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Interactive comment

Interactive comment on "Effect of Atmospheric Stability on the Wind Resource extrapolating models for large capacity Wind Turbines: A Comparative Analysis of Power Law, Log Law and Deaves and Harris mode" *by* Pramod Kumar Sharma et al.

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Dear Sir The responses against of your comments follow: Section 2: Jamgodrani hills selected as a key potential area regarding wind power potential. Dewas wind farm was located nearby this location by Govt. of M.P. with the collaboration of National Institute of wind Energy, Chennai. Please find the latest publication (all cited in the literature) on this topic. 1. Gualtieri, Giovanni., Secci, Sauro ., 2011. Comparing methods to cal-

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Discussion paper

culate atmospheric stability-dependent wind speed profiles: A case study on coastal location. Renewable Energy 36 (2011) 2189-2204 2. Gualtieri, Giovanni., 2017. Wind resource extrapolating tools for modern multi-MW wind turbines: Comparison of the Deaves and Harris model vs. the power law. Journal of Wind Engineering & Industrial Aerodynamics 170 (2017) 107–117. 3. Gualtieri, Giovanni., 2016. Atmospheric stability varying wind shear coefficients to improve wind resource extrapolation: A temporal analysis. Renewable Energy 87 (2016) 376-390. 4. Kikumoto, Hideki., Ooka, Ryozo., Sugawara, Hirofumi., Lim, Jongyeon., 2017. An observational study of power-law approximation of wind profiles within an urban boundary layer for various wind conditions. Journal of Wind Engineering & Industrial Aerodynamics 164 (2017) 13–21.

Section 3: Corrected. Section 4: It's the first time when Monin Obukhov Similarity theory had been applied at Jamgodrani hills to verify its stability criteria by installing two temperature and four wind speed sensors at different heights. I think it is the new work in the field wind speed extrapolating models at Jamgodrani hills. Please see the reference 2. Gualtieri, Giovanni., 2017. Wind resource extrapolating tools for modern multi-MW wind turbines: Comparison of the Deaves and Harris model vs. the power law. Journal of Wind Engineering & Industrial Aerodynamics 170 (2017) 107–117. The windPRO software was used to analyze the characteristic terrain parameters. As per the referee comment, it would be removed from the final version of the manuscript. It can be possible to draw the entire figure in excel also. Section 5: Please see all the above four cited references. Research gap was created by study all the cited articles in the literature, but mainly the above four articles had motivated to create this area of working. This work has highly relevant to the researcher working in the area of stability analysis for terrain by applying Monnin Obukhov similarity theory and comparing with Deaves & Harris model, the PL and log law. The research is still going on this field. We have extended this area of working on Jamgodrani hills. Research is underway at Jamgodrani hills. (Extension of the previous work) 1. Journal: WES Title: Modeling of Atmospheric Boundary Flows Using Experimental Investigation over complex Terrain in a Non Neutral condition. Author (s) Pramod Sharma et. al.

Manuscript No. wes-2018-41 2. Journal: WES Title: Numerical and an Experimental Analysis of the flow over the Sinusoidal hills. Author (s) Pramod Sharma et.. al. Manuscript No. wes-2018-40 I think it is suitable for publication to wes journal.

Please also note the supplement to this comment:
https://www.wind-energ-sci-discuss.net/wes-2018-16/wes-2018-16-AC4-supplement.pdf

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