Wind Energ. Sci. Discuss., referee comment RC2
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Comment on wes-2021-121

Anonymous Referee #2

Referee comment on "Analysing the effectiveness of different offshore maintenance base options for floating wind farms" by Nadezda Avanessova et al., Wind Energ. Sci. Discuss., https://doi.org/10.5194/wes-2021-121-RC2, 2021

This study compares two possible solutions for maintenance of offshore floating wind farms (OWFs), i.e. the employment of Service Offshore Vessels (SOVs) or so called Offshore Maintenance Bases (OMBs) that are fixed bases from which Crew Transfer Vessels (CTVs) can operate. The study was executed using an inhouse solution, called COMPASS, an imaginary floating OWF, recorded weather data (ERA5/20), and assumptions on costs and operation limits taken from literature. The main result of this work is the conclusion that, for the chosen configuration and setup, SOV-based solutions are preferable against OMBs.

The study is very well organized and has been executed systematically. Methodology and results are well presented and discussed. The fact that a non-publicly available software (COMPASS) has been used, is a certain drawback that is (partially) compensated with a description of its actual functionality.

There are some minor aspects that should be dealt with before publication:

- Authors should discuss the limited type of maintenance tasks, e.g. the electric system is not represented at all
- Authors should discuss the sensitivity of the results against SOV and maintenance costs
- Authors should discuss the sensitivity to the discount rate
- The storage capabilities for spare parts of SOV and OMB should be discussed
- Authors should revise the use of commas