

Responses to final comments from the Associated Editor

WES-2025-172

Dear Associate Editor Dr Julie Lundquist,

Thank you very much for your rigour in reviewing our work.

Below, we respond to your comment.

Requested correction:

Thank you for incorporating the suggested references that acknowledge recent wind resource assessment databases incorporate finer resolution that are in fact convection-resolving. However, by using “In contrast,” the phrasing of the revised text implies that these other datasets are not convection-resolving: *“recent operational datasets have adopted similar fine-scale resolutions (2–3 km grid spacing), including the Global Wind Atlas (Davis et al., 2023), the Wind Toolkit for the continental United States (Draxl et al., 2015), and the offshore-focused NOW-23 dataset (Bodini et al., 2024). In contrast, Convection-Permitting Models (CPMs) provide high-resolution simulations with grid spacing ≤ 4 km, in which deep convection is explicitly resolved rather than parameterized.”* There are no deep convection parameterizations used in the GWA, the WTK, or NOW-23, so implying that there are, with “In contrast”, is misleading to readers. Please revise the text to acknowledge that these other datasets also permitted deep convection, perhaps simply by removing “In contrast.”

R//: The editor is correct in pointing out that the referenced datasets have cluster parameterisation disabled and therefore allow for the resolution of convection at those horizontal grid spacings. We have followed the editor’s suggestion by removing the phrase “*In contrast*” as a connector within the paragraph on [line 35](#), to follow the logical flow of the paragraph’s main idea.

We would like to reiterate our thanks for your careful review.