

We would like to thank the Reviewer for the thorough review of the work done, which considerably improved the report and helped to steer the directions of subsequent work.

a) In Figure 3, what are the units of wind shear and how was it computed? The 30-m height wind speed for Tonopah appears very suspect. I would anticipate that something is causing this specific sensor to read too low. Also, you shouldn't place too much confidence in shears measured over small height intervals such 10m. Any slight errors in the wind speed can cause dramatic errors in the wind shear estimates for these thin layers. In my opinion, you should examine shears over layers that are at least 20m depth. This relates also to subsequent figures.

We fully agree that this information is missing in the report. Wind shear was calculated as $100 \cdot \partial V / \partial z$, thus unit of wind shear is 1/s scaled with a factor of 100. We added description of wind shear calculation to the report (page 3., paragraph 2) and modified captions and x-axis labels in Fig. 3.

We agree that the 30-m height wind speed for Tonopah appears unexpected. For this reason, we performed the correlation test (page 4, paragraphs 2 and 3). However, we recognize the reviewer's concern and acknowledge that although the correlation test does not point to any deficiencies with the sensor, it does not guarantee its proper operation. We've added discussion about this to the report (page 4, paragraphs 2 and 3).

Finally, we examined wind shear presented on Figs.3 over layers that are 20 m deep and added new figures and discussed differences (Figs 3, 4, 5, text on pages 4 and 5). We appreciate the reviewers point, and it would be interesting to see what the differences in the shear computation are with respect to the vertical separation and could they be meaningfully normalized by the overall 10-50 m shear?

b) In Figure 4 (also relates to Figure 3 and subsequent figures), there is not much value in evaluating shears at very low wind speeds. Turbines don't operate below wind speeds of about 4 m/s, and the shear doesn't matter. Shears in very low layers below the bottom of the rotor don't matter. That's why, for wind energy assessment, we typically only evaluate the wind shears for heights above about 30-40m and wind speeds above about 4 m/s. However, sometimes we also examine shears over lower layers to help understand boundary effects due to roughness and terrain etc."

We appreciate the reviewers comment and reflect the reviewer's point of view in the report (page 3. paragraph 2). We will incorporate reviewers suggestion in the subsequent analysis.