

The revised manuscript is well presented and well structured. The authors response covers all doubts and questions raised, and appropriate changes have been applied to the manuscript. However, I still have some minor scientific and technical comments which you can find here below.

Scientific comments/questions

1. Line 280: the authors mention that “The cells in between will be displaced between zero and η depending on their distance from the wall”. However, to my understanding, the vertical cells are not only displaced but also stretched to account for the changes in the vertical domain height (which depend on η). Is this correct?
2. Line 444-461: I would suggest expressing the differences in pressure between the various cases in percentage since stating “small pressure deviation” or “large differences” can be subjective. I would suggest to apply this change throughout the manuscript, where possible.
3. Line 470: note that a difference of 5% in terms of velocity causes a difference in power output of 15%, which is substantial.
4. Figure 6: it could be useful to also include the relative error, as done for Figure 5.
5. I would suggest changing the title of Section 4.2. Here, the authors do not show results about the rigid lid approximation but rather compare these results to the ones obtained under different types of thermal stratification.
6. Figure 9: it is shown that the rigid lid case has a higher wind farm efficiency than the truly neutral case. Which mechanism is responsible for this behaviour? Could it be that the flow speed-up over the farm (if present) in the rigid lid case enhances vertical mixing and therefore wake recovery?
7. A somewhat similar analysis to the one presented in Figure 9/10/11 has been performed by Allaerts and Meyers (2019) and Lanzilao and Meyers (2024). It would be interesting if the authors could relate their findings to the ones described in the articles mentioned above, when possible.

Technical comments

1. Line 45: error in reference style (\backslash cite $\{$ -> \backslash citep $\{$)
2. Line 304: untested -> has not been tested
3. Line 314: remove “used to compute η ”
4. Line 656: it could be more intuitive to express the time in hours instead of seconds
5. Line 665: replace with “the geostrophic wind is not known a priori and it has to be retrieved by..”
6. Table 3: I would suggest replacing N1 and N2 with subcritical and supercritical, respectively.
7. Table A1: in the caption, change u_{\ast} to u_{\ast}