

Wind Energ. Sci. Discuss., referee comment RC1
<https://doi.org/10.5194/wes-2022-25-RC1>, 2022
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Comment on wes-2022-25

Anonymous Referee #1

Referee comment on "FarmConnors market showcase results: wind farm flow control considering electricity prices" by Konstanze Kölle et al., Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2022-25-RC1>, 2022

This paper presents an interesting study wherein different participants model the benefits of turbine or farm control in a market context and compare the impact both on energy production as well as expected revenue. I think it is a really useful exercise, to see these comparisons made in an open-access journal, and using separate research departments, models and controllers adds a degree of internal variation that is really helpful in assessing how particular the results are to any specific set of assumptions.

Reading the paper I didn't identify too much to criticize. I therefore have just a general comments.

My main thought was that some of the comparisons might benefit from some extra context. In the case of energy gain, I was interested to see (and apologies if I simply missed it) some information on how each model predicts the overall starting wake losses for the two farm types. In other words the percentage difference in AEP for the farm with and without wakes.

Then for additional context on the revenue side, what would be the overall initial expected revenue of the farm. What I would be very curious to see if it would be possible would be table where each case study (P2-P5) is a row with columns like: annual revenue, delta revenue, annual profit (if it were possible to assume some cost model), expected delta profit. Was just wanted to see a rough gauge on the significance in these changes in revenue.

Finally, I had a question on comparing the EUR in 2020 versus 2030. I'm not an expert in economics, but was wondering, is there a need to control the value of the EUR between these 10 years, so that both are expressed in 2020 EUR or similar?