Interactive comment on "A control-oriented dynamic wind farm model: WFSim" *by* Sjoerd Boersma et al.

Anonymous Referee #1

Dear authors,

Thank you for this contribution. The paper is very thoroughly written and complete. I agree that the model fills an important functional requirement of dynamic model for use in control with a computational efficiency suitable for online applications. Further, the innovations for efficiently incorporating important 3D effects is important. The paper is of high quality and should be accepted.

My primary comment is on intended application. The author's don't mention power-increasing wind farm control. Is that deliberate, in that is model is being designed specifically for electrical grid service provision?

A second question is on the analysis presented, do I understand correctly that for the

PALM and SOWFA comparisons, identical Ct time series are played through the turbine models, effectively open loop? Is there no online estimation being applied? And if not, is the assumption that if such estimation, made possible by the model structure, remove any remaining error?

Interactive comment on Wind Energ. Sci. Discuss., https://doi.org/10.5194/wes-2017-44, 2017.