

# ***Interactive comment on “The Tall Tower Dataset. A unique initiative to boost wind energy research”***

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AC.0) Authors want to thank the reviewer for his/her comments, suggestions and thoughts on the paper. Responses to the reviewer's comments are described in detail below in blue colour. These reviews will be addressed accordingly when submitting the revised paper.

RC.1) The manuscript presents the wind data of 222 tall towers, of which 181 are made publicly available. This is a very valuable dataset, which is well described, with a large emphasis on data quality control.

AC.1) Authors would like to acknowledge the positive appreciation of this work.

RC.2) Please add the height of the tower, the number of measuring levels, and the



timestamp sampling (10min, hourly, gusts) to table S1 (switch the table to landscape)

AC.2) This information will be added to table S1.

RC.3) Please also add these items to the 0-INDEX\_public.csv file.

AC.3) 0-INDEX\_public.csv file will be modified accordingly.

RC.4) The end date of S1 is not always correct; e.g. Cabauw (NL) is said to have ended in 2017, whereas it is still operational. It should be advantageous if it is indicated which towers are still operational.

AC.4) Thank you for noting this. We agree that adding this information is useful. The information on which towers are operational –according to tower station website, metadata, and data provider– will be added to table S1.

RC.5) some datasets (e.g. Cabauw (NL)) are not in the dataset, although the data is freely downloadable (after login). Maybe a link can be given to the place where these data can be downloaded?

AC.5) This information can be encountered within the NetCDF files in which the data is presented. A global attribute ('links') indicates the tower station reference website.

Besides this, we are currently preparing a website to disseminate this dataset further, which is not finished yet. Links to original tower databases will also be provided there. We aim to include the location of this website in the revised version of our manuscript.

RC.6) Page 5, line 12. Maybe the increased use of lidars instead of met masts is another reason for the decrease after 2017?

AC.6) This is indeed a very interesting observation. However, we believe that the sudden decrease in the number of data is unlikely to have been produced by a sudden increase in the number of lidars. We observe the decrease in data in all the stations at a specific date. Even supposing that tower responsible were to replace tall towers by lidars after a specific date, they may have to maintain tall tower measurements par-

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alley for a while as a reference for assessing the difference between lidar data (e.g., possible biases).

During the data retrieval conducted during 2017 and the first half of 2018, we contacted several data providers. Some of them mentioned that the most recent data are not usually released because they prefer to perform first some QC tests to detect possible gross errors, so that we believe this is the main reason that explains the decay in the number of data after 2017.

On the other hand, we realised that no information on the increase of lidars to measure atmospheric profiles had been mentioned in the introduction section. We will add some notes on this.

RC.7) At least at a part of the towers maximum gusts will be measured as well. Addition of these gust observations to the dataset would be of great value.

AC.7) We agree that information on gusts is valuable for many studies. However, only 22% of the towers provide this information along with the wind averaged values. We will consider including this information in the future. QC checks have not been prepared for gusts. This would need specific methods that have not been investigated here yet.

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