

Wind Energ. Sci. Discuss., referee comment RC1
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Comment on wes-2022-66

Anonymous Referee #1

Referee comment on "Grand Challenges: wind energy research needs for a global energy transition" by Paul Veers et al., Wind Energ. Sci. Discuss.,
<https://doi.org/10.5194/wes-2022-66-RC1>, 2022

The manuscript entitled « Grand Challenges: Wind energy research needs for a global energy transition” is an introductory letter to a series of articles dedicated to the grand challenges that the wind energy scientific community need to tackle to ensure that the wind energy deployment will reach the targeted level world-wide in the next decades. The context, the genesis and the relevance of this initiative are explained in a very clear and convincing way. The list of the ten articles (some are already published, some are still under review or preparation), completed with a short abstract, is given.

A few minor revisions are needed still:

- Lines 39-40: “Clearly, wind will be a foundational energy source in the electricity grid at the heart of a future integrated-energy system, replacing traditional electricity generators powered by fossil fuels and synchronous machines and providing grid-reliability services in addition to energy (Hodge et al., 2020; Holttinen et al., 2020).” The mention to “synchronous machines” seems a bit too specific/technical here compared to the other more general aspects (electricity generators without fossil fuels and grid-reliability services). It is difficult to understand, without reading the dedicated article, what are the limitations of the synchronous machines.
- Lines 49-50: why not using exactly the same sentence as highlighted below : “every data point showing the speed of change in energy can be countered by another showing the stubbornness of the status quo”?
- The link towards the list of publications on the EAWC website is not working <https://eawe.eu/organisation/committees/publications-committee/>
- From line 110: for each article, add its current status (published + citation, submitted, under preparation...)