

Interactive comment on “Using wind speed from a blade-mounted flow sensor for power and load assessment on modern wind turbines” by Mads M. Pedersen et al.

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Thank you very much for the review, comments and corrections.

The power and load curves cannot be compared to existing methods in its present form, as the current method measures the disturbed wind speed at the rotor plane while existing methods measure the free wind speed. A discussion on the accuracy is therefore difficult as there is no reference. This is the reason why we focus on variability between periods or cases instead of accuracy. It is however possible to compensate for the presence of the turbine using an aerodynamic model (Pedersen et al., 2015), but it requires detailed knowledge about the aerodynamic properties of the blades,

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several assumptions and compromises, and it adds additional uncertainty. Our idea was therefore to investigate the application of blade mounted flow sensors without this step and we will in the revised manuscript give examples of applications of the method where the induction compensation is not necessary.

Thank you for pointing out grammatical errors and undefined variables. We will correct the mentioned errors, define all variables and make a thorough edit.

References: Pedersen, M. M., Larsen, T. J., Larsen, G. C. and Aagaard Madsen, H.: Turbulent wind field characterization and re-generation based on pitot tube measurements mounted on a wind turbine, in 33rd Wind Energy Symposium, American Institute of Aeronautics and Astronautics., 2015.

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