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From the Editor's Desk.



Offshore Wind !

The share of renewable energy to electricity generation mix is slowly increasing. Currently, Renewable Energy sources contribute 12% in terms of installed capacity. Onshore wind power plays a major role in this contribution at a national level; however, offshore wind power is yet to be explored in India. Europe on the other hand is the world leader in offshore wind power

technology with over 100 GW of offshore wind power projects in various stages of development. China and USA are the two new emerging markets in offshore wind power.

In terms of supply-chain, logistics, engineering and operations, offshore projects turn out to be quite different from onshore projects. The offshore wind turbine foundation and support structures and their transportation and installation aspects are different from those of the onshore wind turbines. The foundations of offshore wind turbines, which are commonly used in Europe for sea depths up to 70m are monopile and jacket foundations. The type of foundation can be chosen depending on the geological study of the site.

The transportation of wind turbine generators and their foundation requires an in-depth study about ports and wind turbine installation and cable laying vessels. Two types of installation vessels, Jack-up barges (JUBs) and wind turbine Installation vessels (WTIVs) can be used for transport of the WTG components. India has 7 government ports (Owned and developed by government) and 17 Captive ports (owned and developed by private companies). For development of port infrastructure importance should be given to turbine component delivery and sequencing of installation.

Offshore wind turbines require special coating for corrosion resistance due to humid condition at sea. Presently India will need to import offshore wind turbines from other countries as there is little incentive to set up large scale offshore wind turbine component manufacturing.

Offshore wind power is capital incentive considering the cost of development of ports, vessels, maintenance and import of wind turbine. All of this cost need to be balanced by the wind resource at the site under consideration as WTG power varies with the cube of wind speed. Taking this into account it becomes very important to perform wind resource assessment at the site as accurately as possible. The climate conditions of the site should also be studied with respect to tsunamis and cyclones. While doing the initial assessment sites should be ranked according to distance from ports, onshore substations, and distance from protected areas. The site becomes increasingly attractive with less distance from port and power evacuation facilities.

Two types of transmission systems, High voltage Alternating Current (HVAC) and High voltage direct current (HVDC) are used for power evacuation from offshore wind farms depending upon the distance from the onshore substation. For higher distances HVDC cables are more efficient than HVAC cables however HVDC cable are more expensive with the need of DC to AC offshore converters. Also with the increase in distance from the onshore substation

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and the size of the wind farm one or more offshore substation may be required.

In 2013 a draft report on national offshore wind energy policy was prepared by the Government of India. Ministry of New and Renewable Energy (MNRE). The report includes the geographical coverage, essential components of offshore wind energy, policies for the offshore wind power development and information regarding offshore wind power technology. The policy suggests making MNRE a nodal ministry for the development of offshore wind energy in India. The policy plans to establish four agencies for the implementation and monitoring of offshore wind development. They are National Offshore Wind Energy Authority (NOWA), Offshore Wind Energy Steering Committee (OWESC), Ministry of Shipping and State Electricity Board or Designated Authority. The major ports of India are under the Ministry of Shipping whereas the minor ports are under the State Government or the State Maritime Board. They will provide access to port or port like facilities with sufficient infrastructural facilities to enable heavy construction / fabrication work at seashore from where it will be moved offshore to the wind farm site.

The policy plans to provide fiscal incentives such as tax holiday for first ten years of offshore wind power generation, concession in customs duty and exemption in excise duty for procurement of technology and equipments to the manufacturers. Besides this nil service tax for services like conducting of Resource Assessment / EIA / Oceanographic Study by third party, utilization of survey vessels and installation vessels may also be available.

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Aspects that may additionally be included in the Policy are :

- 1. Incentivizing of the port development for offshore wind turbine installation.
- 2. Promoting independent project developers for the offshore project developments and checking out the feasibility of the wind farm output. Specific site for the development of wind farms should be marked in the EEZ of the country and its feasibility estimation can be given to private project development companies who have expertise in the offshore wind plant development.
- 3. Importing of HVDC cables and cable laying equipment for offshore cabling: The government should promote domestic production of HVDC and HVAC cables for connection between the wind farm and the onshore substation.
- 4. Installation for offshore meteorological station like (FINO 1)
- 5. Offshore meteorological station should also be included in the draft for getting the exact wind power density values for the development of offshore wind farms similar to onshore wind farms. This can be added as one of the functions of NOWA (National Offshore Wind Authority).
- 6. Incentives
- 7. The policy should also include import tax exemption for the offshore wind projects as most of the components will be imported from Europe. The incentives for project development, manufacturing of offshore turbines may be spelt out.

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From the Chairman's Desk

Dear Friends

In the month of March there were a lot of activities:

- 1. Meeting with TNEB and SRPC officials on February 25, March O3, 2015: SRPC officials had visited Chennai on March O3, 2015 to discuss the matter regarding optimally evacuating the wind energy from Tamil Nadu with officials of TNEB. On that day we got the opportunity to make the appeal to the officials of SRPC and TNEB on need to evolve methodologies & cooperation to fully evacuate the wind energy. Our NC members Shri Rajeev & Shri Dev Anand helped to organise the meet.
- 2. Meeting with Jt. Secretary MNRE at Chennai on March 06, 2015: The matter regarding full evacuation of wind energy in Tamil Nadu was discussed. National Council Members T S Jayachandran, R Kannan and the IWPA Chief Technical Advisor A D Thirumoorthy joined the Chairman. The meeting was very fruitful since IWPA got to discuss what the other key institutions like POSOCO, CERC, CEA besides TNEB positions are when it comes to optimal evacuation of wind energy.
- 3. Visit of Piyush Goyal to Chennai on March 07, 2015: Piyush Goyal, the Hon'ble Minister visited Tamil Nadu to discuss several important issues concerning the growth of the Power position in Tamil Nadu with the Hon'ble Chief Minister Shri O Paneerselvam, Hon'ble Electricity Minister Shri Natham Viswanathan, TNEB Chairman, Energy Secretary including need for full evacuation of wind energy.
- 4. Meeting with GiZ and Idam Infrastructure Officials in IWPA Offices:- India's RE German Consultants GiZ and Idam Infrastructure officials visited our offices at Ahmedabad on March 17, 2015 and Chennai on March 18, 2015. A visit was also arranged by our National Council Member Shri R Kannan for the officials to Kanyakumari where some of the oldest wind farms which need repowering are located.
- 5. Meeting with SRPC officials at Bangalore March 19 & 26, 2015: NC members T Shri S Jayachandran, Shri Manmathan, Shri R Kannan joined Chairman when IWPA had attended two meetings where IWPA Chief Technical Advisor made a presentation and also had discussions. The discussions revolved on how best Tamil Nadu wind energy can be evacuated and the possibilities of export of energy from Tamil Nadu. Shri M.P. Ramesh of Wind World & Shri Vishal Panday of Reconnect enlightened various possibilities for sale of energy in neighbouring States.

6. Meeting convened at Coimbatore to resolve dispute of our members with the manufacturer regarding 0 & M charges: Some of our members



had disputes with one of the manufacturers on demand of the high cost of O & M Charges and the forced refurbishing of WEGs which are more than 10 years old. These members approached IWPA to resolve this contentious issue. We had, therefore, called for a meeting at Coimbatore on March 27, 2015 wherein the Chief Advisor of TASMA was also present. 64 affected members from all over India converged at Coimbatore where senior officials of the company were also present.

Earlier TASMA had taken efforts to resolve this issue. Since it remained unresolved, a joint meeting of TASMA and IWPA was held with the company officials and the affected members.

The company officials explained their stand and reasons for their action. They interacted with our members and were given 15 days' time to consult with their management and revert to IWPA. A list of actionable points were finalized. A follow-up meeting would be convened after a fortnight or so. In the meanwhile the company was told not to stop any more WEGs. Members will be informed in advance of the next meeting. NC member Shri K R Nair joined the meet.

7. Visit of Consul General of Germany to our National Office on March 26, 2015: Mr. Achim Fabig, the Consul General of Germany visited our National Office at Chennai. A presentation was made by Shri V K Krishnan, National Council Member. Shri Raja Sukumar, Honorary Treasurer and the Secretary General were also present. Mr. Fabig who is seized of the evacuation issues faced in Tamil Nadu wanted to know from us how they could be of help in the ensuing 4th International Conference. He mentioned that he could help in arranging expert speakers from Germany. Shri Krishnan explained that one of the main reasons for non-evacuation of wind energy in Tamil Nadu is the need for exposure to modern methodology for a few officials managing the grid. In the context of a narrow frequency bandwidth it calls for a positive approach and effort in integrating infirm wind energy and ensuring the safety of the grid. Shri Krishnan requested that a visit for a few officials managing the grid and also those responsible for policy matters in integrating renewable energy in the grid could be sent to Germany where they could







see for themselves that the same infirm power is integrated in the grid and could learn from the process. Similarly a visit of a few German officials in charge of the German grid could visit Chennai during WE20 BY 2020 Conference and suggest ways and means to integrate more renewable energy into the grid.

- 8. Meeting of our Chairman & National Council Members with TNEB Chairman on March 30, 2015: National Council members Shri Rajeev & Shri Dev Anand had a meeting with the CMD TNEB and discussed the way forward for full evacuation of wind in 2015. Later that day, our Chairman & members met the Director General, NIWE on the part to be played by NIWE in forecasting and the Energy Secretary, Government of Tamilnadu on the measures to be taken to avoid evacuation losses in Tamilnadu in the coming wind season.
- 9. Contract awarded by IWPA to M/s Manikaran Power: A Detailed Project Report to be prepared by Manikaran Power, Delhi on Forecasting, Scheduling and export of surplus wind energy from Tamil Nadu. Shri Amresh & Shri Pravin Abraham were present at Chennai to discuss the report with TNEB on 30.3.2015.

As per contract, PRDC has given their final report on corridor availability in windy months for 3000 MW of wind generation in Tamil Nadu and outside for outward flow. As of now there is no corridor availability for flow from outside to Tamil Nadu.

- 10. 4th International Wind Conference & Exhibition organized by IWPA and WWEA:- The preparatory work for the Conference is going on. We request our members to register for their participation and attend the Exhibition cum Conference and make it a grand success.
- IWPA Award for best performing wind farms for 2013-14 & 2014-15: Members may please send in their nomination for the best performing wind farm awards given by IWPA during the 4th International Wind Conference & Exhibition on June 2015 at Coimbatore.
- 12. Membership Information Sheet: In order to help us update the members records, it is requested that the members data sheet available at www.windpro.org be filled in and sent to our National Office.



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Prof. Dr. K Kasthurirangaian Chairman

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March 30, 2015

Dr. M Sai Kumar IAS

The Chairman & Managing Director Tamil Nadu Electricity Board 144 Anna Salai, Chennai - 600 002

Dear Sir

As the wind season is fast approaching, there is a need to absorb this natural energy and make use of it. In this regard, we request the following from your goodself,

- Lifting of R & C measures during the windy season (June to October 2015)
- 2. Planning annual maintenance of Thermal power stations during the windy season
- 3. Reduce thermal generators to the technical minimum level and conserve coal (Note ##)
- Interstate sale of excess energy to be initiated. A suitable senior officer under CE – NCES has to be designated to coordinate and manage sale of power
- 5. To facilitate forecasting and scheduling by SLDC, metering of pooling sub stations with ABT meters and communicating modems to be completed before start of the wind season
- Permission to gather data may please be accorded for collection of past historic generation data from all pooling sub stations and the data regarding WEGs installed on various feeders like location, make and capacity.

Enclosed are:

 Manikaran Power Report on a)Data Gathering b) Forecasting c) Interstate sale of Power

- 8. PRDC final report on Corridor availability a) in Tamil Nadu and b) Inter state sale
- 9. Nimble Wireless report on metering
- 10. To translate report into actions in field, we request a Task Force consisting of Decision making Officers of TNEB, professionals like Manikaran and Nimble Wireless and IWPA for co-ordination be constituted and pressed into action

We will be thankful for your earliest orders to enable the above.

Thanking you

Yours faithfully

For Indian Wind Power Association

Prof. Dr. K Kasthurirangaian Chairman

Encl: as above

(Note ##) : We are informed that officials of thermal generating stations are provided incentives for monitoring high PLFs. In order to safe guard their interests, stepping down of the load of thermal generating during high wind season may be considered as deemed generation for the purpose of the said incentives.

Copy to: Director Generation, TANGEDCO, Chennai

Indian Wind Power Association

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Meeting of Indo-German Energy Forum officials with IWPA Members at Ahmedabad on 17.03.2015 and at Chennai on March 18, 2015 on the subject of Repowering of Wind Farms

The Indo – German Energy Forum (IGEF) and M/s Idam Infrastructure officials S/Shri Ankan Datta, Ajit Pandit and Indradeep Das had interaction with IWPA members at Ahmedabad on March 17, 2015 and at Chennai on March 18, 2015.

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Discussions revolved around the following issues:

- 1. Evacuation of additional power.
- 2. Inadequate capacity of Substations and transmission lines which are in a poor condition
- 3. Policy issues relating to the PPA including determination of tariff for re-powering projects.



Meeting in session at Ahmedabad on March 17, 2015

- 4. Investment issues of WTG owners.
- 5. Scattered ownership of machines.
- 6. Central policy may not satisfy the issue of all sites.
- 7. Ownership of land.
- 8. Ownership of Wind turbines.
- 9. Spacing norms between wind turbines
- 10. Disposal/Market of old Turbines
- 11. Regulatory Treatment of additional Capital Cost.
- 12. Government incentives for replacing existing wind mills which are in good running condition



Shri Ajit Pandit (second from right) making the presentation



Presentation made by Shri Ajit Pandit (second from left) at IWPA National Office, Chennai on March 18, 2015









Mr. Achim Fabig, Consul General of the Federal Republic of Germany visited IWPA National Office on March 26, 2015.



Shri V K Krishnan, IWPA National Council Member and Shri Raja Sukumar, IWPA Honorary Treasurer made a presentation on "Optimizing Wind Evacuation in Tamil Nadu"



Gist of presentation to the Consul General of the Federal Republic of Germany

More than 2.3 billion units wasted in 2014

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1	High variability of wind			
2	Smaller balancing/control area of the state			
3	Inadequate load for absorbing all wind energy			Strategic direction
4	Repeated penalties for home state relating to integration		I.	
5	Tamil Nadu not able to schedule whole wind energy there is no forecasting mechanism			Wind Energy treated as Common Pooled Energy
	Green O PGCIL	Corridor by		
				Installation of Forecasting Mechanism

How Germany can be of help



March 2015







Chairman Prof. Dr. K Kasthurirangaian discussing with Ms. Varsha Joshi, IAS, Joint Secretary, MNRE when she had visited Chennai on March 06, 2015.

IWPA Chief Technical Advisor Shri A D Thirumoorthy and National Council Members, S/ Shri T S Jayachandran and R Kannan also joined the discussion. Dr. S Gomathinayagam, Director General, NIWE was also present during the discussion.



Letter to Shri Upendra Tripathy, Secretary Ministry of New & Renewable Energy

Prof. Dr. K Kasthurirangaian Chairman

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March 2, 2015

То

Shri Upendra Tripathy, IAS,

Secretary, Ministry of New & Renewable Energy, CGO Complex, Lodhi Road, New Delhi - 110 003

Dear Sir,

1. **CONGRATULATIONS!!** RE –INVEST 2015 was such a phenomenal success to draw investments for more than the anticipated target of 100 GW of Solar, 60 GW of Wind, 10 GW of Biomass and a enlightened gathering of 2800 delegates from 42 countries, 190 speakers of world caliber and so on. All the credit should go to our dynamic Minister, your meticulous planning and hard work of all the officials in the MNRE. **CONGRATULATIONS to one & all!!**

2 (a) EVACUATION in Tamil Nadu (a) Answer to MNRE queries:

Losses in 2013-14	
Wind evacuation in 2012-13	= 11.37 billion units
Wind evacuation in 2013-14	= 9.17 billion units
Evacuation loss in 2013-14	= 2.20 billion units
Financial Losses to TNEB	
TNEB's average purchase price of thermal energy (2013-14)	= Rs. 6.71 per unit
Wind energy purchase price (2.70, 2.75, 2.90 & 3.51) average price	= Rs. 3.05 per unit
Loss to TNEB	= Rs. 3.66 per unit
Annual losses to TNEB (2013-14) =3.66x2.2 billion units	= Rs. 802 crores
Financial losses to captive wind energy generators (50%)	= Rs. 6.00 x 2.2 billion x 50% = Rs. 660 crores
(when they buy alternate energy from TNEB under tariff at Rs. 6.00 per u	unit)
Financial losses to sale to Board (40%)	= Rs.3.05 x 2.2 billion x 40% = Rs. 268 crores
Group captive generators (10%)	= Rs. 5.50 x 2.2 billion x 10% = Rs. 121 crores
Total loss to the Generators	= 660 + 268+ 121 = Rs. 1049 crores
	(contd)

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2. (b) Evacuation in Tamil Nadu – Long term solution with Southern Regional Power Committee (SRPC)

Thanks for your meeting the Energy Secretary of Tamil Nadu along with our National Council Members, Mr. Rajeev Karthikeyan and Mr. Dev Anand. It is nice of you to have motivated him for full evacuation of wind energy by handing over wind evacuation in Tamil Nadu to SRPC. On 25th February, 2015, we have with the permission of the Chairman, TANGEDCO, addressed visiting SRPC delegation and TNEB officials and appealed to make takeover of Tamil Nadu wind evacuation by SRPC a reality in 2015 wind season onwards. The copy of letter thanking the CMD, TANGEDCO, is enclosed for your reference.

As per your advice, Mr Rajeev Karthikeyan of Leap Green has delivered at MNRE office draft of letters to be sent by MNRE -

- i. Requesting MOP to instruct Power Grid to establish REMC (Renewable Energy Management Centre) and facilitating for real time measurement of wind generation under 12th Five Year Plan at Tamil Nadu in 2015 itself to avoid evacuation losses in 2015 onwards..
- ii. MNRE requesting TN Energy Secretary, requesting TNEB to handover wind evacuation to SRPC for the good of Tamil Nadu and other southern States.
- iii. MOP letters to NTPC, Neyveli Lignite Corp and Kudamkulam Nuclear Corpn, requesting them to shutting down their plants for annual maintenance during the wind generation months from June to September, every year, so that other parts of the year need their energy.

We look forward to MNRE for early actions on the above lines,

Thanking you in anticipation,

With best regards,

For Indian Wind Power Association,

Encl: as above



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Export-Import Bank of India had successfully launched a 5 year Reg S Green Bond issue of US\$ 500 mn on March 24, 2015. The issue attracted subscription of around 3.2 times the issue size.

This is the first USD-denominated Green bond offering out of India as well as the first benchmark-sized Green bond out of Asia in 2015 and the third ever Green bond issuance out of Asia. It provides Exim Bank an opportunity to expand its investor base and to support an important market as investors seek more socially responsible investment options.

Exim will use the net proceeds from the sale of the notes to fund Eligible Green Projects in countries including Bangladesh and Sri Lanka.

Green bonds are an increasingly attractive mechanism for both private and public sector organizations to raise capital for projects, assets or other activities that benefit the economy, environment and society.

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A green bond, like any other bond, is a fixed-income financial instrument for raising capital through the debt capital market. In its simplest form, the bond issuer raises a fixed amount of capital from investors over a set period of time, repaying the capital when the bond matures and paying an agreed amount of interest (coupons) along the way.

The key difference between a 'green' bond and a regular bond is that the issuer publicly states it is raising capital to fund 'green' projects, assets or business activities with an environmental benefit, such as renewable energy, low carbon transport or forestry projects. The labeled green bond market (i.e. where the issuers and / or indices label the bond as green), tripled in size between 2013 and 2014, with US\$37 billion issued in 2014. Historically, supranational organizations such as the European Investment Bank and the World Bank, along with governments, have been the most prolific issuers of green bonds, accounting for all labeled issues between 2007 and 2012.

However, there has since been a sharp rise in the number of corporate green bonds issued. In 2014, bonds issued by corporations in the energy and utilities, consumer goods, and real estate sectors accounted for one third of the market. Substantial further growth is predicted and it is forecast that in 2015 the value of green bonds issued will reach US\$100 billion.



Source: Adapted from Climate Bonds Initiative and Barclays MSCI.



Potential benefits

Green bonds can give issuers access to a broader range of investors than regular bonds or other asset classes. They can attract new investors focused on environmental, social and governance (ESG) performance. In the case of a green 'use of proceeds' bond, proceeds are raised for specific green projects, but repayment is tied to the issuer, not the success of the projects. This means the risk of the project not performing stays with the issuer, rather than investor. This can attract new investors that would otherwise avoid investing in green projects due to the higher perceived risk of nonrepayment. For example, the US State of Massachusetts issued both a regular corporate bond and a green bond in 2013. Both issues were priced identically, yet the green bond was 30 percent oversubscribed while the regular bond was under subscribed.

Green bonds can also enhance an issuer's reputation. Issuing a green bond is an effective way for an organization to demonstrate its green credentials by showing its commitment to the environment and improving its own environmental performance. The process of issuing and managing the proceeds of a green bond can improve awareness within the organization of the issuer's sustainability goals and develop closer relationships between finance and sustainability professionals.

Drawbacks

These benefits need to be weighed against potential limiting factors. The issuance and ongoing costs associated with a green bond could be greater than those of a regular bond. These costs include additional tracking, monitoring and reporting processes, as well as up-front investment to define the bond's green criteria and sustainability objectives. Furthermore, investors may seek penalties for a green default, whereby a bond is paid in full but the issuer breaks agreed green clauses.

Whilst an enhanced reputation is a significant benefit, issuers need to minimize their reputational risk. There are currently no standardized criteria for what makes a bond 'green' and no strict requirements for tracking or reporting on proceeds. This can leave issuers open to criticism and accusations of 'green washing'

"The Indian Government is targeting a further 175 GW of additional renewable energy capacity across the country by 2022. There is a significant requirement for innovative financing mechanisms to help meet this challenging target. YES BANK has kick-started the green infrastructure bond market in India by issuing the first ever green infrastructure bond of US\$160 million (INR10 billion) which will fund renewable energy projects such as solar, wind

and biomass projects. This landmark bond issuance has proven to be highly attractive to investors and was twice oversubscribed, reflecting the appetite for green infrastructure financing in India."Rana Kapoor, Managing Director & Chief Executive, YES BANK.

Green bond issuers should consider the following parameters:

- Length of term: the debt capital market provides access to long-term capital versus the bank market, with a typical term five or more years
- Minimum issue size: the standard minimum issuance size of a bond is typically US\$200 million
- Penalties for prepayment: investors may seek onerous penalties for early repayment
- Credit rating: first time bond issuers typically require a minimum of one credit rating from a globally recognized rating agency in order to generate liquidity for their debt, and through doing so, will be exposed to greater public scrutiny from a wider range of stakeholders.

How do we define what makes the bond 'green'?

There are several evolving standards and sources of guidance on green bonds, all of which have a different purpose and approach. These include the Green Bond Principles, the Climate Bonds Standard, green bond indices and sector-specific standards.

It is important to note that these are all currently voluntary, and in some cases, lacking in detail, leading to little consensus on defined criteria for green bonds.

As the green bond market continues to develop, it provides public and private sector organizations with an important source of funding for activities that can bring significant benefits to the environment and society. However, the market is not without risks and challenges. The lack of clear definitions of what is considered 'green', requirements on how proceeds should be tracked, managed and reported on, and the lack of assurance requirements over information reported, all need to be addressed if the market is to build credibility and continue its rapid growth.

KPMG's Capital Advisory and Sustainability Services professionals offer green bond issuers in-depth understanding of the market and an integrated approach throughout the lifecycle of a green bond from pre-issuance to post-maturity.

Courtesy: KPMG's Report on gearing up for Green Bonds





Before the MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

13th Floor, Centre No.1, World Trade Centre, Cuffe Parade, Mumbai - 400 005 Tel: 22163964/65/69 Fax: 22163976 E-mail: mercindia@merc.gov.in Website: www.merc.gov.in / www.mercindia.com

Case No. 34 of 2015

In the matter of Extension of applicability of Generic Tariff Order for Renewable Energy technologies in Case No. 100 of 2014 along with related terms and conditions

CORAM

Smt. Chandra lyengar, Chairperson Shri. Azeez M. Khan, Member Shri. Deepak Lad, Member

DRAFT ORDER (SUO-MOTO)

Dated: 11 March, 2015

In exercise of the powers vested under Section 61 read with Section 181 of the Electricity Act, 2003 ("EA 2003"), the Maharashtra Electricity Regulatory Commission ("MERC" or "the Commission") has notified the MERC (Terms and Conditions for determination of RE Tariff) Regulations, 2010 ("MERC (RE Tariff) Regulations, 2010") on 7 June, 2010.

The MERC (RE Tariff) Regulations, 2010 provide for Terms and Conditions and the procedure for determination of generic tariff on suomoto basis in respect of the following Renewable Energy (RE) generating stations:

- (a) Wind Power Projects;
- (b) Small Hydro Projects, Mini and Micro Hydro Projects;
- (c) Biomass Power Projects;
- (d) Qualifying and Non-Qualifying Non-fossil fuel-based co-generation Plants;
- (e) Solar Photo Voltaic (PV) Projects,
- (f) Solar Rooftop PV and other small Solar Power Projects.
- 2. As per the provisions of the MERC (RE Tariff) Regulations, 2010, the Commission determines the Generic Tariff on suo-moto basis for the RE technologies at the beginning of each financial year for which norms have been specified in the said Regulations.
- 3. Accordingly, the Commission has issued the suo-moto Order on 7 July, 2014 in Case No. 100 of 2014 for 'Determination of Generic Tariff for RE technologies for the fifth year of the Control Period, i.e., FY 2014-15, which is applicable for RE Projects to be commissioned during 1 April, 2014 to 31 March, 2015. The relevant paragraph of the Order in Case No. 100 of 2014 is reproduced as below:

"2.9 APPLICABILITY OF TARIFF ORDER

This Tariff Order shall be applicable for New RE Projects to be commissioned during FY 2014-15 (i.e. from 1 April, 2014 to 31 March, 2015)."





" 5. Control Period or Review Period

5.1 The Control Period or Review Period under these Regulations shall be of five (5) financial years. First year of the Control Period shall commence from the date of notification of these Regulations and shall cover upto the end of financial year 2014-15.

Provided further that the tariff determined as per these Regulations for the RE projects commissioned during the Control Period, shall continue to be applicable for the RE projects for the entire duration of the Tariff Period as specified in Regulation 6 below;

Provided also that the revision in Regulations for next Control Period shall be notified separately and in case Regulations for the next Control Period are not notified until commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations subject to adjustments as per revised Regulations."

- 5. Since the control period of the MERC (RE Tariff) Regulations,2010 is upto the end of financial year 2014-15, i.e., upto 31 March, 2015, the Commission has initiated the process for comprehensive review of said Regulations for the next control period. The revised Regulations shall be notified upon due regulatory process which may require some time.
- 6. In light of the above, the Commission is of the view that it will be appropriate to extend the applicability of existing Generic Tariff Order dated 7 July, 2014, for RE technologies in Case No. 100 of 2014, along with related terms and conditions, till 31 July, 2015.
- 7. In due discharge of the mandate under MERC (RE Tariff) Regulations, 2010 and provision under Regulation 92 of the MERC (Conduct of Business) Regulations, 2004, which deals with the inherent powers of the Commission to make such orders as may be necessary for meeting ends of justice, the Commission, through this Order proposes to extend the applicability of existing Generic Tariff Order dated 7 July, 2014 for RE technologies in Case No. 100 of 2014 till 31 July, 2015.

Sd/-	Sd/-	Sd/-
(Deepak Lad)	(A.M. Khan)	(Chandra lyengar)
Member	Member	Chairperson

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

13th floor, Centre No.1, World Trade Centre, Cuffe Parade, Mumbai-400 005 Tel. 22163964 / 22163965, Fax No. 22163976 E-mail: mercindia@merc.gov.in Website: www.mercindia.org.in /www.merc.gov.in

PUBLIC NOTICE

Advertisement No. 15/ 2014-15

Inviting suggestions /objections on draft of suo-moto Order for extending applicability of Generic Tariff Order for Renewable Energy technologies in Case No. 100 of 2014 along with related terms and conditions. (Case No. 34 of 2015)

- 1. As per the provision of its Terms and Conditions for Determination of Renewable Energy Tariff Regulations, 2010, the Maharashtra Electricity Regulatory Commission has prepared a draft Order for extending the period of applicability of Generic Tariff Order for Renewable Energy technologies in Case No. 100 of 2014 along with related terms and conditions, till 31st July, 2015, which is available on the Commission's website www.mercindia.org.in / www.merc.gov.in in downloadable format.
- The Commission invites written suggestions and objections from the public, Distribution Licensees and other stakeholders on the above draft, which may be sent in 6 copies (1+5) to, the Secretary, MERC, 13th floor, Centre No.1, World Trade Centre, Cuffe Parade, Mumbai 400 005, personally or by Post or Fax or Email [Fax No. 22163976, Email: mercindia@ merc.gov.in] on or before 1st April, 2015.

3. All the suggestions and objections received on or before 1st April, 2015 shall be considered by the Commission.

Mumbai Date: 11th March, 2015 Secretary, MERC







Date: February 16, 2015

March 2015

To,

The Secretary,

Karnataka Electricity Regulatory Commission (KERC), 6th & 7th Floor, Mahalakshmi Chambers, 9/2, M.G. Road, Bangalore- 560001

WINDPRO

Respected Sir,

On behalf of its members Indian Wind Power Association (IWPA) would like to express its sincere gratitude to the Hon'ble Commission for always being in the forefront in promoting environmentally benign energy sources and also endowing its kind support towards development of renewable energy in the state of Karnataka.

Adverting to Notice No. KERC/S/F-43/Vol-3K/14-15/ Date: 29.01.2015 inviting written comments/suggestions/views of the stake holders on the draft 2nd amendments to Standard Formats of Power Purchase Agreements in respect of Non-Conventional Energy Projects; (WIND MILL projects,) we submit as follows.

> Indian Wind Power Association - Karnataka State Council No. 50, Ground Floor, Millenium Towers, Queens Road, Bengaluru 560 051. National Council: *Chennai*; Regional Council: *New Delhi*; State Council: *Ahmedabad, Hyderabad, Jaipur, Mumbai*





On Recital

Amended / additional Clause	Proposed Amendments by KERC	IWPA Comments / Suggestion on Proposed Amendments by KERC
Recital	This Power Purchase Agreement is made atthis	This Power Purchase Agreement is made atthis
Recital	 ESCOM and the Company will be jointly known as the parties and will be individually known as party WHEREAS, i) The Govt. of Karnataka by its Order No. 1] 	 ESCOM and the Company will be jointly known as the parties and will be individually known as party WHEREAS, i) A Generating company under the provisions of Electricity Act 2003 under part III Section 7 may establish, operate and maintain a generating station without obtaining License under this Act if it complies with the technical standards relating to connectivity with the grid and hence permittedESCOM to enter into an agreement with the Company for purchase of Electricity. ii) The Govt. of Karnataka by its Order No. 11

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World's fifth largest* wind turbine manufacturer with an installed capacity of over 21 GW | Operations in 33 countries across six continents | Manufacturing in four continents | R&D facilities in Denmark, Germany, India and The Netherlands

Source : *BTM Consult ApS - A part of Navigant Consulting - World Market Update 2012

Suzlon is the world's fifth largest* wind turbine manufacturer with installed capacity of over 21 GW of wind energy across the globe. While achieving outstanding availability, Suzlon is also committed to providing superior, efficient and customer focused wind solutions. Through its latest S9X turbine platform, Suzlon brings - cost-effective, robust and proven wind turbine technology to the world. Think of it as partnering with a company whose services are just as reliable as the energy it provides.



Suzlon wind farm in Rajasthan, India



WINDPRO



Amended / additional Clause	Proposed Amendments by KERC	IWPA Comments / Suggestion on Proposed Amendments by KERC
Recital	 ii) Pursuant to (i) above the Company plans to develop, design, engineer, procure finance, construct, own, operate and maintain a Wind Energy based Electric Power Generating Station, hereinafter defined as the Project, with a gross capacity ofMW and net capacity ofMW at Village in Taluk District, Karnataka State and desires to sell Electricity generated in the said project to the ESCOM and iii)ESCOM, which is at present engaged in the purchase, supply and distribution of electricity has agreed to purchase Electricity (as hereinafter defined) from the Company to be generated in the said project on the conditions set forth herein. NOW THEREFORE IN VIEW OF THE FOREGOING PREMISES AND IN CONSIDERATION OF THE MUTUAL COVENANTS AND CONDITIONS HEREINAFTER SET FORTH, THEESCOM AND THE COMPANY. 	 iii) Pursuant to (i) Or (ii) above the Company plans to develop, design, engineer, procure finance, construct, own, operate and maintain a Wind Energy based Electric Power Generating Station, hereinafter defined as the Project, with a gross capacity ofMW and net capacity ofMW at

Article-1 DEFINITIONS

Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC	
Article-1	DEFINITIONS	DEFINITIONS	
	"Construction Default" shall mean default on the part of the Company in the completion of the Project before the Scheduled Date of Completion thereof. "Due Date of Payment" in respect of a Monthly Invoice	"Construction Default" shall mean default on the part of the Company in the completion of the Project on or before the Scheduled Date of Completion thereof.	
	means the date, which is Thirty days from the date of receipt of such invoices by the designated official of theESCOM	means the date, which is 15 (fifteen) days from the da of receipt of such invoices by the designated official of th	
1.1	"Interconnection Facilities" in respect of the Company shall mean all the facilities installed by the Company or by any other person acting on its behalf to enableESCOM to receive the Delivered Energy from the Project at the Delivery Point, including transformers, and associated equipments, relay and switching equipment, protective devices and safety equipments and transmission lines from the Project to Corporations/ESCOM's nearest sub- station.	 "Interconnection Facilities" The sentence by any other person acting on its behalf does not find any place under Section 7 of EA 2003 which stipulates generating station need to complies with the technical standards relating to connectivity with the grid. 	



Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC	
1.1	"Delivery Point" or "Interconnection Point" shall be the point at which the power is injected in to the substation bus of theESCOM/Corporation.	 2) The said PPA is Bilateral between two parties i,e, ESCOM and Generating company. It doesn't recognise 3rd party/Other person. Therefore IWPA request this honorable commission to remove the sentence by any other person acting on its behalf and to retain the clause as existing. 3) If the Commission feels this sentence is relevant then the other person on behalf of the company should also to be party to this agreement. Existing definition of "Delivery Point "to be retained in accordance with the explanation note. 	
	"Scheduled date of Commencement" shall mean the date on which the construction work at the Project Site is actually started by the Company and such date shall be within three [3] months from the date of achievement of Financial Closure.	"Scheduled date of Commencement" shall mean the date on which the construction work at the Project Site actually started by the Company and such date shall be within Six [6] months from the date of achievement of Financial Closure.	

Explanation note on "Delivery Point"

CERC RE Regulation No. : L-1/94/CERC/2011 Dated: 06.02.2012

WINDPRO

2. Definitions and Interpretation

n) 'Inter-connection Point' shall mean interface point of renewable energy generating facility with the transmission system or distribution system, as the case may be:

- in relation to wind energy projects and Solar Photovoltaic Projects, inter-connection point shall be line isolator on outgoing feeder on HV side of the pooling sub-station;
- ii. in relation to small hydro power, biomass power and non-fossil fuel based cogeneration power projects and Solar Thermal Power Projects the, inter-connection point shall be line isolator on outgoing feeder on HV side of generator transformer;

Tariff policy notified by Central government

The RE tariff regulations framed by Central Electricity Regulatory Commission u/s 61 of EA 2003, and in terms of para 6.4 of Tariff policy notified by Central government u/s 3 of the Act, specifies the inter-connection point with grid as the 'line isolator on the out-going feeder on HV side of the generator transformer (pooling station in case of wind farms). The relevant provisions under clause 2(I) of RE tariff regulations No. L-1/94/CERC/2011 dated 6-2-2012 of CERC, are extracted hereunder and copy of same has been enclosed as Annexure-A-1:

2. Definitions and Interpretation

(I) 'Inter-connection Point' shall mean interface point of renewable energy generating facility with the transmission system or distribution system, as the case may be:

- a) in relation to wind energy projects and Solar Photovoltaic Projects, inter-connection point shall be line isolator on outgoing feeder on HV side of the pooling sub-station;
- b) in relation to small hydro power, biomass power and non-fossil fuel based cogeneration power projects and Solar Thermal Power Projects the, inter-connection point shall be line isolator on outgoing feeder on HV side of generator transformer; (emphasis supplied)

This means that the grid lines have to be extended up to the switch-yard/ pooling stations of RE generating stations and thus the responsibility of establishing the evacuation lines rests with the CTU/STU/DISCOM, as the case may be.

This Hon'ble Commission in its RE regulations 2011, framed u/s 86(1) (e) of EA 2003 did not specify the measures for connectivity. In the absence of any specific provisions of State Commission, the provisions of Central Commission will govern the field, and also the State Commissions are required to be guided by the principles and methodologies specified by Central Commission u/s 61 of the Act.

However, this Honorable Commission in its amendments to Standard Wheeling and Banking Agreement for Renewable Sources of Energy Projects dated 21st Nov'2014 has re-defined the Injection Point as follows:





"Injection Point" means the point or points at which Electricity is injected by the Company into the Corporation's/ESCOMs' network.

By reading these regulations it is evidenced that the scope for the generator is to create infrastructure up to the delivery point/ Metering point (Billing meter) i.e. at the high voltage side of the step up transformer installed at the receiving Station. Which is in line with CERC definition of interconnection point as per the RE regulation dated 06.02.2012. Hence the project infrastructure considered by this commission is up to the outgoing side of the receiving/pooling station constructed by generating company.

Therefore it is submitted that this Honorable Commission has consciously considered the spirit of EA 2003 while approving the standard PPA. Therefore it is submitted to kindly retain the existing definition of on "Delivery Point" specified in the standard draft under Article 1, (1.1).

Article-2 CONDITIONS PRECEDENT

Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Article-2	CONDITIONS PRECEDENT	CONDITIONS PRECEDENT
2.1.1	2.1.1 Conditions Precedent: The obligations ofESCOM and the Company under this Agreement are conditional upon the occurrence of the following in full:	2.1.1 Conditions Precedent: The obligations ofESCOM and the Company under this Agreement are conditional upon the occurrence of the following in full:
	 a. The Company shall have been granted and received all permits, clearances and approvals (whether statutory or otherwise) as are required to execute and operate the Project (as specifically listed out in Schedule 4) (hereinafter referred to as "Approvals"). 	 a. The Company shall have been granted and received all permits, clearances and approvals (whether statutory or otherwise) as are required to execute and operate the Project (as specifically listed out in Schedule 4) (hereinafter referred to as "Approvals").
	b. The Financial Closure shall have occurred	b. The Financial Closure shall have occurred
		Sub clause (c) may be added as under Audited project cost of the project to be made available to ESCOM and KERC with in 12 Months from COD.
2.1.2	2.1.2 The date on which the Company fulfills any of the Conditions Precedent pursuant to sub-clause (a) and (b) of clause 2.1.1, it shall promptly notify ESCOM of the same and furnish copies of all permits, clearances and other documents in support of fulfillment of conditions precedent, so obtained.	2.1.2 The date on which the Company fulfills any of the Conditions Precedent pursuant to sub-clause (a), (b) and (c) of clause 2.1.1, it shall promptly notifyESCOM of the same and furnish copies of all permits, clearances and other documents in support of fulfillment of conditions precedent, so obtained.
2.2 (a), (b) and 2.2 (c)	2.2 Non-Fulfillment of Conditions Precedent:	2.2 Non-Fulfillment of any of the following Conditions Precedent:
	a. In case of non-fulfillment of any of the Conditions Precedent within six (6) months from the date of signing of this Agreement as stipulated in clause 2.1.1ESCOM shall	i. In case of non-fulfillment of the Conditions Precedent (a) before COD,
	be entitled to terminate this Agreement as provided in clause 9.3.1.	ii. In case of non-fulfillment of the Conditions Precedent (b) within six (6) months from the date of signing of this Agreement as stipulated in clause 2.1.1,



Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
	b. Information of termination pursuant to Clause 2.2 (a) shall be notified byESCOM to the Company and the concerned authorities from whom such of the permits, clearances, approvals and Licenses have been obtained as specified in clause 2.1.1(a).	 iii. In case of non-fulfillment of the Conditions Precedent (c) with in 12 months form COD, ESCOM shall be entitled to terminate this Agreement as provided in clause 9.3.1. (b) Information of termination pursuant to Clause 2.2 (a) shall be notified byESCOM to the Company and the concerned authorities from whom such of the permits, clearances, approvals and Licenses have been obtained as specified in clause 2.1.1(a).

Article-4 UNDERTAKINGS

IWP/

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Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Article-4	UNDERTAKINGS	UNDERTAKINGS
4.1	Obligation of the Company:	Obligation of the Company:
4.1 (v)	The Company shall seek approval of Corporation/ESCOM in respect of Interconnection Facilities.	The Company shall seek approval of Corporation/ESCOM in respect of Evacuation and Interconnection Facilities/ Approval.
4.1 (vi)	The Company by itself or by any other person acting on its behalf, shall undertake at its own cost construction / up-gradation of (a) the Interconnection Facilities and (b) the transmission lines (c) Receiving Station as per the specifications and requirements of Corporation/ESCOM, as notified to the Company.	w.r.t the sentence by any other person acting on its behalf, we request this Honorable Commission to consider our above comments on "Interconnection Facilities" under Article 1.1 Definitions.
4.2	Obligations of ESCOM:ESCOM agrees	Obligations of ESCOM:
4.2 (iv)	to accord approval within a reasonable period for the Interconnection Facilities to be constructed by the Company where the interconnection is 33 KV or Lower Voltage.	to accord approval within a reasonable period for the Evacuation/Interconnection Facilities to be constructed by the Company where the Evacuation/Interconnection is 33 KV or Lower Voltage.

Article-5 RATES AND CHARGES

Amended / additional Clause		Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Article-5		RATES AND CHARGES	RATES AND CHARGES
5.1	а.	Monthly Energy Charges:ESCOM shall for the Delivered Energy pay, during the first 10 years from the Commercial Operation date, to the Company every month at the rate of Rs [Rupees only] per Kilowatt-hour without any escalation.	APTEL In its order dated 25.11.2014 directed this Honorable Commission to fix the tariff for the life time of the project I.e. 20/25 years therefore the said clause to be modified as;





Amended / additional Clause		Proposed Amendments by KERC		IWPA comments / Suggestion on Proposed Amendments by KERC
	b.	From the 11th year onwards from Commercial Operation Date (COD)ESCOM shall pay to the Company for the delivered energy at the rate equal to the end of the 10th year without escalation. For the remaining term of the agreement in case ESCOM is unwilling to purchase the power at the rate equal to the rate at the end of the 10th year, the Company shall be permitted to sell the energy to third parties and enter into a Wheeling & banking Agreement withESCOM/Corporation to sell power for which it shall pay transmission and other charges to ESCOM's/Corporation at the rates applicable from time to time, as approved by the Commission.	(a)	Monthly Energy Charges: ESCOM shall for the Delivered Energy pay, from the Commercial Operation date, to the Company every month at the rate of Rs [Rupees only] per Kilowatt-hour without any escalation for the period of PPA. Sub clause 5.1 (b) to be deleted

Article-6 BILLING AND PAYMENT

IWPA

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Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Article-6	BILLING AND PAYMENT	BILLING AND PAYMENT
6.3	Late Payment: In case the payment of any bill for charges payable under this agreement is delayed beyond the due date of payment, a late payment surcharge at the rate of 1.25% per month shall be payable to the company orESCOM on such amount due, as the case may be.	Late Payment: In case the payment of any bill for charges payable under this agreement is delayed beyond the due date of payment, a late payment surcharge at the rate of 1.25% per month shall be payable to the company orESCOM on such amount due, as the case may be.
		If the interest payment is delayed beyond 30 days by ESCOM. Generating company is permitted to lode the interest component in to the existing Tariff as determined by KERC from time to time. Such tariff should be applicable till the date of settlements of dues to company by ESCOM.
		Example. If the tariff applicable is Rs. 4.20/kwh and if the payment is not paid within 15 days. From the 30th day the applicable tariff for next month is Rs $4.20 + 1.25\%$ (Rs. 4.20) - Say this as "X"
		If the payment is due over and above 30 days then the tariff applicable for the subsequent month is "X" + 1.25% (Rs. 4.20) - say this as "Y"
		If the payment is overdue beyond 45 days then the applicable tariff is Rs. "Y" + 1.25% (Rs. 4.20) so on till the due payable is ZERO
		This will avoid Generating company to file separate petition before this honorable commission for adjudicating the issue of non payment of interest for delayed payment. This commission has witnessed various petitions in the said matters in the past and present. This will create serious obligation on ESCOM to pay the dues with in the due date and this internally save time of commission in addressing these matters.



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MNRE Channel Partner



Our 2 MW Solar Plant with Single Axis Tracking installed near Coimbatore







Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
6.5 (v)	The Company shall allow a rebate of 1.8% of the monthly Invoice amount for the LC account incurred, and the same shall be deducted from the monthly Invoice amount payable to the Company.	It is pertinent to note that all other regulatory commissions like GJ, RJ, AP etc. are allowed rebate options if the payments are made before the due date. It is only KERC who have determined rebate for issuance of LC. Issuance of LC is considered as payment security mechanism. There shall not be any rebate to be levied on such payment security mechanism instruments. At the maximum generating company may bare the const of the LC. Therefore IWPA strongly contest the proposal of this honorable commission allowing 1.8% rebate on the invoice value for issuance of LC towards payment
		security mechanism. Hence the said clause to be modified accordingly.

Article-9 TERM, TERMINATION AND DEFAULT

Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Article-9	TERM, TERMINATION AND DEFAULT	TERM, TERMINATION AND DEFAULT
9.1	Term of the Agreement: This Agreement shall become effective upon the execution and delivery thereof by the Parties hereto subject to approval of the Commission and unless terminated pursuant to other provisions of the Agreement, shall continue to be in force for such time until the completion of a period of twenty (20) years from the Commercial Operation Date and may be renewed for such further period of ten (10) years if the ESCOM is willing to purchase the power on the existing terms & conditions subject to the tariff as may be determined by the Commission.	Term of the Agreement: This Agreement shall become effective upon the execution and delivery thereof by the Parties hereto subject to approval of the Commission and unless terminated pursuant to other provisions of the Agreement, shall continue to be in force for such time until the completion of a period of twenty (20) years from the Commercial Operation Date and may be renewed for such further period of ten (10) years if the Company is willing to supply to ESCOM and ESCOM is willing to purchase the power on the existing terms & conditions subject to the tariff as may be determined by the Commission.
9.3.1	Termination for Company's Default: Upon the occurrence of an event of default as set out in sub-clause 9.2.1 above, or for non-fulfillment of the Conditions Precedent set out in Clause 2.2 herein beforeESCOM may deliver a Default Notice to the Company in writing which shall specify in reasonable detail the Event of Default or non- fulfillment of Conditions Precedent giving rise to the default notice, and calling upon the Company to remedy the same within such reasonable time not less than thirty days as may be specified in the notice	It is relevant to maintain the notice period at 120 days as the default notice may issued for various reasons. Default due to 0&M may occur due to various reasons. Mitigation of 0&M defaults may depend on various factors like availability of spears/ technical challenges/ local and statutory issues. This may give raise to raise dispute and the same to be resolved under Article 10 of this agreement. The total time period specified in Article 10 Dispute resolution is 120 days to resolve the dispute. Without providing such options to generating company upon specifying the reasons for default by ESCOM and without providing opportunity of representation with time while concluding the termination may suffer with equal opportunity and law of natural justice.



Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
	At the expiry of the time specified in the default notice from the delivery of default notice to remedy the default and unless the Parties have agreed otherwise, or the Event of Default giving rise to the default notice has been remedied,ESCOM may terminate this Agreement by delivering a Termination Notice to the Company and intimate the same to the Commission. Upon delivery of the Termination Notice this Agreement shall stand terminated andESCOM shall stand discharged of all its obligations	
9.3.1	However all payment obligations as per Article 5 prior to the date of termination of the Agreement shall be met by the Parties. Where a Default Notice has been issued with respect to an Event of Default, which requires the co-operation of bothESCOM and the Company to remedy, both the parties shall render all reasonable co-operation to enable the Event of Default to be remedied.	Therefore IWPA request this Honorable Commission to kindly consider the default notice period as 120 days as in line with the provisions specified in Article 10 under dispute resolution.

Schedule 3 GOVERNMENT ORDERS

WINDPRO

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Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Schedule 3	GOVERNMENT ORDERS	GOVERNMENT ORDERS
Schedule 3	1] and 2]dated GOK AGREEMENT dated	

Schedule 4 PERMITS, CLEARANCES AND APPROVALS

Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Schedule 4	PERMITS, CLEARANCES AND APPROVALS	PERMITS, CLEARANCES AND APPROVALS
Schedule 4	 Permits, Clearances, Approvals, Statutory and Non-Statutory Permits and Clearances as applicable for Mini Hydel Power Project: I. To be obtained within six months of signing the Agreement 1) Consent from theESCOM for the comprehensive evacuation scheme for evacuation of the power generated by the proposed power projects of M/svide letter no; 	 Permits, Clearances, Approvals, Statutory and Non-Statutory Permits and Clearances as applicable for Wind Power Project: I. To be obtained before signing of the Agreement Consent from the Corporation/ESCOM for the comprehensive evacuation scheme for evacuation of the power generated by the proposed power projects of M/s





Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
	 Approval of the Corporation/ESCOM for interconnection of the Project to the Grid System Permission from all other statutory and non- statutory bodies required for the project Clearance from the Department of Forest, Ecology and Environment. Any other approvals/permits specific to the project Clearance from the Airport Authority of India After completion of the construction of the project and before commissioning of the generating unit/s. Approval of the Electrical Inspectorate, Government of Karnataka for commissioning of the transmission line for evacuation of power from the project and for commissioning of the generating unit/s installed at the at the project site. III After commissioning of the project: Certification of Commissioning of the Project issued byESCOM 	 II. To be obtained within 12 months of signing the Agreement 2) Permission from all other statutory and non-statutory bodies required for the project 3) Clearances from the Department of Forest, Ecology and Environment. If applicable otherwise self declaration by the company on non applicability of such approvals. 4) Any other approvals/permits specific to the project 5) Clearances from the Airport Authority of India. If applicable otherwise self declaration by the company on non applicability of such approvals. Under Article -1 "Scheduled date of Commencement" (SDC) shall mean the date on which the construction work at the Project Site is actually started by the Company and such date shall be within Six [6] months from the date of achievement of Financial Closure. Therefore (SDC) shall be within 12 months from the date of signing of this agreement

Schedule 4 PERMITS, CLEARANCES AND APPROVALS

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Amended / additional Clause	Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
Schedule 4	PERMITS, CLEARANCES AND APPROVALS	PERMITS, CLEARANCES AND APPROVALS
Schedule 4	 Permits, Clearances, Approvals, Statutory and Non-Statutory Permits and Clearances as applicable for Mini Hydel Power Project: I. To be obtained within six months of signing the Agreement 1) Consent from theESCOM for the comprehensive evacuation scheme for evacuation of the power generated by the proposed power projects of M/svide letter no; 2) Approval of the Corporation/ESCOM for interconnection of the Project to the Grid System 3) Permission from all other statutory and non-statutory bodies required for the project 4) Clearance from the Department of Forest, Ecology and Environment. 	 III. After completion of the construction of the project and before commissioning of the generating unit/s. 6) Approval of the Corporation/ESCOM for interconnection of the Project to the Grid System. 7) Approval of the Electrical Inspectorate, Government of Karnataka for commissioning of the transmission line for evacuation of power from the project and for commissioning of the generating unit/s installed at the at the project site. IV. After commissioning of the project: 8) Certification of Commissioning of the Project issued byESCOM.





Amended / additional Clause		Proposed Amendments by KERC	IWPA comments / Suggestion on Proposed Amendments by KERC
		5) Any other approvals/permits specific to the project	
		6) Clearance from the Airport Authority of India	
	п.	After completion of the construction of the project	
		and before commissioning of the generating unit/s.	
		Approval of the Electrical Inspectorate, Government	
		of Karnataka for commissioning of the transmission	
		line for evacuation of power from the project and	
		for commissioning of the generating unit/s installed	
		at the at the project site.	
	III.	After commissioning of the project: Certification of	
		Commissioning of the Project issued byESCOM	

Our prayer before this Honorable Commission is that in order to have clarity and optimally harness the Wind Potential of Karnataka, the above suggestions may be considered which we feel is in the best interest of all concerned. Further, the Commission may look into compliance of PPA terms by ESCOM on quarterly basis and to ensure ESCOM to abide by the terms of PPA without deviation.

We may also request this honorable commission to kindly clarify company setting up generating plant under Section 7 of EA acts needs to obtain allotment /Enhancement/Transfer of capacity order from KREDL/Department of Energy, GOK for signing PPA and implementing Wind power Projects in the state.

Further request to advise KPTCL/ESCOM to consider the application received under section 7 of EA 2003 for Evacuation/Interconnection approval and signing of PPA/WBA.

We request the Commission to kindly consider such other issues deemed fit to address the clarity in implementation of wind power project in the state while approving the said standard Draft.

Further, we may be permitted to submit any additional information if we get before finalizing the order on the subject matter. We may also request for an opportunity of hearing in this regard to present the significance of changes in details.

WINDPRO

Thanking you,

Yours faithfully,

(B S Shetty) President

Indian Wind Power Association (Karnataka State Council)





Discoms fail to meet renewable energy target

WINDPRO

AHMEDABAD: Gujarat power distribution companies have got relief for shortfall in compliance to renewable purchase obligations (RPOs) from the Gujarat Electricity Regulatory Commission (GERC). The state electricity regulator has adjusted shortfall in RPOs for 2013-14.

Every power distribution company has to purchase electricity from renewable energy sources, at a defined minimum percentage of the total consumption of its consumers. This minimum percentage was decided by GERC from 2010-11 to 2016-17. For 2013-14, minimum quantum of purchase from renewable energy sources was 7% (1% from solar and 6% from non-solar).

While assessing the compliance to the RPO norms, GERC had issued notices to state-run discoms Madhya Gujarat Vij Company Ltd, Dakshin Gujarat Vij Company Ltd, Uttar Gujarat Vij Company Ltd, Paschim Gujarat Vij Company Ltd, Torrent Energy Ltd, Kandla Port Trust, MPSEZ Utilities Pvt Ltd, Jubilant Infrastructure Pvt Ltd, Aspen Infrastructure Ltd.

Meanwhile, Torrent Power Ltd (TPL) had filed a separate petition with GERC to revise RPO rates for 2013-14 in view of supply constraints or other factors beyond its control.

The state-run discoms, in terms of overall RPOs, had purchased more power from renewable sources (7.44%), but they fell short when it came to non-solar RPOs (4.99%) against solar (2.07%). They had purchased more solar power which is three times costlier than non-solar energy sources. The GERC allowed adjustment of shortfall in non-solar category against excess in solar category. In case of TPL, GERC found that there was genuine difficulty faced by the company in fulfilling RPO norms.

Source : Times of India

Commitments of RE-INVEST 2015 under Progress: Minister

The Union Minister of New and Renewable Energy, Piyush Goyal, on Thursday, informed that the Central government has started interactions with the State Governments to facilitate the fulfillment of the commitments received in the RE-INVEST 2015.

In this regard, the Minister informed about the financial commitments given by the banks and financial institutions for Green Energy projects, up to 2021-22.

According to the official statistics by the Ministry of New and Renewable Energy, Green Energy Financing Commitments submitted for financing up to 2021-22, in the recently held RE- INVEST 2015, accounts to about Rs 3,52,640 crores for 70,505 MW of generation.

The Minister informed about the implementation of Green Energy Corridor Project for evacuation of renewable energy from generation points to the load centres across the country.

For this purpose, he said, the creation of inter-state and intrastate transmission infrastructure is also under implementation in renewable energy rich States, for the supposed renewable power capacity addition during 12thFive Year Plan period, i.e., by March 2017.

Under this process, the intra-state transmission component is being implemented by the respective states, in association with the Power Grid Corporation of India (PGCIL), the Minister added.

The Minister also informed that the estimated production from the biogas plants set up across the country during the 11th five year plan, is about 85963.53 lakh cubic metres.

A total number of 6.10 lakh family-type biogas plants were installed in the country during the 11th five year plan against a target of 6.40 lakh plants, under the National Biogas and Manure Management Programme, the Minister added.

The Minister further informed that the investments in the renewable energy power projects are mainly from the private sector, besides the generation based incentives and viability gap funding by the government.

In a move towards tapping renewable energy potential in the country, the government has also asked the PGCIL to identify energy potential in desert regions in the States of Rajasthan (Thar), Gujarat (Rann of Kutch), Jammu & Kashmir (Ladakh), and Himachal Pradesh (Lahul & Spiti).

According to the 2013 PGCIL report on 'Desert Power India-2050', a total potential of 315.7 GW of solar and wind power is available in the above mentioned desert regions.

For further harnessing the available potential in those regions up to 2050, a total investment of Rs 43,74,550 crore is required, says the PGCIL's report.

These steps being taken by the Government of India in harnessing the energy potential of the country will definitely be a boost to all the sectors contributing to the growth of national economy and will help the government to overcome long-term energy challenges - See more at: http://www.sustainabilityoutlook.in/ news/commitments-re-invest-2015-under-porgress-minister-627889#sthash.w5gtr5Mi.dpuf

Source: http://www.sustainabilityoutlook.in/



Wind Energy Industry seeks Stable Policy

WINDPRO

The wind energy industry has sought stability and convergence in policies to fully harness the potential of the resource across the country.

"The need of the hour is a stable policy and setting up of renewable energy management centres for streamlining forecasting and scheduling of wind power," industry representatives said in a statement here on Tuesday.

Blaming uncertain policies for their apprehension, Acciona Energy managing director Glen Reccani said though the cost of wind power per MW was the cheapest in the country, he would think twice before investing in the country owing to lack of assurances in policies and incentives and ill-health of the state-run power utilities.

Acciona Energy is a subsidiary of the Madrid-based Spanish firm, which develops renewable energy projects, including small hydro, biomass, solar energy and thermal energy and marketing of biofuels.

"We think twice about setting up shop in India due to lack of assurance in policies and incentives. We would like to receive our money on time," Reccani asserted in the statement.

Though the country has an installed capacity of 10,000 MW annually, less than 50 percent of the capacity is being used as states with surplus wind energy potential have shut their wind mills due to lack of power scheduling.

"As a result, wind energy usage in the country has plunged to 1,500 MW from 3,000 MW over the last two years. The government's ambitious 60 GW target has not attracted the stakeholders in the sector to invest in setting up wind mills," the statement pointed out.

At the fourth wind discussion form held here on Monday, Karnataka's additional chief secretary for energy P. Ravikumar lamented that the state was producing only 103 MW of wind power despite an installed capacity of 2,500 ME.

Organised by the Centre for Study of Science Technology and Policy (C-STEP), Idam Infrastructure Advisory and Shakti Sustainable Energy Foundation, the forum discussed various issues pertaining to the sector and sought early solutions to various problems faced by the industry on land allotment, grid integration, absence of power markets, poor financial health of utilities, lack of access to finances at affordable interest rates and incentives on setting up wind mills.

Source: Business Standard

MNRE includes Punjab in ambitious 'Green Corridor' Project

Punjab will now be in line to receive funds for further strengthening of its transmission and distribution infrastructure

Ministry of New & Renewable Energy (MNRE) has agreed to include Punjab in the ambitious "Green Corridor Mission" project on the request of minister of new and renewable energy of Punjab, Bikram Singh Majithia.

Punjab will now be in line to receive funds for further strengthening of its transmission and distribution infrastructure to ensure efficient evacuation of solar power to the central grid.

Besides this, the Union Ministry has also announced a major roof top solar power pilot project to demonstrate as well as encourage people to set their own solar power roof top projects to successfully implement the net metering policy of the state.

These decisions were conveyed by Upendra Tripathy, secretary, MNRE at the first regional meet held at CII under the chairmanship of Bikram Singh Majithia for implementation of commitments made in India's first global renewable meet RE-Invest 2015.

Majithia said after the successful implementation of 240 MW solar power projects in the state; Punjab has taken a major initiative by offering 65 MW rooftop solar power projects in a single bid. He said the state had the world's biggest single rooftop project of 7.5 MW in Dera Beas and that it was being further upgraded to 31.5 MW in next few months.

"Punjab had also started a unique net metering policy to encourage residents to install rooftop solar projects for domestic use selling power to the State grid. The state has also decided in principle to waive off wheeling charges for power produced from renewable resources and a cabinet nod would be taken soon for this purpose," said Majithia.

Source: Business Standard

GM Will Soon use Wind to Power its Factories

General Motors wants you to know that it's thinking about the environment.

Today, the big-name car maker announced that it will soon use wind to power its manufacturing operations. GM has signed an agreement with Enel Green Power to procure 34 megawatts of wind power from 17 wind turbines for its 104-acre Toluca Complex in Mexico, the company said in a press release.





The construction of the wind farm will begin in the second quarter of 2015, and once it's complete, 75 percent of the energy coming from the wind turbines will fulfill most of the electricity needs of the Mexico facilities. GM says that the remaining 25 percent will help power its Silao, San Luis Potosi, and Ramos Arizpe complexes, also in Mexico, and that the project, on the whole, will help curb nearly 40,000 tons of carbon dioxide emissions at these facilities annually.

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"Our commitment to sustainable manufacturing processes is one way we serve and improve the communities in which we work and live," Jim DeLuca, GM's executive vice president of global manufacturing, said in a statement. "Using more renewable energy to power our plants helps us reduce costs, minimize risk and leave a smaller carbon footprint."

GM is just one of many corporate giants pushing their operations towards clean energy. Elsewhere in the car industry, BMW is using hydropower to make the carbon fiber that goes into its i3 electric car. And across the internet, tech giants such as Google and Apple are using cleaner energy to power their data centers.

Recently, Google announced it will soon be using wind power to run its Googleplex headquarters in Mountain View, California, on the heels of Apple revealing a similar effort.

GM says its project will allow the company to reach its goal of using 125 megawatts of renewable energy by 2020 four years earlier. The company already uses some renewable energy—a combination of solar, landfill gas and waste to energy—to power 9 percent of its North American operations. The addition of wind power, the company says, would push its renewable energy use up to 12 percent.

"This is the largest power purchase agreement that we've done to date," says Rob Threlkeld, GM global manager of renewable energy. "It also helps us diversify our portfolio of energy sources it's cheaper than our current source of power in Mexico—and it makes sense from a sustainable standpoint."

Source: Windinsider

Goyal's visit gives fillip to Tamil Nadu Power Sector

Reserved in:

March 8, 2015

The maiden visit of Union Power Minister Piyush Goyal to Chennai on Saturday saw a host of announcements from him, aimed at providing fillip to the State's power sector, which witnessed an acute power shortage not long ago. The State would get assistance from the Central government's two new schemes — Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme. While the first scheme would provide Rs. 924 crore for improving infrastructure in the rural areas of the State, the second would give Rs. 363 crore for the benefit of nine towns.

As a mark of recognition of Tamil Nadu's work in renewable energy sector during April 2010 - March 2014, the State would get an incentive of Rs. 1,051 crore. This would be as per the recommendations of the 13th Finance Commission.

The Union Finance Ministry had agreed to provide the funds.

"We are hoping to release the money this month," the Union Minister said, after meeting Chief Minister O. Panneerselvam and his team at the Secretariat.

Tamil Nadu would get 100 megawatt (MW) of unallocated power from the second unit of the Kudankulam Nuclear Power Plant too.

Pointing out that the State had also been given 100 MW of unallocated power from the first unit, Mr Goyal said Tamil Nadu would be the recipient of a major share from the unallocated power of the plant.

This would mean that the State's overall share from the two units of the plant would be 1,125 MW out of 2,000 MW.

During their interaction with the Union Minister, the representatives of the State government stressed the need to provide immediate allocation of corridor for supply of power to Tamil Nadu under Long Term Access as Tamil Nadu entered into agreement for power purchase of 3,330 MW by December, 2013.

It was also pointed out that the Government of Tamil Nadu had already raised its objections to the proposed amendments to the Electricity Act, 2003 to separate carriage and content on the ground that it would result in cherry picking of high value consumers by the private players.

Source: The Hindu







IWPA Awards for the Best Performing Wind Farms

March 31, 2015

IWPA invites nominations for the **Best Performing Wind Farm Awards** for the year 2013-14 & 2014-15 from the wind farm owners. The application form is enclosed. The **last date** for submission of completed applications is **Friday, May 15, 2015**.

Separate applications to be submitted for the year 2013-14 and 2014-15. The awards will be presented to the winners during the **4th International Wind Conference & Exhibition WE20 by 2020** scheduled for 22nd and 23rd of June 2015, which is a prestigious event of the Association.

The Wind Farms will be divided into Seven Zones as given below:

- Zone 1 : Wind Farms covered under Aralvoimozhy & Kambam Pass
- Zone II : Wind Farms covered under Shengottah and Palghat Pass
- Zone III : Wind Farms covered under Maharashtra
- Zone IV : Wind Farms covered under Gujarat
- Zone V : Wind Farms covered under Rajasthan and Madhya Pradesh
- Zone VI : Wind Farms covered under Karnataka and
- Zone VII: Wind Farms covered under Andhra Pradesh

Two awards in each zone i.e., one award for the category of wind farms having installed capacity upto 2 MW and one for wind farms having installed capacity of more than 2 MW will be awarded.

Thus there will be 14 awards for each year.

A set of parameters has been identified for evaluation of performance. Different weightage for the various parameters have been proposed. Points will be verified during a site inspection. The performance of the wind farms applied for the awards would be judged based on the following parameters.

- Average Machine Availability
- Capacity Factor
- Age of the Wind Farm
- Cost of Maintenance per unit generated
- Reactive Power Drawal
- Waste Land Development Activities
- Accidents
- Community Service Activities
- Innovative Measures

Eligibility & Conditions:

- 1. The award is applicable only to IWPA registered members and an applying member should not have any financial arrears to the Association as on the date of application.
- 2. Only wind farm capacity and windmills disclosed by the member to our Association will be considered for the award.
- Each application should be accompanied by a Cheque / Demand Draft for Rs. 500/-, towards Registration Fees drawn in favour of Indian Wind Power Association, payable at Chennai.
- 4. All applications should be complete in all respects and incomplete applications are liable for rejection.
- 5. A member can apply for one or more zones, if the member has windmills in several zones.
- 6. Each member shall however submit only one application per zone and it shall include all the windmills registered with IWPA in that zone.

Indian Wind Power Association

Door No. E, 6th Floor, Tower -1, Shakti Towers, No. 766, Anna Salai, Chennai 600 002

Ph: 044 4550 4036 | Fax: 044 4550 4281 | E-mail: iwpahq@windpro.org / secretary.general@windpro.org | Website: www.windpro.org

March 2015



7. The participating windmills should have completed a minimum of twelve months of operation.

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- 8. The application form and data as per the format should be signed by the authorized signatory.
- 9. The decision of the selection committee will be final and binding.

For Non Members:

Non Members are also eligible to apply. However, such of those investors who are not members of IWPA should become members of IWPA by filling in the application for membership which can

be downloaded from the IWPA website www.windpro.org and payment of the first year membership fees along with admission fee.

Members are requested to extend their cooperation and participate in large numbers to ensure the success of this scheme.

Thanking you

Yours faithfully

For Indian Wind Power Association

Encl.: As above

S Gnanasekharan Secretary General

Solar power will be cheaper than conventional forms in the long run: Power Minister Goyal

March 9, 2015

Media News The ambitious targets set by the Centre for the increase in renewable energy capacity are not fiction, said Piyush Goyal, Minister for Power, Coal and New & Renewable Energy.

Asked how it was possible to achieve the goal of 100,000 MW of solar capacity by 2022, he said the Centre was banking on innovative ways of financing the capacity addition and drawing up bankable power purchase agreements in this sector.

If this is achieved, the sheer economies of scale will bring the price of solar power down even further. "I am confident it will become even cheaper than conventional forms of power in the long run," he said.

The Minister was speaking at a lively 'Breakfast with Business Line' at the Park Sheraton Hotel and Towers. Business Line Editor Mukund Padmanabhan led the interaction and moderated the event, which is a platform for an exchange of ideas between people of eminence and the city's corporate and diplomatic elite.

"We have planned 5X growth in renewable energy in the next five years. It is an article of faith for Prime Minister Narendra Modi. India is much more conscious today and all of us recognise that we have to leave behind a cleaner and greener country."

On the Bill to amend the Electricity Act 2003, which has been tabled in the Lok Sabha, Goyal said he hoped it would be enacted in the second half of the Budget session. Asked about the reservations of some States to the amendment Bill, which separates carriage from content, he expressed confidence they would see the wisdom in changes that will increase both competition and efficiency in the sector. "If one or two States come on board, I think the rest will follow under pressure from the public. This is exactly what happened in the case of VAT," he said.

Turning to the coal sector, Goyal was keen on dispelling the widespread notion that there is a shortage of coal for power plants. On the contrary, there is enough coal thanks to the steps taken by the Centre, he said; the real issue is who will use the fuel, he added. "My challenge is where do I use my coal. I don't know where to use the coal if I produce more," he said.

Improving Production

During his 90-minute interaction, Goyal attributed the improved performance in coal production to the continuing efforts by the Narendra Modi government to address this critical issue.

Coal mines cannot stock coal beyond a certain capacity and there is always the fear of piled up coal stocks catching fire. The Minister said he had therefore requested the public sector NTPC to lift more coal so that it frees up stocking capacity for the mines, which, in turn, can produce more.

Source : The Hindu Business Line



IWPA Awards for Best Performing Wind Farms 2013-14 and 2014-15 Application Form

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1. Name & Address of the Member:

2. Total No. & Capacity of Windmills registered with IWPA

SI. No.	Zone No.	State	No. of Wind Mills	Capacity of Wind Mills (in kW)
***	Total	****		

3. Details of Wind Mills applied for award (please furnish details only for those zone applied for)

Description	Zone	Zone	Zone	Zone
Name of Wind Farms				
Village / Taluk				
District / State				
O & M Expenses / kWhr. of all windmills (Rs.)				
Details of Accidents:				
a. Nature of accident				
b. Number of accidents				
c. Steps taken to avoid reoccurrence				
* Innovative measures taken to improve the performance of the WF.				
* Wasteland development details in the respective wind farm. Area covered in acres. Variety of Plants				
* Social / Charity activities				
Mention in brief the activities and money spent in lakhs in that particular area				
Operational data	Annexure I	Annexure II	Annexure III	Annexure IV

* Use separate sheets, if necessary.

Place :

Date :

FOR USE OF IWPA

Application Form No. :

Date of Receipt





Signature of the Authorized Person



ANNEXURE - I (Sheet 1)

(Please use separate sheets for each zone, Annexure I for Zone I, Annexure II for Zone II and so on.)

PERFORMANCE REPORT OF THE WIND FARM FOR THE YEAR 2013-14 & 2014-15

(Details are to be furnished separately for each HT Sc. No.)

Name of the wind power project:

WINDPRO

SI. No.	Particulars	1	2	3	4	5	Total		
1	HTSC No								
2	Name of Electricity Utility								
3	Electricity Distrubution Circle								
4	Name of the Sub-station								
5	Name of the feeder								
6	Voltage (11 / 22 / 33 kV)								
7	Number of WTs								
8	Total installed capacity in kW								
9	Date of commissioning (DD / MM / YY) (Make Capacity) x No. of machines (Make Capacity) x No. of machines Note: If there more Makes of wind mills in a HT SC, insert additional rows.								
10	Total export of generation of all WMs in the HTSC as per utility meter (kwhr)								
11	Utility grid availablility for the year (Hours) Note:- Available hours in the year * No of Machines minus total utility grid down time of all the machines.								
12	Reactive power drawn from grid, as per Utility meter (Rkvah)								
13	Average A.F for Wind farm @								
14	Average C.F for Wind farm @@								
15	Reactive power drawn from grid, as a percentage of exported power from wind farm @@@								
Ø	Average Availability factor for WF (%) = $\frac{\text{Grid ava}}{2}$	y factor for WF (%) = Grid availablility for the year - Total downtime (hours) Grid availablility for the year (Hours)							
@@	Capacity factor (%) =	Total generation exported in a year Installed capacity in kW x 8,760 hours							
@@@	Reactive power drawal (%) =	eactive pow al generation	er drawal in n in units ex	metered uni	its x 10 rear	00			



INDIAN WIND POWER ASSOCIATION Member Information Sheet

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WINDPRO

- 2. Address for Correspondence :
- 3. Office Phone No.

4. Person nominated as representative with designation (Should be an employee of the Company)

	Name	:	
	Designation	:	
	Phone No. (Office)	:	Mobile :
	Email	:	
5.	Category of Members	:	Generating / Manufacturing (Machine/ Ancillaries)
(Ple	ease Tick the appropriate box)	ł	Service Providers (Including consultants)
			Educational & Research Institutions & other promotional bodies /
			Financial Institutions / Honorary
			Small Wind (Manufacturers/owners)

6. Brief Description about your Wind Electric Generator: (For Generating Members)

SI. No.	Location	(A) No. of Wind Mills	(B) Rated Capacity in MW	Total {(A)x(B)} in MW	Make	Connected Substation	Located in STATE
1.							
2.							
3.							
	Total						

7. Whether units generated are: Sale to Board Adjusted in Factory

Indian Wind Power Association

Door No. E, 6th Floor, Tower -1, Shakti Towers, No. 766, Anna Salai, Chennai 600 002

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THE CENTRE HAS DECIDED TO GIVE 100 MW OF UNALLOCATED POWER FROM THE SECOND UNIT OF THE KUDANKULAM NUCLEAR POWER PLANT TO TAMIL NADU

PROSPECTS DOK BRIGHT

WINDPRO

he southern States including Tamil Nadu, which frequently experienced power shortages, may witness perceptible changes in the availability of power soon with the Power Grid Corporation of India (PGCI) having decided to invest nearly Rs. 30,000 crore for improving transmission facilities.

One of the reasons for the shortage is the lack of transmission infrastructure. It was this reason that made Tamil Nadu a few years ago not to have even contracted power.

Making the announcement on the PGCP's move in Chennai on Saturday, Union Power Minister Piyush Goyal told the media that the investment would be made over a period of over two to three years for evacuating power from northern States to the south.

Underscoring that the transmission project would benefit Tamil Nadu substantially, he went on explaining that the inlitiative would ensure that the growing needs of the State for power in the next few years would be "sufficiently taken care of." More power would be supplied to the State.

This would help Tamil Nadu

THE CENTRE'S INVESTMENT WILL BE MADE OVER A PERIOD OF OVER TWO TO THREE YEARS FOR EVACUATING POWER FROM NORTHERN STATES TO THE SOUTHERN STATES The Central government is committed to support the power sector in Tamil Nadu and is making several new initiatives to serve people of Tamil Nadu - PIYUSH GOYAL, UNION MOS (Independent charge for Power, Coal & Reservable Eurory

register high growth, speedy in-

register high growth, speedy industrialisation and generation of more jobs, he expressed the hope.

During their interaction with the Union Minister, representatives of the State government sought his intervention in getting the entire unallocated share from three units of the Vallur thermal power station, put by the Tamil Nadu Generation and Distribution Corporation (TANGEDCO) and NTPC. If granted, the State would get 225 megawatt (MW) more.

Similarly, the State made a case for the unallocated share (150 MW) from the 1000-MW Tuticorin thermal power plant, established by the TANGEDCO and the Neyveli Lignite Corporation.

Minister's assurance

These two demands have been made, considering that Tamil Nadu is the host State. The Minister assured the State's representatives that he would do his best.



Grid connectivity set to improve

Ajai Srivatsan

W ith Union Power Minister Physik Goyal assaring massive investments to shore up southern India's grid transmission capacity. Tamil Nadu's quest for bringing in excess power from northern States will gradually become easier, say senior government officials.

The State has already signed purchase agreements worth 3.300 MW with power-surplus States such as Chhattisgarh and Gujarat, a senior Tangedco official said.

Though these agreements were operational in the summer of 2014, interior districts in Tamil Nadu still suffered rolling outages because of the inability to transmit excess available power through the country's nascent. North-South grid. India installed a country-wide unified power grid only in January 2014, a full 67 years after Independence. The southern region was the last to be added to the national grid, and even now, only 2,100 MV of transmission capacity is available to be shared among the five southern States.

"We have been demanding better grid connectivity for several years. The Ministers' announcement shows the Centre has acceded to our demand finally," a senior government official said.

The demand-supply gap in Tamil Nadu currently stands at around 1,000 MW on an average day and is likely to widen as the mercury rises further.

Source: The Hindu

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*The prescribed AEP is site specific and depends on various climatic parameters