The reviewer#2 asked for a rejection of the paper. The main critic was that only 2 simulations were used to fit the model, and the same simulations were reused to estimate its performances.

To answer this, 6 new simulations were run with Meso-NH. This new dataset (called calibration dataset) has been used to calibrate the model, and the two LESs originally used have been used for the validation.

Due to such a major change, the paper have been consequently rebuilt, and we believe it answers all the reasons for rejection given by reviewer #2. A quick answer to them is given in blue in the following lines.

That nearly all choices are informed by comparing to a very limited number of unconverged LES results of an extremely small turbine makes it difficult to judge whether those choices are valid

Appendix of the companion paper showed that the data are converged

The operating conditions used to generate the LES dataset are too similar (CT, TI and tip speed ratio) to be able to extrapolate to any other conditions.

The new calibration dataset has different Ct and TI values

That this small dataset is then also used to judge how well the analytical model performs seems bizarre.

A new calibration dataset has been used so now the validation and calibration are performed on two different datasets

In this regard the authors should try to clarify the aim of the comparison and be more quantitative when judging the accuracy of their new model. From the current presentation it also seems difficult to discern whether there is an advantage from using this more complicated model.

Mentions to new applications that requires atmospheric stability have been added

It has more free parameters and therefore is likely to fit more closely in certain conditions, however it is thus also susceptible to overfitting, calling for using a large LES dataset in its calibration. Large open LES datasets that could be used for this purpose are nowadays widely available.

The authors agree, although the calibration requires the velocity and turbulence In the MFOR, which are usually not included in open datasets.

It would also be interesting to check the connection between stability, meandering, turbine size and boundary layer height and how they influence the envisioned model formulation.

The authors agree but it would require a lot of new LES simulations, which are expensive and time-consuming to run. Such study will hopefully be done in the future.