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Interactive comment on "Axial induction controller field test at Sedini wind farm" *by* Ervin A. Bossanyi and Renzo Ruisi

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Thank you for the useful and relevant comments. I would like to respond as follows:

1) Ideally we would indeed increase the minimum acceptable number of points per bin, as you suggest. The problem here, because we have a very limited amount of data, is that when binning by both wind speed and direction, the number of points per bin is very small, and if we increase the threshold number of points, we accept even fewer bins. This might give more confidence in the calculated increase, but it also changes its meaning since the range of wind conditions covered will be different. The mean increase over those bins for which we happen to have enough data is not a particularly meaningful number anyway – an estimate of the annual average increase would be

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more interesting, but clearly we don't have enough data to fill all the bins which would be needed for this. We preferred to simply present the data as is, including the points per bin, and we hope you agree that the words in the conclusions of the paper give a fair assessment of the outcome of the experiment.

2) You are right that in addition to the small number of points in the bin, TI variations may help to explain the implausibly large increase in that one bin. Thank you for noticing that – we propose to add a comment to that effect. Your suggestion to extend figure 14 is also a good one – we can show the mean TI for the ON and OFF cases for each bin.

3) You also ask about the meaning of the setpoint values in figure 7. The setpoint ranges from level 0 (normal operation) to level 10 (maximum power reduction). For each level, the power reduction is not fixed but depends on the wind speed, having no effect in low and high winds. Details of the algorithm used to reduce the power were not provided by the manufacturer for reasons of confidentiality, but the maximum reduction does not exceed 20% of rated power.

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