

Wind Energ. Sci. Discuss., community comment CC1
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Comment on wes-2022-34

Lindsay Sheridan

Community comment on "Current status and grand challenges for small wind turbine technology" by Alessandro Bianchini et al., Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2022-34-CC1>, 2022

The manuscript presents a comprehensive examination of the current worldwide status of small wind turbine design and deployment. Five grand challenges that the small wind community needs to overcome in order to become widely viable, accepted, and competitive are identified and recommendations on how to address such challenges are provided.

The work is timely, well-researched, and needed. I appreciate the comprehensiveness of the paper, focusing on the worldwide small wind market instead of one country or continent and considering details ranging from resource assessment to turbine design to community acceptance. The following minor considerations are recommended for the final version.

Line 37: Suggest replacing "within" with "for".

Figure 1: This graphic is very helpful. I recommend increasing the hub height for the business or community category from "up to 65" as many distributed wind projects feature hub heights of 80 m or even higher.

Line 89: It makes sense to exclude urban wind in this analysis, but I am curious as to what thresholds (population, quantity of buildings) you employed to designate urban versus non-urban.

Line 184: I am confused by this sentence about trends being stopped or reversed, and wonder if 5 kW is intended instead of 50 kW?

Line 611: It would be helpful to refine "an error greater than 1%". Is the error just a little bit over 1%? Or much higher?

Line 666: Suggest rewording to something like "Improve prediction and reliability of long-term turbine performance despite limited resource measurements".

Line 928: In this paragraph, the order of reporting costs in euros and U.S. dollars is inconsistent. It would help the reader if a consistent convention was applied here, with one currency always reported first and the other always reported in parentheses.