

e/83
c/83

PP/ CP/Wind/ MEDA/

Date:

25545

12 AUG 2016

To

✓ **The General Manager, (PG-1/ID),**
Maharashtra Energy Development Agency (MEDA)
MHADA Commercial Complex, 2nd Floor, Opp. Tridal Nagar.
Yerwada, Pune-411 006

Sub: Comments on Classification of Wind Power Projects into wind zone class.

Ref: MEDA Notice No. IDD 2010/CR-28/WRA-028/2016-17 dated 15.07.2016.

Dear Sir,

With reference to the above subject, this office is in receipt of notice, under reference, in the matter of Classification of Wind Power Projects into wind zone class. Accordingly, comments of MSEDCL are submitted below:

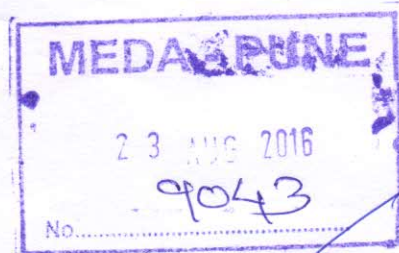
MSEDCL Comments:

At the outset, MSEDCL submits that presently classification is being done on the basis of historical data measured at 50 m hub height and there is a need of more scientific and logical approach to establish correct wind zone. Hence, MSEDCL has requested the Hon'ble MERC to reconsider the zone wise classification & tariff for wind projects in the State and to determine a single tariff like other states such as Gujarat, Karnataka, Andhra Pradesh and Tamil Nadu. The classification of wind zone has a financial angle and hence the concerns of MSEDCL need to be considered in right spirit and need to be apprised to the MERC.

1) Measurement of annual mean Wind Power Density (WPD) at 80 m hub height:

Nowadays, it is observed that most of the new wind power projects which are being commissioned / are commissioned in the recent past are having the hub height in the range of 80 to 110 meters. Major wind turbine manufacturers now routinely offer turbines with hub heights above 80 meters. Greater hub height of wind turbines allows greater utilisation of wind energy due to the greater wind potential available at higher heights and a larger rotor diameter.

Scrutiny of wind generation data from field office reveals that greater hub height has resulted into enhanced efficiency of Wind Turbine Generator and enhanced generation with better CUF.



25/8/16
Please take note of comments of MSEDCL in view of Wind zoning
SWS/WVP
M

C/85
C/85

However, it is observed that the MEDA is following the procedure for classification of wind power projects into particular wind zone on the basis of measurement of annual mean Wind Power Density (WPD) at hub height of 50 metres only. Therefore, most of the wind power projects are getting classified into wind zone-1 only with $CUF \leq 20-22\%$ which is the minimum CUF. Such classification has enabled wind power projects to get highest tariff for wind energy from MSEDCL. It is not correct to classify the wind power projects having hub height above 80 meters on the basis of WPD measurement at 50 meter.

The MERC in its order dated 07.07.2014 in Case No. 100 of 2014 has observed that *"The Commission observes that CERC while issuing the RE Tariff Regulations, 2012 has revised zone-wise classification and respective CUF based on 80m hub height highlighting that there is no merit in contentions that WPD zones should be defined at 50m when most of the wind turbines being installed in India are having hub heights of about 80m. Further, the Commission notes that CERC while formulating its RE Tariff Regulations, 2012 has observed that some of the stakeholders including manufacturers of wind turbine are also in agreement with considering 80 m hub height against 50m hub height turbines.*

The Commission is of the view that while promoting the wind power generation through preferential tariff and other Regulatory measures, the benefit of advancement in the technology and improvement in the performance thereof should also be passed onto the utilities/consumers. In this context, the Commission notes the submission made by MSEDCL that there is need to review the wind zone classification based on the actual generation by wind power project at the end of the financial year.

----- Accordingly, the Commission directs MEDA to submit a report of project-wise CUF of wind projects in the State for the latest two years (FY 2012-13 & FY 2013-14) which would be taken into consideration to arrive at the CUF norms to be specified against the revised zone-wise classification at higher hub height. Result of such analysis shall be considered by the Commission for arriving at appropriate CUF norms in the future years".

Further the MERC RE Tariff Regulations, 2015 provides that *"The annual mean wind power density specified in Regulation 28.1 shall be measured at 80 meter hub height, and State Nodal Agency shall certify the Wind Zone relevant to the proposed Wind Energy Project".*

In view of the above, it is submitted that for classification of wind power projects into wind zones, measurement of WPD should be considered at 80 meter hub height only.

2) Review of previous wind zone classification in line with actual generation:

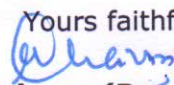
MSEDCL has carried out a sample data analysis of actual wind generation vis-a-vis CUF as per wind zone allotted by MEDA in respect of new wind power projects commissioned after FY 2010-11 and it is observed that many wind power projects are getting higher generation with CUF more than 20 % consistently for consecutive three years.

Therefore, it is observed that the wind power projects are getting unduly benefited because they are generating more @ CUF of wind zone II and are still getting highest tariff of wind zone I. Therefore, classification of wind power project into a particular zone entails huge financial implications considering the EPA tenure of 13 years. Incorrect classification leads to undue financial burden on MSEDCL consumers.

Hence, it is suggested the wind zone classification needs to be reviewed at the end of financial year based on the actual generation submitted by the generator. If the generation is more than Wind Zone 1 CUF, the wind zone classification needs to be changed accordingly and the account should be reconciled. The relevant wind zone tariff needs to be made applicable for the next financial year. If the generation is within the range of classified wind zone, the same wind zone needs to be considered for next financial year.

Such type of annual verification needs to be carried out for the first three years from the date of commissioning and the correct Wind Zone Classification based on average CUF, needs to be decided which will be applicable for the remaining tenure of EPA (Balance 10 years) so that benefits of better efficiency can be passed on the common consumers.

This is for your information and necessary action.

Yours faithfully,


Chief Engineer (Power Purchase)

Copy s.w.r. to:

1. The Director (Operations), MSEDCL, Mumbai.
2. The Executive Director (Commercial), MSEDCL, Mumbai.