Review of "Changing the rotational direction of a wind turbine under veering inflow: A parameter study"

General comments

The authors have improved the manuscript significantly compared to the previous submission. The slightly narrowed focus of the paper, which is investigated in more detailed, is still a very compelling research question. The additional figures in the result section helped a lot to better understand the effects on the wake structure, which was my main issue with the previous manuscript. The new analysis with the simple model and its comparison to the simulations is insightful for the interactions between the wind veer and the rotational direction. The revised and more conservative conclusions are better supported by the results compared to the previous iteration. I am not qualified to evaluate, if the technical aspects of the LES highlighted by the first and third reviewer have been sufficiently addressed. This time, I have only some minor comments detailed below.

Minor comments

In Eq. (15) and (16) the ϑ, and in Eq. (17) x_{WT} and and x_{ξ} are not introduced.

Page 8, lines 2-3: An addition to this sentence, that the simple model demonstrates the principle interactions between an idealized wake represented by a vortex and several inflow configurations, and that it will be compared with previously introduced LES at a later point would inform the reader on the section's intention.

Page 12, lines 7-10 (also relevant for abstract and conclusions): The term wake deflection is also often used to describe a horizontal displacement of the whole wake in case of a wind turbine operating with a yaw offset. Here, wake deflection is used to describe the displacement of a part of the wake relative to the wind direction at hub height (other literature coined this a skewed wake – e.g. Abkar and Porté-Agel, 2016). A sentence that clarifies the usage of wake deflection in this paper or changing the term could avoid possible misunderstandings.

Page 19, lines 4-10: It might be beyond the scope of this parameter study, but for possible future studies, it would be interesting to investigate if the increased $\bar{u}_A$ for a veering wind and a CCR rotor holds for all possible locations of a hypothetical downstream turbine. The one-sided minima of the streamwise velocity in Fig. 6(b) and Fig. 6(d) that is just outside of the rotor area might (or might not) be canceling the positive effect on $\bar{u}_A$ and that could provide insights into the robustness of possible improvement for a hypothetical downstream turbine.

Page 32, lines 32: A similar comparison to Fig. 19 for the left/right sectors from Fig. 1 would be expected at this point. If nothing interesting was learned from it, it could be mentioned in a short sentence.

Fig. 20: The schematic illustration seem to be representative of a height away from hub height due to the wake deflection. Is it correct to assume that a similar schematic illustration for the hub height would have ϵ and $\Delta\epsilon$ equal to zero and the two ΔL_y would be symmetric?

Technical comments

Page 1, line 4: I believe "the" is missing before "wind veer".

Page 1, line 9: I believe "inflows" should be "inflow's".

Equation (6), (8), (15), (16), and (17): The cos, sin, exp, and tan functions should be written in upright font.

Page 35, line 1: I believe is should be “…has been observed in several…” instead of “…has be observed with…”.