

Dear Editor,

We would like first to thank the Reviewers for the accurate and qualified observations. We truly appreciated the constructive criticism that made major improvements to the paper possible.

Based on their comments, an extensive revision of the work has been carried out. Our point-to-point responses have been highlighted in *blue-colored text* both in this communication and in the revised version of the paper. We really hope that this revised version can be now worthy of publication in *Wind Energy Science*.

Best regards,

Alessandro Bianchini on behalf of all the authors

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Reviewer 2

In the manuscript, the authors conduct a systematic comparison of engineering-fidelity models for a scaled floating wind turbine subject to a variety of platform motions. Models of various fidelity are compared with higher-fidelity approaches (some LES) as well as experimental measurements. Considered platform motions principally include surge, pitch, and yaw with some misaligned conditions also considered. The comparisons are comprehensive and will be a valuable resource to the community in guiding the selection of appropriate approaches. The basic conclusion is that FVM and ALM are capable of correctly predicting loads and the steady and unsteady wake responses under surge and pitch conditions. For yaw and misalignment, ALM is superior to FVM.

*The authors would like to thank the Reviewer for his/her careful evaluation of the manuscript and the constructive criticism. We have addressed all the comments you provided, and we have marked the changes in the manuscript in *blue*, providing a point-by-point response to all the Reviewer's questions (RC) in this document. Any reference to Sections, Figure or line numbers that have been included in this document do refer to the revised version of the manuscript. Our answers in this document (AC) have also been highlighted in *blue*.*

RC2: Not all of the figures are referenced in the text, and some of the figure references are incorrect.

AC: Thank you for your comment. We have extensively reviewed the manuscript and corrected any typographical errors.

2. The results are presented in a mix of dimension and non-dimensional units. Considering the scale, presenting results in non-dimensional form will aid in generalizing to full-scale conditions.

We agree that normalizing the main parameters would improve the generalization of the paper. We have modified the manuscript accordingly.