

# Response to reviewers

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October 2020

## 1 General comment to reviewer # 1

We would like to express our gratitude to referee #1 for his/hers time and effort revising our manuscript. Please see our response to the comments below.

## 2 Response to minor comments from reviewer # 1

**RC1:** Page 3 – Line 69: “exploratory study” → I suggest to remove the word “exploratory”.

**AC1::** Done

**RC2:** Page 3 – Line 77 (also in the comment) : Observations with a wind speed tendency  $\delta u/\delta t \geq 15 \text{ ms}^{-1}$  → The unit is  $\text{m/s}^2$  not  $\text{m/s}$

**AC2:** Thanks for pointing this out. I have now changes the unit to  $\text{ms}^{-2}$ .

**RC3:**Page 5 – Setting  $z_2$  to be the ...  $z_1$  to be the → That sounds linguistically strange to me (not a native speaker). How about: In our study  $z_2$  is the hub height of 100m.a.s.l and  $z_1$  is the height of the wind sensors and  $\alpha$  is 0.12. This way we obtain the ...

**AC3:** I agree - thanks. I have now rewritten the sentence in the following way: *In our study  $z_2$  is the hub height of 100 m.a.s.l and  $z_1$  is the height of the wind sensors and  $\alpha = 0.12$ . This way we obtain the extrapolated wind speeds at the hub height for each site.*

**RC4:** Page 8 – Line 150 ... fall between  $4 < u \leq 25$ ... → Unit is missing here. The same is true one line below.

**AC4:** Done.

**RC5:** Page 12 – Line 237: to exceed approx. 600km → Space between number and unit.

**AC5:** Done.

**RC6:** Page 15 – of at least 25% → Add space between number and unit

**AC6:** Done.

**RC7:** Page 20 – Line 359 ... on the background flow (ref) → The reference is missing here.

**AC7:** I have now added the correct references.

**RC8:** Page 27 – Line 484-86: This research paper with he working title...  
→ This is a very long sentence, please consider rewriting by e.g. removing the title of the manuscript. Also the “you reduce” sounds very colloquial to me. However, I am not a native speaker.

**AC8:** The sentence is now rewritten as follows: *This research paper has first of all showed that by connecting wind power production sites the unwanted events like intermittency and zero-events are reduced.*

**RC9:** Figure 6: demonstrate how IQR and RCoV change... → I suggest to spell out IQR and RCoV out here once again as this helps reading the figure independently of the paper.

**AC9:** Done.

**RC10:**Figure 8: pair-vise → I guess you mean: pairwise

**AC10:** Thanks. Done.

**RC11:** Figure 10: Please add a space between number and unit in the figure title

**AC11:** Done.

**RC12:** Figure 11 and 12: The figure panels are quite small and a lot of space is wasted due to large white margins. That should be improved in the final manuscript.

**AC12:** Done.

**RC13:** Tables 4 and 5: The captions are overlapping with the table content. In general the table captions should be above the table.

**AC13:** Thanks for pointing this out. I have now moved all the Table caption above the tables.