

: T A N G E D C O :

(Abstract)

NCES – Wind energy – Erection of wind mills – Minimum land requirements, boundary distance and spacing criteria to be maintained with neighboring wind mills and land – Better utilization of wind resources due to scarcity of land availability – Certain revised Guidelines - Order issued – Reg.

(Technical Branch)

(Per) TANGEDCO Proceedings

(CMD) No.: 469.

Dated 09, November 2018.
Aypasi 23, Vilambi Aandu,
Thiruvalluvar Aandu 2049.

- Ref: 1. Permanent B.P. (Ch) No.324, dt:27.07.2005.
2. Permanent B.P. (Ch) No.469, dt:31.10.2005.
3. CMD/TANGEDCO Note approval dt:02.11.2018.

Proceedings:

As per the B.P. (1) & (2) cited, the wind developers have to maintain the following distance / spacing criteria.

- a) The distance between the proposed WEG's with adjacent wind mill, if any, formed in a row, should be atleast five times the diameter of the rotor. The row should be formed such that it is perpendicular to the predominant wind direction. The distance between subsequent rows should be atleast seven time the diameter of the rotor, so that performance of the WEG's will not get affected if any manner.
- b) The developer should own the land or lease to the extent of $\frac{1}{2}D+5m$ in all four directions.
- c) (Height of the Tower + $\frac{1}{2}D+5m$) if the wind mills are proposed to be erected nearer to the National Highway Roads and Railway Tracks in addition to the locations nearer to a building, school, residential place etc.

Further it is clarified that the "Tower Height + $\frac{1}{2}D+5m$ " is only the minimum spacing required, as in the case of 5D and 7D spacing between wind mills but the minimum area of the land required to be owned or taken on lease by the private developer for all cases remains the same as $\frac{1}{2} D + 5m$ " in all four directions to avoid aerial trespass of the blades into the Neighboring land".

Now due to enormous growth in the wind sector, there is a shortage of land in wind resource area. Further due to advancement in wind turbine technology, and the increase in height of the tower, the above spacing / distance criteria needs to be reviewed to better utilize the available wind resource in a limited availability of land.

Further the MNRE has also come out with "Guidelines for development of onshore wind power dt: 23.10.2016 in which relaxing of micro-siting is being envisaged.

In addition to the above, there is an imperative need for repowering of WEGs erected some 20 years before since they have served their life time and also to better harvest the wind potential. The MNRE has also come out with Repowering policy vide Notification No. 66/175/2015-WE, dt: 05.08.2016.

Hence considering the above aspects, the 5Dx7D micro-siting spacing criteria existing vide (a) in para 1 cited above is hereby revised as detailed below:

- (a)(i) For the new projects of wind farm/park model under IDC or 10 (1) cases, as per micro-siting the distance of 2Dx3D, 3Dx5D, 4Dx6D, 5Dx7D etc which ever may be adopted for each WEG within their wind farm/park area.
- (a)(ii) If the proposed WEG is nearer to the existing other developer WEG, 5Dx7D concept is to be adopted to avoid unnecessary dispute, however with the consent of adjacent WEG owner 5DX7D norms may be relaxed.
- (a)(iii) For repowering cases 3Dx5D may be adopted inside their cluster area, but in the outer, the 5Dx7D concept may be adopted with respect to the other developer WEG. However with the consent of adjacent WEG owner 5DX7D norms may be relaxed.
- (a)(iv) If the proposed new/repowering WEG is nearer to the already registered/proposed locations, 5DX7D criteria has been relaxed to 3DX5D to accommodate optimum WEG location to achieve the objective of the MNRE guidelines.

The other land requirement and aerial clearance as mentioned in (b) & (c) in para (1) above remains same.

(BY ORDER OF THE CMD/TANGEDCO)


CHIEF ENGINEER/NCES

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