

Reply to the Associate editor:

The authors have addressed most of the reviewer's specific comments but I believe more could be done in the following areas:

Scope of the work: It is important right from the beginning that the authors make clear that this work is more of a qualitative study looking at changing VAWT design to improve performance and reduce noise and not an accurate study of the environmental noise impact of a VAWT.

Limitations of the model and the simulations: The authors need to state the limitations of the model and note that only one tip speed ratio scenario has been studied. Thus, it is difficult to draw firm conclusions from the results and further simulations are required.

Future work: I believe the authors could expand on this area.

To this end I have made some edits and comments in the attached file.

Reply: We have made comprehensive revisions in the revised paper based on the associate editor's suggestions, including Scope of the work, Limitations of the model and the simulations, Future work, and some edits and comments in the attached file. We deeply appreciate the assistance and valuable suggestions.