

We wish to thank both reviewers for their feedback during this process. It has improved the paper. Reviewer 1 had no further comments on the revised manuscript. Reviewer 2 had a few comments. The following is our response to these comments.

Reviewer 2

The authors have made a major revision, addressing most of my previous comments adequately. I have only a few additional minor comments:

1. I appreciate that the authors have explained in detail about their view on "blockage" and "induction" in the response letter, including an example of the use of the term "blockage" in the context of axial compressor aerodynamics. I still think that some wind turbine aerodynamicists would disagree with the use of the term "blockage" in this paper, but I agree that the preference on whether it should be called "blockage" or "induction" would depend on the background of the reader.

2. The only remaining point that I still cannot agree on, is that the authors seem to deny the use of the term "induction" for wind farm-scale flows. In the response letter, the authors stated that the term "induction" was "almost exclusively used in the context of an individual rotor" in the past, but the concept of "wind farm induction" has been used in the literature more widely than the authors claim (for example, in the two-scale momentum theory of wind farm flows: <https://doi.org/10.1017/jfm.2020.252>; <https://doi.org/10.1017/flo.2026.10047>). I think this point should be noted in the paper.

We were not clear enough here in our response. We do not deny that the word induction is used in the description of wind-farm-scale flows. When we wrote in the previous response that the term "induction" was almost exclusively used in the context of an individual rotor, we were just describing the background of how in 2017 I came to prefer the term "blockage" over "induction". We agree that since then a number of papers have been published that use the word "induction" in the context of wind farm flows. To avoid any further confusion regarding our definition of induction, or any of the other blockage-related definitions in the paper, we have added the following text to the end of the definitions paragraph in the revised manuscript:

The definitions above reflect how the terms are used in this paper and are not intended to imply a universally accepted standard for blockage-related terminology. In the broader literature, the term "induction," to take one example, is sometimes used to refer to a wind-farm-scale effect (e.g., Nishino and Dunstan, 2020); here, however, it refers exclusively to the effect of an individual turbine on wind speed upstream.

The Nishino and Dunstan reference has now been added. To prevent this addition from causing the Reference section to spill over onto the next page, which would effectively set off a cascade of additional redlines in the revised manuscript, we abbreviated “January” as “Jan.” in one citation in order to shorten the citation to one line.

3. The new Fig. 19(a) shows the positions of the turbines “that were also simulated in isolation”, but the light blue dots are difficult to see here (as the colour is similar to the background colour). I would suggest using a different colour, such as red.

We tried a number of different colors. Red and magenta did not stand out as much as I had hoped because these colors did not provide enough contrast with the small black dots representing the rest of the turbines. I also tried lighter reds and pinks, but they did not offer enough contrast with the elevation map. Yellow and light blue seemed to work best. We decided to stick with light blue while increasing the symbol size 20%. As a result, the turbines simulated in isolation stand out more in the plot than they did before. In our judgment, it should be fairly straightforward now for the reader to identify the highlighted turbines in Figure 19 in the revised manuscript. We concede that in the redlined PDF, where Figure 19 is smaller, it is difficult to identify one of the highlighted turbines. The situation is better in the clean PDF. It is much better in the source Word document and especially in the high-resolution image for Figure 19 that will be uploaded with the final submission.

4. I appreciate that the authors have added a control volume analysis in the Appendix, which is very helpful.

Additional changes:

- A) We changed the symbol representing Froude number from F to Fr because F is used to represent forces on the control volume in the Appendix.

$$Fr = \frac{\bar{u}_{BL}}{\sqrt{g' h_{inv}}} \quad (1)$$

- B) A typo was corrected in the last reference.