Wind Energ. Sci. Discuss., author comment AC1
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Reply on RC1

William J. Shaw et al.

Author comment on "Scientific challenges to characterizing the wind resource in the marine atmospheric boundary layer" by William J. Shaw et al., Wind Energ. Sci. Discuss., https://doi.org/10.5194/wes-2021-156-AC1, 2022

We appreciate the encouraging review provided by Dr. Emeis.

He first noted that the paper draws illustrations and perspective from conditions found around America. We acknowledge that this is the case as we stated at the outset of the paper. We felt that this approach was justified because, as the paper notes, there are several features involving western boundary currents and deep ocean upwelling that extend the challenges addressed by the substantial body of work already carried out in Europe.

Dr. Emeis second noted that wind farm parameterizations were not addressed. This was not an oversight. This paper is one of ten that are submitted or are nearing submission to Wind Energy Science that as a group will substantially expand the concepts in

Veers, P., Dykes K., Lantz, E., et al.: Grand challenges in the science of wind energy, Science, doi:10.1126/science.aau2027, 2019.

One of those papers, which is nearing submission, focuses specifically on the interactions of wind plants with the boundary layer and on wind farm parameterizations. Since it is not yet submitted, we cannot explicitly cite it. We will consult with the WES editor regarding whether to mention this in our manuscript.