

Reviewer 3

The reviewer would like to thank the authors for considering the suggestions.

In reply to the response please consider the following:

-In the derivation of Jones' method, which considers 3 sections (upstream (0), at wake rake (1) and far downstream (2)), it is assumed that the static pressure at sections (0) and (2) are equal, which can be challenged in a rotor application. Now the authors mention that Jones' method still holds because the static pressure is being measured also in the rotor plane (and not at an undisturbed upstream position). However the formula displayed in the manuscript still resembles Jones' original equation and it is not clear where the static pressure from the pitot comes in or how this validates the usage of the original equation. Therefore, it is anticipated that static pressure gradients due to rotor blockage can affect the determination of drag coefficient in this setting.

Reply: see extended text (red) in 2.2.1.

-Unsteady characteristics

It is recommended to clarify the reduced frequency in the manuscript to get a sense for the unsteadiness.

Reduced frequency based on $1p = 0.013$ which means we are in the quasi-steady regime.

Reply: Inserted in text (red) in 2.3.6.

-Drift

It would be worthwhile to add the considerations regarding drift in the manuscript.

Reply: - from data sheet, drift $< 1 \text{ mbar / year}$

Inserted in modified text (in red) in 2.3.4-

-RTR

Pity that the RTR results are removed, as it could shed more light on the observed drag offset. But I suppose there is more than enough material for publication with wind tunnel and field test already.

Reply: None.

-Parasitic drag

The authors mention that the effects of the instrumentation on the power and load levels of the turbine are minimal. It would be good to substantiate this claim based on arguments or measurements.

Reply:

If we assume a small part of the blade span at the instrumentation, e.g. 0.25 m has an increased drag coefficient of e.g. 2 due to disturbances from instrumentation, it gives a power loss of 1.13 kW which is minimal for a 4 MW rotor.