Limberger et al. use numerical models to simulate the effect of wind-turbine generated noise on seismic stations installed in boreholes. In particular, they model the Landau region geology and nearby wind farms to validate their results against existing measurements from Zieger and Ritter (2018). The study is well structured and the effect of wind turbine noise is systematically analysed for different sensor depths, geological layering and associated seismic velocities, and damping parameters of the subsurface, requiring minor revision. However, I am missing some explanation on the authors' choices of the input and presented results in several parts of the manuscript. Also, by giving recommendations on how to apply the model for designing new borehole stations in existing settings, where seismic monitoring is necessary and wind farms are present. These suggested changes would make the study more practical and give the work more impact. For example, this could be addressed i) by stating the performance of the modelling in the more complex Landau setting and ii) by showing which settings (number of layers, dimensions, etc) can be simulated and which not. Also, it would be nice to show for which borehole depth the gain of placing borehole sensors is highest.

l. 57: The authors should describe in more detail why this source signal was chosen. In particular, is this an average signal of WT noise due to strong winds or a specific tower height? What controls the frequency content? This could be explained with respect to the presented results of Zieger and Ritter (2018), that classify strong versus weak noise conditions.

l. 158ff: This section is a theoretical approach but not very useful. It would be much more applicable if a more realistic attenuation could be modelled, as shown e.g. by Bethmann et al. (2012) https://doi.org/10.1111/j.1365-246X.2012.05555.x or a gradient rather than just 2 layers with constant values. Attenuation is important to consider in the analysis but should not be too simplified. This is similar to my suggestion of stating the complexity of settings that could still be simulated with the model and should be included in the discussion.

l. 258: Maybe a similar figure as Fig 2 of Prevedel et al. (2015) https://doi.org/10.1007/s00531-015-1147-5 could be attempted basyed on the modelling results of wind turbine noise.

4 Discussion and conclusions:
How difficult would it be to include other measures in the modelling (e.g. trenches as given by FA Wind (2021), Minderung seismischer Wellen von Windenergieanlagen. Strukturelle Maßnahmen auf dem Wellenweg.)?

As the authors state themselves the study would benefit from more data for validation.

Minor comments:
l. 54 of the complete wavefield

Fig. 2: The red line in Fig. 2 requires a more detailed description and explanation in the text. Should the red labelling be displayed on the vertical axis? What controls the amplitudes of the synthetic traces? Are the relative amplitudes normalised to the input signal? Please explain better the meaning of this figure.

Fig 5: Show the reference values from Model 4 (e.g. black line in Fig 4 d) by dashed lines in this figure.