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Webinar

Repowering Older Wind Farms in Central and Northern Region

Tuesday, 25th May, 2021 from 3:00 to 4:30 PM

Key Speakers

 Mr. B. P. Yadav Joint Secretary MNRE	 Mr. D.D. Jagdale Joint Secretary, MNRE	 Mr. M P Ramesh Formerly Executive Director, CWET
 Mr. Mahesh Vipradas Vice President, Sembcorp India	 Dr. Martin Lux Head of Energy Cell KfW	 Mr. MU Krishnajith General Manager, Idam Infrastructure
 Dr. P. K. Dash Scientist D MNRE	 Dr S. Gomathinayagam Former DG, NIWE	 Mr. Srinivas Krishnaswamy CEO , Vasudha Foundation
 Mr. V. Subramanian Former Secretary, MNRE		

- List of invited speakers. Names are in alphabetical order

Background

The Government of India has set a target of deploying 175 GW of renewable energy capacity by 2022. The major part of this target is to be achieved through solar to the tune of 100 GW, 60 GW from wind and the balance from small hydro and biomass. Wind power has reached 37.879 GW till 28th February, 2021. This would increase by around 13 GW that is in the pipeline (at different stages: tendered, awarded and under-development). But the fact remains that addition of wind power capacity in India is lagging behind the Union Government target for 2022.

After COVID-19 pandemic, the installation of new wind turbines has dropped drastically. While the new projects are planned and set up in Greenfield areas, there is also a huge opportunity to enhance the capacity in many of the existing project sites. Currently, many high windy sites in Tamil Nadu and Gujarat are occupied by large number of wind turbines of very low capacity of less than 500 kW with hub heights of not more than 25 to 50 meters and an average capacity utilisation factor (CUF) of only less than 20%. These were installed during the early days when technology had not developed to tap more energy at higher hub heights and longer blades. Moreover, these were commissioned by SMEs that took the benefit of accelerated depreciation. As a result, ownership was also in small capacities of low power generating wind turbines. Therefore, these sites should be available for modern wind turbines with a hub height of 100 to 120 meters and the effective CUF could be at least 30-35%. Repowering of old wind power projects appear to be an ideal and effective tool to harness the massive potential of wind energy. This would be an appropriate option to achieve the targets.

MNRE notified the Policy for Repowering of the Wind Power Projects on 5th August, 2016. It was expected that the policy would facilitate the smooth implementation of repowering of old wind projects. But the expectations have not been fulfilled. The developers have faced many problems on the ground. According to IDAM- IGEF report, more than 20,000 wind turbines of below 1 MW capacity of around 11,000 MW have been installed across the country. These low capacity turbines have been installed at high windy sites in the

Supporting Organisations:

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

KFW

IWTMA INDIAN WIND TURBINE MANUFACTURERS ASSOCIATION

Webinar Objectives

1. Take up issues/challenges being faced by the developers in implementing repowering projects in the different States.
2. Address gaps in the policies of Union and State governments.
3. Frame a feasible plan of action.

Benefits of Repowering of Old Wind Turbines

1. Higher efficiency and Capacity Utilisation Factor of machines.
2. Optimum exploitation of Class I and Class II wind sites.
3. Optimal use of scarce land resource.
4. Reduction of Operation and maintenance (O&M) costs.
5. Better grid integration of high-powered machines.
6. Environmental benefits in terms of less impact on bats and birds.
7. More REC and CDM benefits.
8. Better availability of financial resources.

It is all the more necessary to get the support of the State Governments who control the Discoms to achieve an optimum capacity at a fast pace. During a period when discussions have started on closing down old and inefficient coal based thermal plants, the ideal option of increasing the capacity in ideal wind sites, is unfortunately, not getting enough attention.

The objective of the Webinar is to discuss these issues and come up with possible strategies to overcome the bottlenecks.

FREE REGISTRATION BUT LIMITED SEATS.

Date: 25th May, 2021

Time: 15.00-16.30 HRS (IST).

ANY QUERY OR REGISTRATION FOR WEBINAR, PLEASE CONTACT:

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Key Implementation Issues and Challenges

1. Large number of turbine owners (or fractional ownership) in a small area.
2. Lack of grid connectivity at appropriate technical requirements in such areas.
3. Availability of capital to augment and upgrade the grid capacity.
4. Disposal of old turbines and their decommissioning costs.
5. Lack of proper incentives for the project owners from the government and project developers.
6. Lack of appreciation of the benefits of repowering by the Discoms.
7. The status of existing PPAs and the key requirement of revised PPAs with the Discoms for energy purchase.