

Wind Energ. Sci. Discuss., referee comment RC3
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Comment on wes-2021-108

Anonymous Referee #3

Referee comment on "Fast yaw optimization for wind plant wake steering using Boolean yaw angles" by Andrew P. J. Stanley et al., Wind Energ. Sci. Discuss.,
<https://doi.org/10.5194/wes-2021-108-RC3>, 2022

Thank you for the interesting article. I think it is well written and the topic is clearly explained.

Some minor suggested points could improve it:

Line 22: 'models' to be substituted by 'experiments' (models can be also numerical, like yours)

Line 71: written that FLORIS has been used for wind plant layout optimization research. Add references.

Lines 129 to 131: I think the sentence "For all of the results in this section, the freestream wind speed was set at 10 m/s, which is below the rated wind speed of the wind turbine we used. Past studies have shown wake steering to be most effective below the rated wind speed." belongs to ch. 2, so I would move it to the end of this chapter.

Two comments on the same sentence: 1. Explicit that the freestream wind is assumed uniform; 2. 'Past studies', give the references.

Line 142: the performances decrease after a pick. Please comment why, in the text.

Two general comments on the multiple figures: 1. I think it would be better to add a), b),

c)...on the subfigures, making it easier to refer to them in the text (instead of 'top left subfigure' it becomes 'Fig. 3a'). That might not be needed for all the multiple figures, but only those subfigures you need to refer to in the text (e.g. Fig. 5 is ok as it is). 2. I think the title at the top of the figure is distracting (ex. Fig. 4 '50 turbines in-line: varied turbine spacing'); if needed move it to the caption.

Overall, good job!