We thank Prof. Arnquist for his detailed and constructive comments.

Line 24 (now 25) – Misspelling was corrected.

Figure 2 – While the suggested modification could enhance the figure, we do not think that it is an essential detail for the general information that the figure conveys.

Line 109 (line 118) – Misspelling was corrected.

Line 110 (now 117) – Here and in other instances the word “destroy” was replaced with “suppress” which is more precise than suggested “prevent,” since buoyancy actively suppresses turbulence advected from another location.

Figure 3. c) – The figure is from Kalverla et al. (2017) and we cannot modify it. The scale is likely because convective cases ($Ri_b > 0$) are relatively weak.

Line 270 (now 367) – The statement about the spectral analysis by Sim et al. (2023) was improved.

Line 364 (now 816) – The paragraph was moved to the section “Impacts of Certain Atmospheric Phenomena,” subsection “Low-level Jets” and references to Emeis (2014)

Line 366 (now 822) – The statement about the sodar observations is modified as suggested and now reads as:

“Towers typically only reach 100-200 m, and frequently sodars are ineffective in the layer near the LLJ nose due to the lack of shear produced turbulence.”

Line 370 (now 448) – The statement was modified and references added and now it reads as follows:

“Several attempts to analyze spectral features associated with LLJ structure and relate them to spectra observed in canonical stably-stratified ABLs without a jet (Kaimal 1973) did not result in consistent findings. While Smedman (2004) and Hallgren (2022) found that low frequencies of the streamwise velocity spectra associated with LLJs are suppressed, however, these results are not consistent with some other studies (Duarte 2012).”

Line 376 (now 457) – While in atmospheric sciences terminology “convection” implies unstable conditions we have modified the preceding sentence to make this clearer:

“Significant differences in temperature and humidity between relatively warmer sea surface and colder overlying air, combined with large wind shear, can result in helical roll vortices (Lemone.1973).”

Line 500 (now 582) – Mann (2017) reference was added.

Line 558 (now 660) – The acronym IEC was corrected.

Line 713 (now 840) – Misspelling was corrected.

Line 905 (now 1032 and 1034) – Mirocha et al. (2018, WES) and Sim et al. (2023, Sci. Reports) were added to support the statements.

Line 983 (now 1142) – As suggested the difference between turbulence magnitude and intensity was pointed out as follows:

“Here, we point that the turbulence magnitude defined by Equation (3) may stay constant through the row of wind turbines, while the intensity of turbulence, a non-dimensional value, would increase because the wind speed in the wake may decrease.”