

General comments:

The authors have overall well addressed the reviewer's comments and provided valuable answers. There are just some minor comments and recommendations left for further improvement of the paper to high quality.

Specific comments:

- Please use a clear term for calling your semi-submersible platform type. For example, "three column semi-submersible platform" is misleading, since you consider semi-submersibles with four columns, of which three are forming the edges of a triangle and the central fourth is supporting the turbine.
In this context, it would make sense to adjust the phrasing in Section 4.7 (line 535) as well, as you have already considered a semi-submersible with four columns but you may want to address a semi-submersible with four columns forming a square.
- Further comments on assuming constant values:
 - o Keeping the wall thickness constant
 - The added sentences "Please recall that the wall thickness is 4.5 cm based on the IEA design, in contrast to the 6 cm wall thickness of the OC4 design. The platform mass results would be significantly different if a larger wall thickness was used." in lines 331-333 (section 4.1 on the OC4 Platform Upscaling Results – and not on the IEA design) rather fit to line 356 in 4.2 on the IEA Platform Upscaling Results. Please move/adjust.
 - The sentence "The platform mass results would be significantly different if a larger wall thickness was used." in lines 332/333 might be adjusted by adding, for example, "... if required for structural integrity reasons".
 - Please add (in both cases) a reference to section 4.5, where you address the influence of the wall thickness on the platform steel mass in more detail.
 - Please mention the relevance of structural integrity. Even this is out of the scope of your study, this should be highlighted that this needs to be considered carefully in the next research work and for more detailed design approaches.
 - o Regarding the constant value for the gap between bottom of rotor plane and water line, I fully agree that taking a value of 30 m which is common for offshore wind turbines is a reasonable approach. My only concern is that this value accounts for sufficient clearance wrt extreme waves but not specifically for an additionally reduced gap due to any heave motion of a floating wind turbine system – i.e. in a bad circumstance, the wind turbine might just have a negative heave motion (and maybe some additional pitch) when a huge wave crest is hitting the structure. If you – as you are writing – agree that it would be valuable to include the heave motion in the next iteration, maybe you can just point it out as recommendation. There might not be the need to have the heave motion as a direct "design" parameter, however, it should be at least checked at the end, how the upscaled system performs in this degree of freedom.
- Chapter 3 (Methodology):
 - o Please include your explanation and reasoning for using the root finding approach just as you explain it in your answers also in the paper (e.g. in 3.4). This is really valuable to understand the advantages and your intention for using this approach.

- Please add the information (and reference to the recommended practice) you provide in your answers on the pitch natural period and predominant wave period as well in the paper, e.g. in line 284.
- Chapter 4 (Results and Discussion)
 - For the reader it would be easier to understand where you get the numbers from, if you could include references to tables 10 and 9 in lines 370 and 371, respectively.
 - Please correct the numbers for the OC4 platform steel mass scaling, as you have written $R^{1.3}$ in Section 4.1 (line 335), Section 4.3 (line 380), and Section 4.5 (line 438), but $R^{1.2}$ in Section 4.3 (line 372).
 - For reasons of clarity, please mention that the added numbers (highlighted text) in lines 412 to 416 refer to the 10 MW upscaled designs (and not to the 7.5 MW ones).
 - Please add in line 414 to complete the sentence: “..., and then scaling is adjusted separately for the main column and the upper columns.”
 - Please add some final resume to the second sensitivity study (4.6.2).
 - Thanks for adding the discussion section 4.7. I would highly recommend to add there also the shortcomings you have found and partially already addressed beforehand, as well as some outlook on the next steps and future research. You might use some of the detailed elaboration in the last paragraph of the conclusion and then reduce the outlook then in the conclusion itself.

Technical corrections:

- References: Please make sure that the new reference (Leimeister, 2016) is used at the right places, i.e. in contrast to the reference (Leimeister et al., 2016) which does not cover the upscaling to the 10 MW wind turbine.
 - Thus, in lines 399/400, the reference (Leimeister, 2016) would need to be added.
 - The intext citation in line 4.13 needs to be corrected to just Leimeister (i.e. remove “et al.”) to match the correctly used reference (Leimeister, 2016).
 - And please add the 10 MW upscaling application (Leimeister, 2016) as well in section 2 (line 99).
- Please check again throughout the entire paper (both within the text and tables as well as equations) that all mathematical parameters are written in math environment/formula style and that this is also only done for mathematical parameters and not also for abbreviations (e.g. RNA). For example, there are parameters not yet in math environment in Equations 1 (R), 2 - 5, 7, Tables 2, 5, 9 - 16, and line 497 (EA).
- Some equations could still be further simplified by removing brackets that are not needed, e.g. Equations 2, 4, 5, 8, 11.
- Please ensure throughout the paper, that the same table style is applied, i.e. in some tables the header is bold in others not, and other tables do not have a header at all.
- Abstract, line 8: For reasons of consistency, it might be worth updating the modern wind turbine rating number to 18 MW (instead of 14 MW) as well.
- Please introduce the abbreviation “NREL” when mentioning the full name in line 133.
- Please ensure that numbers and the corresponding unit are kept together and not separated over two lines (as, for example, in lines 174/175). However, this might change again when the final format is applied.
- Line 179: I think that, based on the journal’s guidelines, “section 4.6.1” should rather start with a capital “S”.

- The abbreviation RNA is already introduced in line 203. Thus, there is no need to introduce it again in lines 226 and 516. Furthermore, why is RNA in lines 203, 412 and from line 516 on in the text (Section 4.6.2 and Table 16) written in italics? It is not a parameter but just an abbreviation.
- For reasons of consistency, please write the number 1025 in line 290 as well with a comma at the thousands (1,205).
- Line 291: Please add the unit (m) after the number -13.46.
- Lines 316 and 436: Please correct “upscale factor” into “upscaling factor”.
- Please check the journal guidelines, whether Section should always be written out. I just wondered as you have always written Section, but now used Sect. in lines 319 and 344.
- Table 9:
 - There is no need to introduce the parameter “R” again for the rotor radius.
 - Why are the entries in the first line (apart from the one in the first column) bolt?
- Line 435: There seems to be a “to” missing in “can be used develop”.
- Please introduce the parameter Tn in the text before using it in Table 14.
- Lines 543/544: Please correct the grammar of this sentence. “that is” may just be replaced by “are”.