bax Energy, Germany delivering a talk on "An integrated approach for efficient O&M management of wind assets"

Dr. Massaro mentioned that O&M systems should be integrated during construction phase to ensure proper operations and will result in reduction of operational costs. Implementing a complete data acquisition and analysis from inception will provide data for an integrated Operation & Maintenance approach to guarantee the expected results from a power plant. He advised that the power plant should be built with visibility and control in mind from day one and the investor participate with the manufacturer in the O&M process.

Speaker

Shri Milesh Gogad, Senior Marketing Manager, GE Renewable Energy delivering a talk on "Industrial Internet for Asset & Operations Management"

Shri Milesh mentioned that O&M is not an expensive affair from GE's perspective. He explained how the Industrial Internet or technology could be used for O&M of wind mills. Even a 1% increase in efficiency will result in large savings. He explained how GE is engaged in bringing about improved Assets and operations through Digital Wind Farms. Build Operate and Enhance through a combination of seamless integration of hardware and software applications. He explained the benefits of PowerUp App.

Speaker

Shri P Rajenthiran - AVP Services, Gamesa delivering a talk on "O&M issues from a Wind Turbine Manufacturer's perspectives"

Shri Rajenthiran explained how O & M engaged in maintaining wind turbines has evolved from a routine replacement of components when it fails to scheduled services to higher turbine availability to resource availability and the future would have unmanned turbines. The future will be unmanned turbines and current big data analytics will evolve into seeking support from artificial intelligence with turbines capable of Self Performing and Correction. Technology will be the differentiator, O&M costs may be high but the returns will be equally higher.

Day - 2 (June 22, 2015)

PARALLEL SESSIONS

SESSION 4(b) : Wind Solar Hybrid System

Session Chairman : Shri Shuvendu Bose, Director, Ernst & Young

Session Chairman Shri Shuvendu Bose, Director, Ernst & Young initiating the discussion on"Wind Solar Hybrid System"

Shri Shuvendu Bose explained briefly the current wind solar hybrid scenario and the infrastructure required to have a hybrid system. He set the tone for the discussions.

Shri U B Reddy, MD, Enerfra delivering a talk on "Rationalising tariff related issues to ensure success of Wind Solar Hybrid systems"

Shri Reddy explained that wind solar hybrid systems will help in optimum land utilization, share evacuation infrastructure, improve power generation profile and could bring about grid stability by minimizing intermittence problems. However, he mentioned that one cannot make a simplistic assumption that space between wind mills could be used for setting up solar panels, because if the solar panels are set up adjacent to roads then the chances of dust accumulating on the panels is high which in turn would lower the efficiency.

Speaker

Shri M P Ramakumar, Sr. VP, R&D, ReGen Powertech delivering a talk on "Wind Solar hybrid – latest trends and future scope"

Shri Ramakumar gave examples of a couple wind solar hybrid systems set up in the USA. He went on to explain the synergistic benefits of the hybrid of wind and solar when they work in tandem produce a single electricity output which is more efficiently than either could do on its own. He explained in detail the savings of the wind solar hybrid wind farm set up by his company ReGen PowerTech.

Speaker

Shri J P Singh, Director, MNRE (Retd.) delivering a talk on "Application of Wind Solar Hybrid Systems in Telecom Towers"

Shri Singh made an interesting presentation of wind solar hybrid system to be installed on telecom towers, defence applications and in North Eastern Regions. He mentioned that there are 440,000 telecom towers in India, and they use diesel of around 10,000 Crores. He emphasized that the potential of small wind is waiting to be tapped. Presently, not even 1% of the small wind potential has been installed on India. He mentioned the diesel saved in pilot projects installed in rural Rajasthan.

Speaker

Shri Praveen Kakulte, MD, Powercon delivering a talk on "Integrated Wind Power Solar Plant"

Shri Praveen explained in detail the energy generation of wind and solar on a typical day during different months and showed that the peak of wind is after sunset and the trough of wind is during midday and explained that both complement one another. He further explained that the predictability and forecasting of power output at least during the day due to solar usage provides reliable base load thus simplifying the load despatch operations.

Speaker

Dr. J J Isaac, Former Addl. Director of National Aerospace Lab sharing his views on "Wind Solar Hybrid System"

He mentioned that when we are talking about roof top solar we are not mentioning of small roof top wind, we should tap the potential of rooftop wind. He gave examples that such applications. He said that small wind in India is underperforming and this is because of wrong selection of wind turbine and wrong selection of the wind site. Before setting up small wind on roof top the topography and the flow of wind should be considered even wind deflectors could be set.

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Day - 3 (June 23, 2015)

MAIN SESSIONS

SESSION 5 : Wind Forecasting & Scheduling

Session Chairman : Dr. R Venkatesh, President, EPCOS India, Nashik

Session Chairman Dr. R Venkatesh, President, EPCOS India, Nashik initiating the discussion on "Wind Forecasting & Scheduling" with a tinge of humour

Forecasting is not just accuracy of wind speed and velocity but how much does it translate in economic terms i.e. maximizing economic revenue or minimising economic loss. Forecasting should be integrated with the load and not just confine to as a power source. Forecasting should not just stop with measuring wind but should be integrated with storage which will result in control of wind energy generated.

Speaker

Mr. Miguel Ferreira, CEO, Megajoule, Portugal, making his presentation on "State of the art methodologies for wind resource assessment"

Shri Miguel of Portugal explained that Power density varies with the cube of wind speed and slight differences in annual wind speed, not manually noticeable, may result in significant differences in annual energy yield. The effects of seasonality and annual variability leads to important errors in annual energy production estimation. Also important is the spatial variability of the wind characteristics since in complex terrain, like mountainous regions, wind characteristics can vary significantly even in a few hundred meters.

Speaker

Shri Naveen Chakradhar, Senior Technical Specialist, MSC Software making his presentation on "Optimal Design of Wind Machinery incorporating Virtual Simulation"

Shri Naveen explained the virtual reality and the value of simulation which helps transcend the physical limitations of size, durability and costs. Simulation helps accelerate time to market, allows prediction of durability issues.

Speaker

Ms. Bindoo Srivastava, Smartelectrons made a presentation on "REMC"

Ms. Bindoo Srivastava explained how REMC helps in Grid Management which is basically the balancing of Demand and Generation and stabilizing voltage and frequency within a certain range. Since renewables cannot be despatched like conventional sources, at the System Operators level we need to have a dedicated REMC, which is operating a Grid from the RE perspective. She explained that REMCs will help in absorbing both Conventional and RE in an optimal manner.

Speaker

Shri S B Thampi, Deputy Director General of Meteorology & Head, RMD, Chennai made a presentation on "Doppler Radars for Remote Sensing of Wind Fields"

Shri Thampi explained that weather prediction which has been an art is now moving towards becoming a measureable Science. High resolution radar data assimilation has proven to improve NWP model outputs substantially. Improved weather prediction and precise spatial analysis of small–scale weather events are crucial in energy management. He mentioned that IMD is determined to apply its expertise to support the renewable energy sector and to ensure that advancements are quickly adopted and delivered to industry for adaptation.

Speaker

Shri Vishal Pandya, Director REConnect Energy made a presentation on "Wind Power Forecasting & Scheduling in Indian Context"

Shri Pandya shared his experience in Real-time energy monitoring and Wind Power Forecasting. He mentioned that the existing weather data was not quite reliable and how they have analysed in detail with specific focus to hourly data and brought about improvements in Forecasting techniques. He showed that the deviations were quite minimal from forecast. He said that Forecasting Models developed by his team is built in India and built for India.

Speaker

Shri Amresh Khosla, Director, Manikaran made a presentation on "Wind Forecasting & Scheduling - Challenges in Accurate Forecasting"

Shri Amresh shared his experience on forecasting accuracy. He mentioned that the hourly data in India is recorded manually and there is lack of real time data via SCADA or ABT. The accuracy varies largely during high & low wind season. The major differences are: at lower wind speed, mere a variation of 1 m/s in wind speed causes a deviation of 100% in power; at higher wind speed (above 7 m/s), the deviation in power is very less with same error of 1m/s.

Speaker

Mr. Bihag Mehta, OST Energy, UK made a presentation on "Forecasting and Scheduling in the UK"

Shri Bihag mentioned that large quantity of data does not translate into more accuracy. He mentioned about removing uncertainties by using technology. Uncertainties regarding Measurement, Annual Variability, Wind Flow Modelling, etc. He explained that reducing uncertainties results in lower uncertainties which means higher P75 and higher P90; P75 and P90 are used by banks to assess project financial viability; Higher is the P90, higher will be the debt equity ratio (Financial leverage); Higher financial leverage means bigger projects and higher ROI.

Q & A and Closing Remarks

Shri V K Agrawal, ED, NLDC seeking certain clarification from the speakers

Shri Agrawal wanted to know the level of accuracy of forecasting. Shri Vishal explained that depending upon the availability of a particular set of data the corresponding models could be customized. This Session generated the maximum number of responses.

Day - 3 (June 22, 2015)

SESSION 6(a): Transmission infrastructure augmentation

Session Chairman : Shri V K Agrawal, ED, NLDC

Session Chairman Shri V K Agrawal, ED, NLDC explaining the steps taken by the Government in "Transmission infrastructure augmentation"

Transmission is very vital in the evacuation. The transmission project takes more than 3 years. With right of way it is takes longer. The Generation project takes a year or two. In Tamil Nadu the Transmission infrastructure was put up to take care of the generation of the Nuclear station at Koodankulam. Because of this the wind investors also benefitted. Therefore all investors in wind energy should ensure that the Transmission infrastructure should be developed alongside.

Shri Balaji explaining the importance of LVRT for grid safety and other grid related issues

Shri Balaji of SRLDC cited a few incidents when the Grid was affected due to the variations in wind and that fitting of LVRT will go a long way in reducing the impact of sudden loss of wind generation.

Speaker

Shri C R Srinivas, Director & CTO, Enerfra made a presentation on "Infrastructural upgradations needed to increase integration of RE in the grid"

Shri Srinivas made a presentation on the Infrastructural upgradations needed to increase integration of RE in the Grid. He mentioned that we spend only half of the amount of investment in generation in creating Transmission infrastructure, whereas the desired ratio is 1:1. He mentioned that generation through RE would continue to increase but there would be insufficient Transmission capacity, to address this problem he suggested that Government should involve RE Industry representatives in Grid Planning exercise

Q & A Session

Shri V K Krishnan, ED, Leitner Shriram Mfg. Ltd. making a point regarding the compulsory installation of LVRT

Shri Krishnan explained that the stall regulated machines fixing LVRT is technically not possible.

Day - 3 (June 22, 2015)

SESSION 7(b) : Energy Storage

Session Chairman : Dr. Satyajit Phadke

Session Chairman Dr. Satyajit Phadke initiating the discussion on "Energy Storage"

Dr. Satyajit mentioned that Energy Storage helps in evacuating the RE. He mentioned that clear policy direction is required to encourage adoption of these Energy Storage technologies and investments in R&D and mass manufacturing to bring down costs.

Shri A D Thirumoorthy, Chief Technical Advisor, IWPA, making a suggestion to the panel

Shri A D Thirumooorthy making a suggestion to the speakers.

Day - 3 (June 22, 2015)

SESSION 7(b) : Energy Storage

Speaker

Dr. Satyajit Phadke made a presentation on "Global storage concepts"

Dr. Satyajit discussed the key trends in Global Energy storage especially the development of hybrid system of batteries and capacitors. He mentioned that the range of energy storage technologies are reaching commercialization stage that can help address the variability of RE. Globally numerous projects have been demonstrated to prove technical suitability of storage for wind. Incentives for demonstration or early adopters could help drive the cost down and spread awareness about suitability of these technologies, he said.

Speaker

Dr. Akshay Ahuja, India Smart Grid Forum made a presentation on "Benefits of Energy Storage in Smart Grid"

Dr. Akshay discussed the benefits of Energy Storage in the field of Smart Grid. 70 million homes are yet to be electrified and Energy per capita consumption is only one-third of the world average. We are no longer just a consumer we can also be a generator with roof top solar and net metering. We are moving from a Traditional Grid to a Smart Grid. Batteries could act as a bridge. There are portable storage solutions in the global market.

Speaker

Shri T S Seshadri, Consultant explaining the concept of "Compressed Air as a alternative of energy storage"

Shri Seshadri explained the use of Compressed air as a means of Energy Storage. The existing all power generation plants can be modified/ converted to run on compressed air produced through Solar photovoltaic panels and compressors. Scarce non-renewable sources are saved and environment is totally protected. Compressed air can be used to run Road, Sea and Air transport vehicles

Q & A Session

Panelists interacting with the audience

Day - 3 (June 23, 2015)

MAIN SESSIONS

SESSION 7(a) : CEOs CONCLAVE - WE20 by 2020, the way forward

Session Chairman : Shri Chintan Shah, President & Head, SBD, Suzlon

Session Chairman Shri Chintan Shah, President & Head, SBD, Suzlon sharing his views on "WE20 by 2020, the way forward"

Shri Chintan Shah mentioned that the industry is facing several issues. Competitive Bidding has become a fashion statement. But Feed in Tariff has provided long-term stability. Payment issues is one more burning issue. RPO enforcement is not there. Textiles in Tami, Nadu is a success due captive generation from wind. He mentioned that horticulture requires cold chain and Wind mills can provide the power. Only by exploring all such avenues we will be able to achieve the 60 GW target.

Shri V K Krishnan, ED, Leitner Shriram Mfg. Ltd. sharing his views with the audience on the topic

In 2011-12 we installed 3,200 MW but in the following years it was less than 2,000MW. Removing Accelerated Depreciation affected installations of wind mills. The industry needs incentives to grow. About 40% is not being evacuated during peak wind season. Hopefully the Forecasting project undertaken by IWPA and NIWE will probably address this evacuation issue he said. Long-term polices are required for attracting investments. In Rajasthan where wind density is low had more installations last year than in Tamil Nadu.

Speaker

Shri Madhusudan Khemkha, MD, ReGen made several suggestions on how to go about achieving the targets set by the Government

Shri Khemkha mentioned that the wind turbine manufacturing facility is adequate and are ready to meet the 60GW target set by the Government. The one and only thing the industry needs is a clear, sustainable long-term policy to be issued by the Government. He mentioned that the industry is mature enough to handle all other challenges like land, payment issues, etc. Today every large industry have its own power generating units and if RPO is made mandatory then RE will grow.

Speaker

A member of the audience interacting with the captains of the industry

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Day - 3 (June 23, 2015)

CONCLUDING SESSION

The Concluding Session was chaired by Shri V K Agrawal, ED, NLDC

Shri Agrawal who chaired the Concluding Session mentioned that all the topics selected for the Conference are contemporary and he said that the delegates would have benefitted from the deliberations.

Shri A Raja Sukumar, Conference Convenor summarised the proceedings of the Conference

The Conference Convenor Shri Raja Sukumar summed up the Conference Proceedings

Shri Ramesh Babu, the Exhibition Chairman delivering the Vote of thanks

The Conference ended with National Anthem

IWPA Awards - Special Awards

Shri A D Thirumoorthy

Shri Ramesh Babu, Exhibition Chairman

IWPA Awards - Best Performing Wind Farms

PG Traders & Ushdev International

Ramco Cements Ltd.

TATA Power Co.Ltd.

Sahyadri Industries Ltd.

The Hindustan Zinc Ltd

Green Infra Ltd.

Acciona Energy India Pvt. Ltd.

Cape Power P. Ltd

IWPA Awards - Best Performing Wind Farms

Bannari Amman Flour Mill Ltd

Dalmia Wind Farm

Serum Institute of India Ltd

ReNew Power Ventures Pvt. Ltd.

Wind World India Ltd (MOIL Nagada)

MSPL Ltd.

Awards for Best Performance - Manufacturers

Awardees

Suzlon Energy Ltd

Wind World India Ltd

Gamesa Wind Turbines Pvt. Ltd.

Regen Powertech Pvt. Ltd.

Congratulations

Mr. Ravi Kailas, Chairman & Managing Director, Mytrah Energy (India) Ltd. receiving Award for Wind Power Person for the year 2014-15 from Renewable World Awards

Stalls at the Exhibition


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INDIAN WIND POWER ASSOCIATION (IWPA)


THE HINDU

Gist of Proceedings of the Nineteenth Annual General Meeting held at Coimbatore on June 21, 2015

The Nineteenth Annual General Meeting of IWPA was held at Codissia Trade Fair Complex, Coimbatore on June 21, 2015 was attended by 38 Members. Prof. Dr. K Kasthurirangaian welcomed the gathering.

Shri S Gnanasekharan, Secretary General, presented the Annual Report for the year 2014-2015. The Audited Statement of Accounts for the year ended March 31, 2015 was presented by the Honorary Treasurer, IWPA, Shri A Raja Sukumar.

The Returning Officer Shri R Palaniappan announced the names of the elected candidates as given below:

Sl. No.	Name of the person	Company	For the Post of
1	Prof. Dr. K Kasthurirangaian	RSM Autokast Ltd, Coimbatore	Chairman
2	Shri Rajiv B Samant	Tata Power Company Ltd, Bombay	Vice Chairman
3	Shri T Balachandran	Arvind Green Infra P Ltd, Karur, Tamil Nadu	N.C.Member
4	Shri S.Babu	RS Yarns & Power P. Ltd, Tirupur	N.C.Member
5	Shri Chandra Shekhar Khunteta	INDOCOT, Jaipur	N.C.Member
6	Shri M K Deb	Consolidated Energy Consultants Ltd, Bhopal	N.C.Member
7	Shri Devansh Jain	Inox Wind Ltd, New Delhi	N.C.Member
8	Shri T.S.Jayachandran	Premier Mills P. Ltd, Coimbatore	N.C.Member
9	Dr.N Karuna Moorthy	AWT Energy P Ltd, Bombay	N.C.Member
10	Shri Manish Kothari	IBMR Business School & ISBR Business, Bangalore	N.C.Member
11	Shri S.S.Murali	Mytrah Energy (I) Ltd, Hyderabad	N.C.Member
12	Shri K Ravi Kumar Reddy	Axis Energy Ventures P Ltd, Hyderabad	N.C.Member
13	Shri Rajinder Singh Ahuja	Hindustan Zinc Ltd, Udaipur	N.C.Member
14	Shri Ramesh Kymal	Gamesa Wind Turbines P Ltd, Chennai	N.C.Member
15	Shri K V S Subrahmanyam	MSPL Ltd, Bangalore	N.C.Member
16	Shri Sunil Jain	Hero Future Energies Pvt Ltd, New Delhi	N.C.Member
17	Shri T.V.Thalavai	Aarudhra Wind Energy (P) Ltd, Coimbatore	N.C.Member

All the above elected members will have a term of office for 3 years.


Full complement of current Office Bearers and National Council Members

Sl. No.	Name of the Office Bearer/NC Member	Position	Balance Tenure	Period
1	Prof. Dr. K Kasthurirangaian	Chairman	3 Yrs.	2015-18
2	Shri S V Arumugam	Vice Chairman	2 Yrs.	2015-17
3	Shri Rajiv B Samant	Vice Chairman	3 Yrs.	2015-18
4	Shri Chetan Mehra	Honorary Secretary	2 Yrs.	2015-17
5	Shri A Raja Sukumar	Honorary Treasurer	1 Yr.	2015-16
6	Shri T Balachandran	N.C. Member	3 Yrs.	2015-18
7	Shri S.Babu	N.C. Member	3 Yrs.	2015-18
8	Shri Balram Mehta	N.C. Member	2 Yrs.	2015-17
9	Dr. V Bapeshwar Rao	N.C. Member	2 Yrs.	2015-17
10	Shri Chandra Shekhar Khunteta	N.C. Member	3 Yrs.	2015-18
11	Shri M K Deb	N.C. Member	3 Yrs.	2015-18
12	Shri Devansh Jain	N.C. Member	3 Yrs.	2015-18
13	Shri V Dev Anand	N.C. Member	2 Yrs.	2015-17
14	Shri T S Jayachandran	N.C. Member	3 Yrs.	2015-18
15	Dr. N Karuna Moorthy	N.C. Member	3 Yrs.	2015-18
16	Shri R Kannan	N.C. Member	2 Yrs.	2015-17
17	Shri V K Krishnan	N.C. Member	2 Yrs.	2015-17
18	Shri Manish Kothari	N.C. Member	3 Yrs.	2015-18
19	Shri S S Murali	N.C. Member	3 Yrs.	2015-18
20	Shri K R Nair	N.C. Member	2 Yrs.	2015-17
21	Shri Ramesh Kymal	N.C. Member	3 Yrs.	2015-18
22	Shri Rajinder Singh Ahuja	N.C. Member	3 Yrs.	2015-18
23	Shri Rajeev Karthikeyan	N.C. Member	2 Yrs.	2015-17
24	Shri K Ravi Kumar Reddy	N.C. Member	3 Yrs.	2015-18
25	Shri U B Reddy	N.C. Member	2 Yrs.	2015-17
26	Shri K V S Subrahmanyam	N.C. Member	3 Yrs.	2015-18
27	Shri Sunil Jain	N.C. Member	3 Yrs.	2015-18
28	Shri T V Thalavai	N.C. Member	3 Yrs.	2015-18
29	Dr. R Venkatesh	N.C. Member	2 Yrs.	2015-17


Appointment of Auditor for the Financial Year 2015-16

Shri R Palaniappan FCA, Chartered Accountant, N A Jayaraman & Co., Chennai was re-appointed.

RESOLUTIONS: The following resolutions were passed at the AGM

Ministry of Power

1. 'Must Run' status to be followed in letter and spirit for Wind Energy. Limit of 150 MW variation for Renewable Energy to be changed to ± 10% of maximum injection of Renewable Energy into grid.
2. Speedy installation of infrastructure and REMC to evacuate and integrate Wind Energy.
3. Hydel Projects for Energy Storage as spinning reserve for Wind Energy like pumped storage to be expedited.
4. Central Thermal and Nuclear units to be taken up for Annual Maintenance between June and September. Balance Thermal units to run at technical minimum to accommodate entire wind energy.

Ministry of New and Renewable Energy

1. Repowering Policy with suitable incentives to be announced.
2. Renewable Energy Generation Obligation by Conventional Power Plants to be made mandatory.
3. Wind Energy to be exempted from payment of Inter-State transmission charges and losses as granted to Solar.
4. National Wind Mission to be in place early.
5. Renewable Energy Act to be passed early.
6. Amendment to Electricity Act to make RPO mandatory.
7. Must Run Status to be included in the Electricity Act.

Finance Ministry

1. Priority Sector status to be accorded for financing Wind Power Projects.
2. The sanctions and disbursements under National Clean Energy Fund through IREDA under GBI for Wind Projects to be increased

State Governments

1. Single Window Clearance to be adopted for land acquisition and clearance of Wind Energy Projects.
2. Consumption Tax for Wind Energy to be waived, and Wind Energy to be free from any Tax
3. "Must-Run " status to be followed in letter and spirit by Utilities and Discoms in all States.
4. People can't claim ownership of land under electrical lines. Once energized ownership of utility on the land through which the electrical lines pass to be made legal.

State Electricity Boards

1. Wind Energy to be evacuated fully. Utility/Discom to pay for deemed generation for grid drop. Forecasting to be on "State Level" instead of individual Wind Farms.
2. Timely payment to be ensured for the Wind Energy supplied to the Grid.

Income Tax Department

1. Resolved to set apart a sum not exceeding Rs.2,00,00,000/- (Rupees Two Crores only) out of the income of the Trust (excluding voluntary contributions to the Corpus Fund received) from the year ending 31.03.2015 (corresponding to assessment year 2015-16 and subsequent four years (i.e.) upto 31.03.2019) in order to enable the National Council Members to accumulate sufficient funds for the purpose of acquiring (or) Constructing office building.

M/s Varsha Joshi Joint Secretary MNRE was the Chief Guest. There was a lively discussion on various matters. She informed that difficulties of evacuation are likely till such a time the forecasting and scheduling process stabilizes.

She suggested that if both the investors and the utility agree for an amicable mutual back-down, then at least 2,500 MW could be evacuated in Tamil Nadu without difficulty. She exhorted both the Utility and the Investors to be willing to sacrifice for mutual benefit. The ideal condition is that the investors and the utility work together

Shri S V Arumugam, Vice Chairman delivered the Vote of thanks. Shri S V Arumugam in his vote of thanks said that Wind Energy should get the 'Must Run' status legally with built in 'Deemed Generation' charges for unabsorbed units and requested the Joint Secretary's help in this regard.

Policy on New and Renewable Energy Sources - Maharashtra

Compiled by Shri S Parvathinathan, IWPA, Maharashtra State Council

2. Power Generation from Wind Energy Projects

Taking into consideration the use of wind power, the scope for erecting / commission the project and the study of wind pattern in the state of Maharashtra a target for commissioning of 5000 MW wind power project is being decided.

2.1 Under this policy considering the favourable scope at the wind power site and after undertaking proper micrositing and use of modern technology permission for using higher capacity wind power generators would be given to project developers.

2.1.2 These projects could be commissioned / erected as per the guidelines framed by the Central Governments Ministry of New and Renewable Energy in this respect. Under this policy such projects could be considered for registration / nomination.

2.2 Under this policy the land being acquired for wind power projects would be given deemed non-agricultural land status.

2.3 Under this policy for the wind power projects there will be concession / non requirement for obtaining permission of Pollution control board / NOC.

2.4 The said policy would be made effective immediately from the financial year 2015-16. However for the state licensed distribution companies for completing their daily renewable purchase obligations (R.P.O) under the proposed 1500 MW wind power projects for the 1350 MW projects already commissioned till date the notified purchase guidelines issued by MERC would be applicable. However it would be binding on them to register with MEDA.

2.5 As per this policy for the 3500 MW Wind power projects if the developers wishes to use the power generated for self use outside the state / group self use (Captive use) or for selling to third party outside the state or for developing for Renewable energy certificate, Such projects would be given open entry / access to outside states as per the concerned state regulatory commission guidelines applicable to them

2.6 As per wind energy policy dt.14 October 2008 for the 2000 MW projects commissioned under the said policy all the terms formulated under this policy would be applicable. It would be binding for all projects to be registered with MEDA under this policy.

2.7 For the wind energy projects commissioned under this policy the guidelines and orders of Maharashtra Electricity Regulatory Commission would be applicable in respect of development and expenditure on transmission system. For developing the said transmission system the supervision charges would not be applicable.

2.8 The wind power projects being established under this policy would have the liberty to have themselves registered as a industry with the Industry Department if they wish to do so.

2.9. The wind power generated from the wind power projects established under this policy would be registered with MEDA.

2.10 For the wind power projects established under this policy the terms and conditions regarding road repairs mentioned under Government Resolution APAU-2013/P.No.121/Urja-7 dt 21.08.2013 would be applicable.

IWPA pays Homage to a Great Visionary

15.10.1931 — 27.07.2015

Dr. A P J Abdul Kalam

Your inspiration will continue to guide us...

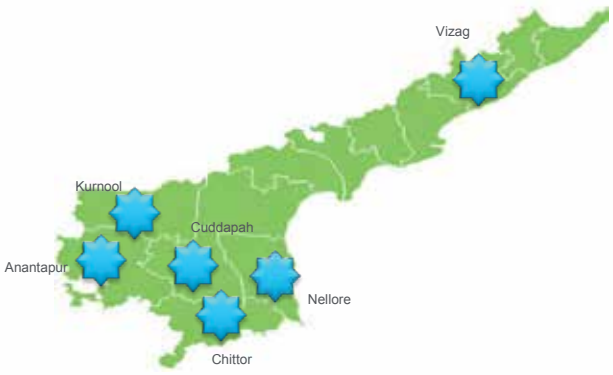
IWPA Comments / Suggestions on APERC Draft Wind Tariff Regulation 2015

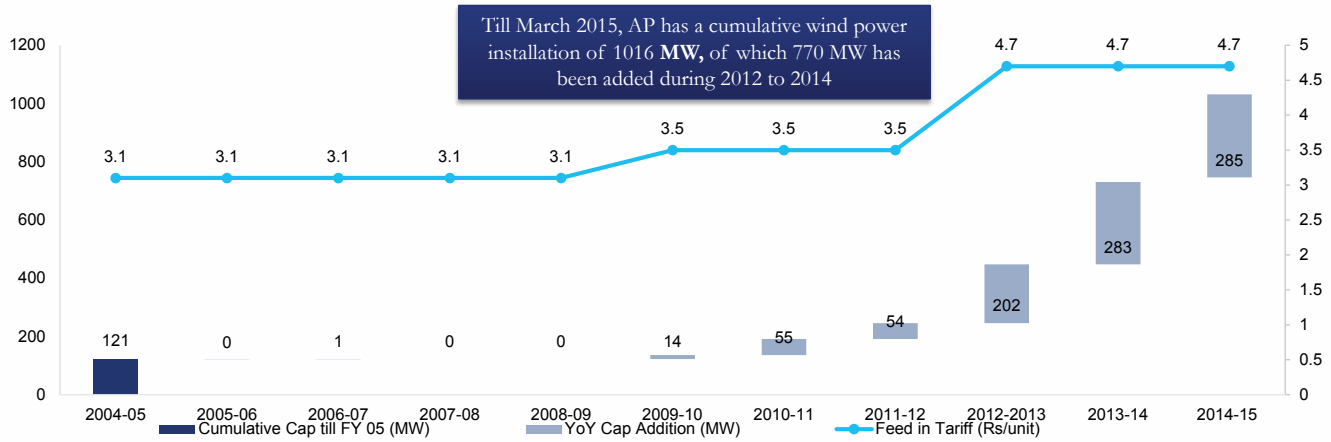
Presentation made by Shri S S Murali (Secretary IWPA - AP Chapter)

- IWPA is a representative body of Investors in Wind Turbine Generators having its head quarters at Chennai and started in 1996 as a non-profit organization.
- The Association is having more than 1300 members spread all over India.
- Association members own more than 6000 MW of Wind Energy Generators. It has its State Councils in A.P., Karnataka, Rajasthan, Maharashtra, Gujarat and a regional council in New Delhi.
- Since its inception it has worked consistently, towards removing barriers to wind power development and creation of an enabling regulatory and policy environment for investments in this sector.
- The Association is working closely with several national industry bodies such as the IREDA, MNRE, Ministry of Power, Ministry of Environment, CWET, CERC, CEA, State utilities, State Electricity Regulatory Commissions, State Nodal Agencies, etc.
- The Association also publishes a prestigious technical Monthly Magazine "WINDPRO" which collates all the information on current issues not only in India but in the entire world in relation to wind energy.
- The Association also organizes Seminar, Training Programs, Wind Conference & Exhibitions. Indian Wind Power Association (IWPA) is also member of World Wind Energy Association.

Wind Power Capacity Addition Trend in A.P.

- The wind power potential of Andhra Pradesh at 80 m hub height is 14,497 MW however the wind installed capacity as on March 31, 2015 stands at only 1016 MW.
- The State Govt. through its Wind Power Policy 2015 has set ambitious target of installation of 4000 MW in the next 5 years.
- Major capacity addition took place in last couple of years because of the higher feed in tariff offered by APERC at Rs.4.70/unit through an order dated Nov 15, 2012.





Comments on Draft Wind Tariff Regulations

Parameter	Proposed in APERC Draft	IWPA Comments
Capital Cost (CC)	For determining CCfor base year FY 2015-16, Commission will consider CC determined in wind tariff order dated 15-11-2012 and will apply CERC capital cost indexation mechanism in it.	IWPA is in concurrence with the Commission, CC in last wind tariff order was Rs. 575 lakhs/MW applying CERC indexation mechanism in the same the CC for FY 2015-16 comes to be Rs. 619.52 lakhs/MW. (details in Annex I (pg. 7))
Debt:Equity	70:30	In concurrence with the Commission
Interest on Term Loan	SBI base rate prevailing during the first six months of last FY + 300 basis points	In concurrence with Commission, the SBI base rate in FY 15 was 10% adding 300 basis points over it, the interest on term loan for FY 16 comes to be 13%
Interest on Working Capital	SBI base rate prevailing during the first six months of last FY + 350 basispoints	In concurrence with Commission, the SBI base rate in FY 15 was 10% adding 350 basis points over it, the interest on working capital for FY 16 comes to be 13.5%
Loan Tenure	10 years	In concurrence with the Commission
Depreciation	➢ Depreciation on 90% of capital cost ➢ Depreciation rate • 4.5% for first 10 years • 3% for next 15 years	➢ Depreciation should be equal to yearly principal repayment as CERC and APERC draft. ➢ As per draft proposed only 45% of the principal will repaid during the loan tenure. ➢ Hence the depreciation rate should be: ➢ 7% for first 10 years ➢ 1.33% for remaining 15 years. ➢ CERC and various other SERC also follows the same methodology. (details in Annex II (pg. 8))
Return on Equity (RoE)	Return of Equity at 16% with MAT/ income tax as pass through.	➢ APERC in its previous wind tariff order considered 20% pre-tax for the first 10 years followed by 24% pre-tax for 11th year onwards on the lines of CERC RE Tariff Regulation 2012. ➢ Honorable APTEL has directed various State Commissions that in order to calculate the RoE the Commission should follow the principle of grossing up the income tax and pass the same to the generator. (details in Annex III (pg. 9)) ➢ Hence we request the commission to consider 20% pretax RoE for the first 10 years and 24% pretax RoE from 11th year onwards.
Operation & Maintenance Expense (O&M Expense)	O&M at 1.25% of CapitalCost	➢ CERC in its RE tariff order for FY 2015-16 has considered Rs. 10.62 lakhs/MW towards O&M. ➢ APTEL in its recent judgement directed the State Commissions to consider O&M cost in line CERC RE Tariff Regulation 2012. (details in Annex IV (pg. 10) ➢ Hence we request Commission to consider Rs. 11.62 lakhs/MW (inclusive Rs. 1 lakh/MW for scheduling and forecasting)towards O&M.

Parameter	Proposed in APERC Draft	IWPA Comments
Rebate	Early payment rebate of 1% of billed amount	We request not to deduct any rebate for early payment as it effectively reduces the net tariff.
Despatch principles for wind power generation	➢ The Commission in the proposed draft has granted MUST RUN status to wind power projects. ➢ For project size of 10 MW and above shall be subjected to IEGC 2010 and/or AP State Electricity Code as amended from time to time.	➢ Asper AP Wind Power Policy 2015 all the wind power projects shall be treated as MUST RUN. ➢ SLDC is curtailingwind power projects located in Anantapur, Cuddapahand Kurnool. ➢ In a recent AP discomstender for procurement of 2400MW from coal based power under competitive bidding the highest fixed cost component was Rs. 3.80/unit, which means even if they curtail such power the generator will get Rs. 3.80/unit (details in Annex V (pg. 11)) securing the financial health of the project, which is not there in case of wind, hence request the Commission to take an appropriate decision on this. ➢ In relation to scheduling the Commission may consider initial capital cost of Rs. 2 lakhs/MW towards it and Rs. 1 lakh/MW towards O&M charges in relation to scheduling.

Month/Year	Electrical & Machinery		Steel	
	2014	2011	2014	2011
January	137.4	125.1	126.2	118.6
February	137.8	125.1	126.2	113.0
March	138.4	126.4	126.2	113.0
April	138.4	127.2	135.1	113.0
May	138.6	127.6	129.6	113.0
June	138.6	128.0	130.6	119.6
July	138.8	128.7	130.5	126.2
August	138.4	129.2	130.9	126.2
September	138.6	130.9	130.9	126.2
October	138.7	130.6	130.9	126.2
November	138.6	130.8	130.9	126.2
December	138.5	131.0	130.9	126.2
Average	138.4	128.38	129.91	120.62

Indexation Formulation

$CC(n) = P\&M(n)*[1+F1+F2+F3]$

$dn = (a*(SIn-1/SI0)-1)+b*(EIn-1/EI0)-1))/(a+b)$

$P\&M(n) = P\&M(0)*(1+dn)$

Variable	Description	Value
A	Weightage for Steel Index	0.6
B	Weightage for Electrical Machinery Index	0.4
F1	Factor for Land and Civil Work	0.08
F2	Factor for Erection and Commissioning	0.07
F3	Factor for IDC and Financing	0.1

Annexure I : Capital Cost for FY 2015-16

Capital Cost Indexation for Wind Power Projects (FY 2015-16)

Capital Cost for FY 2015-16	
Capital Cost for Base year (CC(0))	575.000 Lakhs/MW
P&M for Base Year (P&M(0))	460.000 Lakhs/MW
Capital Cost Escalation Factor (d(n))	7.743%
P&M for nth Year (P&M(n))	495.618 Lakhs/MW
Capital Cost for nth year (CC(n))	619.522 Lakhs/MW

Source: http://eaindustry.nic.in/

The capital cost calculated on the basis of available data of WPI of Electrical Machinery and Steel till December 2014 comes out to be Rs. 619.52 lakhs/MW.

Annexure II : Depreciation Rates

Regulatory Commission	Loan Tenure	Depreciation Rate (Order dated)
Maharashtra Electricity Regulatory Commission	10 years	First 10 years 7% and 1.33% after year 10 (07.07.2014)
Madhya Pradesh Electricity Regulatory Commission	10 years	First 10 years 7% and balance 20% to be depreciated in next 15 years (26.03.2013)
Tamil Nadu Electricity Regulatory Commission	10 years with a moratorium of 1 year	4.5% per annum for complete 20 years on 85% of capital investment; (31.7.2012)
Gujarat Electricity Regulatory Commission	10 years	First 10 years 6% and 2% for remaining 15 years (8.08.2012)
Rajasthan Electricity Regulatory Commission	12 years	For first 12 years 5.83%, for remaining 13 years 1.51%. (16.07.2014)
Karnataka Electricity Regulatory Commission	12 years	For first 12 years 5.83%, for remaining 13 years 1.20%. (09.10.2013)

Annexure III : APTEL judgements on Return on Equity

- Appeal No. 174 of 2009 dated 14.02.2011 in the matter of Tata Power Company Limited vs Maharashtra Electricity Regulatory Commission.
- Appeal No. 68 of 2009 dated 23.03.2010 in the matter of Torrent Power vs Gujarat Electricity Regulatory Commission (GERC).
- Review petition no. 9 of 2010 in Appeal No. 68 of 2009 dated 05.01.2011.
- Appeal No. 75 of 2012 dated 17.04.2013 in the matter of Solar Energy Society of India vs GERC and GUVNL.

Annexure IV : APTEL judgement on O&M expense

Honorable Appellate Tribunal of Electricity on Appeal No.11,49 and 82 of 2014 dated November 25,2014 in the matter of Appeals filed by Indian Wind Power Association(IWPA), Indian Wind Turbine Manufacturer's Association and Guttaseema Wind Energy Co. Pvt. Ltd challenging the Wind Tariff Order dated Oct10,2013 passed by Karnataka Electricity Regulatory Commission (KERC) have passed a judgement stating:

"Operation and Maintenance Expense

We find that in the impugned order the State Commission has followed the same norm of 1.25% for O&M expenses as decided in the previous tariff order. However, in the impugned order, the State Commission has fixed the capital cost of 5.6 crores/MW. Calculating @ 1.25%, this would give O&M cost of Rs.7 lakhs/MW. The State Commission is guided by the Central Commission's Regulations. However, in the present case, the State Commission has decided O&M cost different form that specified in the Central Commission's Regulations without giving any reason. We, therefore, remand the matter to the State Commission to reconsider and if it is adopting value different from the Central Commission's Regulations, it should give proper reason for the same. Accordingly ordered."

Annexure V: Winning bids in AP PPA for 2400 MW

Sr. No.	Developer	Plant Location	Capacity (MW)	Fixed Charge (Rs/unit)	Fuel Charge (Rs/unit)	Total Tariff (Rs/unit)
1	EastCoast	A.P.	489	2.86	1.41	4.27
2	NCC	A.P.	500	2.56	1.79	4.35
3	AdaniPower	C.G.	540	3.50	0.99	4.49
4	MBPower	M.P.	374	3.63	1.06	4.69
5	Jindal India	Odisha	400	3.79	1.04	4.83
6	Essar	M.P.	500	3.80	1.03	4.83

Jami Hossain

Technical Chair,
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Chief Mentor & Co-founder
Windforce Management Services Pvt. Ltd.
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26/06/2015

Shri Piyush Goyal, Hon'ble Minister for Power
Coal, New & Renewable Energy, Government of India

Dear Shri Piyush Goyal ji,

100% RE India by 2100 – OPEN LETTER

I am writing this letter in connection with a worldwide movement on 100% Renewable Energy (RE).

I have been associated with renewable energy sector from a time (1985) when practically no solar or wind generation capacity existed in the country. I have seen wind technology grow and evolve from nothing to nearly 24 GW, a robust competitive industry and around 10 GW of manufacturing base. Solar Capacity is also on a steeply upward trend. Though one is always looking to future for more capacities but even today I am very happy to see a sort of 'transition in the making' and no doubt RE has taken out a significant chunk from a mainly hydrocarbon (coal, oil) based generation system.

In recent times, MNRE under your leadership and intense involvement of Shri Upendra Tripathy (Secretary MNRE), Shri Tarun Kapur and Ms. Varsha Joshi (Joint Secretary) has done very well in setting a challenging target of 160 GW. There are challenges but MNRE is taking steps in a logical manner. For example, the potential for windfarms is being assessed, work is going on green corridors etc.

There are many prerequisites for a capacity as large as 160 GW to come up. Resource assessment, identification of hot spots, green corridor, Renewable Energy Management Centres are being taken up and in due course this should lead to emergence of a much more enabling infrastructure and environment. No doubt 160 GW capacity target will need accelerated development in the sector. This target, if achieved will create an annual generation capacity of about 280 to 320 billion kWh, depending on the PLF. This would be around 25% of all electricity generated in the country.

You may be aware that many countries have set themselves in a direction or have plans to meet 100% of electricity from Renewable Energy. The G7 ministers concluded their recent meeting in Bonn pledging to make the world fossil fuel free by 2100. Studies conducted at Stanford University indicate that US may achieve the 100% transition by 2050. Germany has already pledged to reach 100% RE target by 2040. India is well positioned to look in the direction of 100% RE. In spite of energy shortages and increasing energy demand, the fact remains that India has vast wind and solar energy resources and potential, which can be harnessed. Moreover, many small, medium and large investors can participate in such a transition thus bringing about a major economic benefit, development and employment to vast regions of the country. Apart from the Climate Change and Energy Security issues being addressed, we have this added benefit of great economic activity unleashed.

No one needs 100% RE transition more than us!

Challenges such as absorbing variable power from wind and solar, spinning reserves, storage systems etc. are technicalities that can be addressed. I am sure if we can send Mangalyaan and Chandrayaan in orbit, we can surely address these small technicalities.

Given that we have the resource, technologies (rapidly advancing), policies, bankability and framework – more or less in place, why don't we also make a commitment that India too will progressively move towards 100% RE and will do whatever needs to be done to achieve that by 2100. Among nations, India has occupied Renewable Energy leadership position and such an announcement from GoI will catapult the country to the forefront of this energy transition movement. Such a top level policy and strategic announcement will also create positivity in the entire energy sector and many challenges and issues on the ground will also get resolved.

I thank you and look forward to a 100% RE India by 2100.

Jami Hossain

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Renewable Energy News Digest

Renewable energy up to 175 GW by 2022

July 16, 2015

Chennai: After scaling up renewable energy (RE) target to 175 Gigawatts (GW) by 2022, ministry of new and renewable energy has released the draft National Renewable Energy Act (NREA), 2015, for public comments to encourage renewable energy generation in the country. The draft bill promises to fulfil a long pending demand of the RE sector, particularly wind power generators, for deemed generation status. Industry sources said if that status was bestowed on the renewable energy sector, it would help attract investments.

On deemed generation, the draft bill, said if the grid was not available for power evacuation after the project had commenced generation or was already operational, the power would be considered to be generated and sold. The energy charges would be paid to the RE generator. "Detailed guidelines in this respect shall be issued as part of (National) RE policy," it said. "We welcome the draft bill providing deemed generation status to the renewable energy sector on a par with the conventional power sector," Indian Wind Power Association president Prof K Kasturirangaiyan. Till date, the thermal stations were enjoying the deemed status and they were paid capacity charges even if they were asked to back down, he said.

"Without the deemed generation status, wind mills were often asked to back down. It results in huge financial loss. As per the draft provision, wind mills will be paid if it was backed down by the grid managers," he said. The MNRE has set an ambitious target of adding 1,75, 000 MW of renewable energy, including 60,000 MW of wind power, by 2022, he said. "The ambitious capacity addition for wind mills will be achieved only if the investors are sure of returns. Last two to three years, there was a meagre addition of wind mills in TN due to issue over non evacuation of power.

If the deemed generation status was given, investors will have confidence and they will install more wind mills," he said.The Centre for Science and Environment (CSE) has welcomed the draft National Renewable Energy Act and has made a few suggestions which it will share with the Ministry of New and Renewable Energy (MNRE). "The draft Act emphasises that RE should be mainstreamed by offering financial incentives and infrastructural support to manufacturers and developers so as to bring RE on the same level playing field as fossil fuels," said CSE's Deputy Director General Chandra Bhushan in a release.

Source: Deccan Chronicle

Denmark's Wind Energy Output Just Exceeded National Demand

When it comes to renewable energy, Denmark is officially kicking ass. Yesterday, Denmark's wind farms produced 116% of national electricity demands, allowing the country to export power to Norway, German, and Sweden. According to The Guardian, that figure had risen to 140% by early Friday morning.

"It shows that a world powered 100% by renewable energy is no fantasy," the European Wind Energy Association's Oliver Joy told The Guardian. "Wind energy and renewables can be a solution to decarbonization-and also security of supply at times of high demand."

Denmark has long been a global leader in renewable energy. With almost unanimous political consensus, the 5.6 million-strong Danish population has in recent years pushed aggressively for the installation of new wind farms across the country, with the goal of producing half of its electricity via renewable sources by 2020. And in 2014, Denmark announced to the world that it aimed to end burning fossil fuels entirely-not just for electricity, but for transportation-by 2050.

This week's wind energy milestone places what sounded to be a very audacious set of goals within reach for the small Nordic nation. The latest wind energy figures can be found on the Danish transmission systems operator website energinet.dk. The site, The Guardian notes, showed that Danish wind farms weren't even operating at their full 4.8GW capacity at the time of the recent peaks.

https://www.youtube.com/watch?v=fnfVNidk46o

Source: Guardian

Network of cities committing to 100 per cent renewable energy planned

June 29, 2015

The information will be available online, says Stefan Graenger.

The World Wind Energy Association plans to create a network of cities in different countries that are committing to go in for 100 per cent renewable energy, secretary general of the association Stefan Graenger told The Hindu here recently.

The association is collecting details of individual buildings, towns and cities that have already gone in for 100 per cent renewable energy. The information will be available online. The concept of 100 per cent renewable energy is discussed at the global level in several countries now. It can be expedited when success stories and examples at the local and national-levels are highlighted.

Wind energy will have a key role to play in countries aiming to go in for 100 per cent renewable energy in the future, he said.

In India, wind resource and investors are available and the Government is also giving priority to renewable energy. The problem of integration with the grid can be resolved by looking at countries that have done it successfully. India can also come with systems and show to other countries how to address issues such as fluctuation in wind energy generation.

In many countries, the grid operator has a key role to play in integration of wind energy generated with the grid.

The installed global wind energy capacity is to cross 400 GW. Last year, 52 GW wind turbines were sold, making it the highest volume sold in a year, he said. China, the U.S., Germany and India are among the leading countries in installed wind energy capacity.

"There is very strong growth in Asia. In terms of per cent of growth, there are new countries such as Brazil and Uruguay that are seeing rapid development," he said.

Among the new investments made in energy generation, on shore wind energy is the lowest and the average capacity of a wind turbine installed is two MW. Off shore turbines are concentrated in specific markets such as the U.K. "Hybrid renewable energy systems have an important role to play in off grid rural electrification projects," he says. Such systems are common in the African countries.

Source: The Hindu

SoftBank, Bharti and Foxconn to Form Joint Venture for Renewable Energy in India

SBG Cleantech will invest in solar and wind energy projects to promote clean and safe energy

June 22, 2015

Japan headquartered telecommunications and Internet major SoftBank Corp. ("SoftBank"), leading Indian business conglomerate Bharti Enterprises Limited ("Bharti") and Taiwan-based top design and manufacturing services provider Foxconn Technology Group ("Foxconn"), came together with plans to form a joint venture, SBG Cleantech Limited ("SBG Cleantech") to promote the adoption of clean and safe energy in India. Subject to certain conditions, all three companies will jointly invest in the venture.

SBG Cleantech will be a harbinger of solar and wind energy. Following the Indian Prime Minister's 100GW solar and 60GW wind target by 2022, the venture will invest in and develop renewable energy plants across India. SBG Cleantech is committed to contributing to the Government of India's mission of 24x7 power for all and the renewable energy target by 2022. The company intends to participate in the 2015-16 round of solar power plant tenders under the National Solar Mission (NSM) program and state-specific solar programs.

Given its vast population, high irradiation, growing energy demand and power deficit, limited access to fossil fuels and a large number of unlit villages, India has great potential to be a major solar market.

India has achieved a base of 3.7 GW of solar power, evolved its policies and created a solar ecosystem of installers, manufacturers, developers, financiers and researchers. For a country of India's size and promise, this can only be a first step.

Masayoshi Son, Chairman & CEO of SoftBank, said, "Our eyes are trained on India, given the vast potential that the country offers. We have already made considerable investments in the technology sector here. With this partnership, our goal is to create a market-leading clean energy company, to fuel India's growth with clean and renewable sources of energy. We have joined hands with Bharti Enterprises and Foxconn, two leaders in their respective markets for this venture that will propel India into the future."

Added Sunil Bharti Mittal, Chairman, Bharti Enterprises, "At Bharti, we believe in projects that have a transformational impact on society. In line with this vision, we are participating in a renewable energy venture with SoftBank and Foxconn which has the potential to transform the Indian economy. This project will immensely contribute to the Hon'ble Prime Minister's vision of meeting the country's energy demands through clean sources. Just as mobile phones have connected every Indian, renewable power has the potential to provide every Indian with access to electricity, SBG Cleantech underlines our commitment to India's growth plans not only by eliminating energy deficit but also providing clean environment to the future generations of India."

Terry Gou, Founder and CEO, Foxconn Technology Group, said, "As a leading global technology company, Foxconn is committed to fulfilling our social and environmental responsibilities (SER) and investing in areas that link technology with sustainable growth in a way that also protects the environment. Harnessing renewable energy is a key pillar in our SER strategy and we are excited to join our industry partners, SoftBank and Bharti, in championing clean energy solutions in India through SBG Cleantech, and supporting the country's efforts to grow its renewable energy industry."

SBG Cleantech will have Manoj Kohli, a Bharti veteran, who until recently led Bharti's emerging businesses, as executive chairman and Raman Nanda, as the CEO. The company will be headquartered in Delhi.

Solar in India is likely to grow by 250% in 2015. Globally, renewable energy outpaced the growth of fossil fuels in 2015 and a record 107 GW was added through wind, solar, geothermal and other natural sources.

[Note]

* Data source: India Solar Handbook, 2015

SoftBank Corp. through its subsidiaries and associates, offers a comprehensive range of advanced mobile communications, fixed-line communications and Internet services around the world. With Sprint joining in July 2013, the SoftBank Group became a leading global carrier that now has over 100 million subscribers. Maximizing synergies across its Group companies worldwide, SoftBank aspires to realize lifestyle innovation through IT. SoftBank is also encouraging the adoption of clean and safe energy through its business activities. To learn more, please visit http://www.softbank.jp/en/corp/

Bharti Enterprises is one of India's leading business groups with interests in telecom, agri business, financial services, retail and manufacturing. Bharti has been a pioneering force in the telecom sector with many firsts and innovations to its credit. Bharti Airtel, a group company, is a leading global telecommunications company with operations in 20 countries across Asia and Africa.

Established in 1974, Foxconn Technology Group ("Foxconn"), under the leadership of Founder and CEO Terry Gou, offers the most competitive production manufacturing technology in the world. A recognized global industry leader, Foxconn created the 3C OEM service business model, eCMMS, incorporating vertical integration of mechanical, optical and electronic components. Foxconn offers many of the world's leading companies a one-stop integrated manufacturing solution. Foxconn has in recent years expanded into technology services, providing customers the most comprehensive solutions for their technology and manufacturing needs. In addition to maximizing value creation for customers, Foxconn is also dedicated to enhancing the concept of environmental protection in the manufacturing process. In addition to being a trusted partner for its customers, Foxconn is working to be a best-practices model for global enterprises.

Source: SoftBank Corp.

SoftBank keen on investing in renewable energy projects in AP

June 23, 2015

Masayoshi Son, Founder and Chief Executive Officer of Japan's SoftBank Corp, on Tuesday expressed interest in collaborating with Andhra Pradesh for projects in the renewable energy sector.

Masayoshi Son meets CM Chandrababu Naidu

Son, accompanied by Nikesh Arora, President of SoftBank Corp, and Sunil Bharti Mittal, Chairman of Bharti Enterprises, met with the Chief Minister N Chandrababu Naidu.

This was a follow up on a meeting Naidu and Son had in Japan last year.

The Chief Minister told Son about the advantages of a long coast on the East, which makes it a potential logistics hub.

"The East Coast of Andhra Pradesh has an advantage in serving and exporting goods to South Eastern markets like Malaysia, Singapore, China etc," he said.

Stating that SoftBank could also look at cooperation in manufacturing, the Chief Minister asked Son to explore ways of collaborating in hardware (electronics) projects.

On Monday, SoftBank teamed up with Bharti and Taiwanese firm Foxconn for a $20-billion solar venture. In the past, too, Son had expressed interest in projects in the State's renewable energy sector.

Wind power producers rue govt apathy, may not go ahead with new investments

JAIPUR : The Central and state governments' plan to strengthen renewable energy in the state has received a setback with the wind power producers in the state deciding not to go ahead with new investments.

The Indian Wind Power Association, Rajasthan council recently said that investment in the sector had been affected severely.

According to honorary secretary of the council, Chandra Shekhar Khunteta, initially the problem was of poor generation then the investors suffered losses due to cable theft. "Now the state government has curtailed purchase of the power generated from wind mills," Khunteta told reporters.

He said the Power Backdown - curtailment of power purchase of the government - was against the spirit of the 25-year power purchase agreement with the state government according to which the government has to purchase power from renewable energy investors so as to inspire the sector. "The government is purchasing power from alternate sources, like thermal power from the national grid," said Khunteta.

Council vice president Rajendra Vyas said payment worth ₹ 400 crore of the investors were already stuck with the government.

The state has 3,200 MW installed capacity of wind power at the cost of Rs. 18,000 crore. The government has also proposed generated 25,000 MW solar power in the coming years.

Khunteta said they has sought a meeting with the Chief Minister, but met CMD of power distribution companies and even minister of state for energy Phushpendra Singh, who expressed ignorance on the matter.

In a first, forecasting helps TNEB make most of wind power

In a first, the use of wind forecasting techniques has helped to increase wind power evacuation by 20% on a daily basis. Wind power being among the cheapest sources of power - at Rs 3.50 per unit - it would help TNEB financially to use all the wind power being generated. Without forecasting of a fluctuating source of power, however, other power plants will have to be kept running for the sake of continuous supply of power and some power will have to be drawn from them.

A 10-member group from the India Wind Power Association has been supplying five-day forecast of wind power to TNEB for the last 25 days. This has been helping the board to turn down or stop coal and other power plants for whose power it pays nearly Rs 5.50 and take in cheap wind power instead.

While in 2014, TNEB, on an average evacuated around 68 million units every day, this season, the average evacuation per day has gone up to 81million units. Overall evacuation is now slightly more than 93% of wind power being generated.

The 10-member team includes engineers, data experts as well as wind power companies. The industry group has stepped in even as the National Institute of Wind Energy (NIWE) recently entered into an agreement with a Spanish company for real-time forecasting. The NIWE project is yet to go onstream. "Every late night, the team sends us the forecast for the next five days," said a Tangedco official. The accuracy of the forecasting is around 60% and the industry group hopes to improve that in the coming months, said the official.

"The forecast is for 24 hours starting from 12am to 11pm and it is hourly. Based on this we are able to stop some thermal plants, both government-owned and private, and save coal," said the official. The 10-member team says it is a pilot project and based on the experience gained this wind season they will fine-tune their forecasting.

"We use five forecasting models and each model has an algorithm based on which forecasting is carried out," said association president K Kasthurirangaian. "We need to fine-tune the meters fixed in 12,000 windmills across the state and collect data to ascertain the wind pattern with full confidence," he said.

Source : Times of India, 24.7.2015

पावर ब्रेकडाउन आदेशों से संकट में 3200 मेगावॉट की विंड पावर

बिजली सप्लाई पर लगी पाबंदियों के बाद भी डिस्कॉम प्रबंधन अब विंड पावर प्लांट से जेनरेशन कम करने का कर रहा है मैसेज

बिती रिपोर्टर | जयपुर

प्रदेश में 85 हजार करोड़ रुपए के घाटे से जूझ रही बिजली वितरण कंपनियों ने अब विंड पावर प्लांट से भी बिजली खरीदना कम कर दिया है। प्रदेशभर के ग्रामीण इलाकों में कृषि व घरेलू क्षेत्र में बिजली सप्लाई पर लगी पाबंदियों के बाद डिस्कॉम प्रबंधन अब विंड पावर प्लांट से जेनरेशन कम करने का मैसेज कर रहा है। इससे 18 हजार करोड़ रुपए के विंड पावर के निवेश पर संकट खड़ा हो गया है। फिलहाल प्रदेश में 3200 मेगावाट के विंड पावर प्लांट लगे हुए हैं।

बिजली कंपनियों के इस रवैया पर इंडियन विंड पावर एसोसिएशन ने विरोध करना शुरू कर दिया है। एसोसिएशन का कहना है कि इससे प्रस्तावित रिसर्जेंट राजस्थान पर विपरीत असर पड़ेगा।

तीन महीने में 400 करोड़ से ज्यादा का नुकसान

एसोसिएशन के महासचिव चंद्रशेखर खूंटेटा का कहना है कि विंड पावर प्लांट में अप्रैल से सितंबर तक ही बिजली का ज्यादा उत्पादन हो पाता है। लेकिन, जबरन करवाए पावर केक डाउन से निवेशकों को पिछले तीन महीने में 400 करोड़ रुपए से ज्यादा का नुकसान हुआ है। बिजली कंपनियां मैसेज कर विंड पावर प्लांट में 30 से 60 फीसदी तक बिजली जेनरेशन कम करवा देती हैं। इसके बावजूद बिजली कंपनियां इसके विपरीत काम कर रही हैं।

फीडर इम्प्रूवमेंट प्रोग्राम को फील्ड में जाकर देखेंगे बिजली कंपनियों के अफसर

जयपुर | प्रदेश में बिजली कटौत की दुर्घटनाओं में सुधार के लिए मुख्यमंत्री ने बिजली कंपनियों के आला अफसरों को फील्ड में जाकर निरीक्षण करने व पंचायत समितियों की बैठकों में इसकी चर्चा करने के लिए कहा है। ताकि जनप्रतिनिधियों को फील्ड में हो रही काम की जानकारी हो सके। मुख्यमंत्री ने खराब मीटर बदलने व सस्ती बिजली खरीदने के भी निर्देश दिए हैं। मुख्यमंत्री वसुंधरा राजे ने सोमवार को ऊर्जा विभाग की रिव्यू मीटिंग ली। रिव्यू मीटिंग में सीएम ने बिजली कंपनियों के अधिकारियों को फीडर इम्प्रूवमेंट प्रोग्राम के तहत सिस्टम में सुधार करने के निर्देश दिए।

मुश्किल में विंड एनर्जी कंपनियां

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राजस्थान में पवन ऊर्जा के क्षेत्र में काम कर रही कंपनियों को पिछले तीन साल से पावर कट जैसी समस्याओं का सामना करना पड़ रहा है। इंडियन विंड पावर एसोसिएशन के अध्यक्ष मानक तलेरा ने बताया कि राजस्थान में विंड मिल संचालन के लिए केवल छह माह का समय उपयुक्त होता है, लेकिन इस दौरान भी बिजली विभाग अनाधिकृत रूप से मशीनें बंद कर देता है, जिससे इनवेस्टर को नुकसान होता है। एसोसिएशन के सचिव चंद्रशेखर खूंटिटा ने बताया कि विंड कंपनियों ने राज्य में मिले स्थापित करने के लिए बैंकों से काफी लोन ले रखा है, ऐसे में कंपनियों पर दबाव बढ़ रहा है। इस अवसर पर कोषाध्यक्ष अनिल साबू भी उपस्थित थे।

सोलर एनर्जी नेट मीटरिंग सम्मेलन

औद्योगिक और आवासीय छतों पर सौर ऊर्जा परियोजनाओं के विकास को बढ़ावा देने के लिए राजस्थान सोलर एसोसिएशन और सोलर क्वार्टर ने सोलर एनर्जी नेट मीटरिंग सम्मेलन आयोजित किया। सम्मेलन के मुख्य अतिथि ऊर्जा मंत्री पुष्पेंद्र सिंह ने सौर ऊर्जा क्षेत्र में राजस्थान सरकार की भावी नीतियों और निवेश योजनाओं को रेखांकित किया। आरईआरसी के चेयरमैन विश्वनाथ हीरेमथ ने कहा कि नेट मीटरिंग योजना को आगे बढ़ाने के लिए आरईआरसी द्वारा सभी विनियामक सहायता दी जाएगी।

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सेहत खराब है विंड एनर्जी परियोजनाओं की

राजस्थान में विंड एनर्जी...

सरकारी नीतियों से विंड पावर प्रभावित

जयपुर कासं। राजस्थान में विंड मिल संचालन के लिए अनुरूप मौसम साल में शुरू के 6 महीने का होता है। जिसमें अप्रैल से सितम्बर तक समय श्रेष्ठ होता है परंतु अच्छी हवा व उत्पादन के दौरान बिजली विभाग के अधिकारी अनाधिकृत रूप से मशीनें बंद कर देते हैं, जो सरकारी नीति के विपरित है। इंडियन विंड पॉवर एसोसिएशन के सचिव चन्द्रशेखर खूंटेटा, अध्यक्ष मानक तालेड़ा, उपाध्यक्ष राजेन्द्र व्यास व कोषाध्यक्ष अनिल साबू ने बताया कि गत 3 साल से विंड पावर बहुत ज्यादा प्रभावित हो रहा है। पहले चोरिया हो रही थीं और अब पावर कट अंडर फोसेड बैक डॉउन ने तो परेशानियां बढ़ा दी हैं। निवेशकों के ऋण खाते एनपीए हो रहे हैं। उनका कहना है कि परंपरागत ऊर्जा का संचय नहीं किया जा सकता है, अगर इनका उत्पादन बंद कर दिया जाता है तो वो व्यर्थ हो जाती है। एसोसिएशन ने समस्याओं के समाधान के लिए कई बार अधिकारियों को ज्ञापन भी दे चुके हैं।

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