

Dear referees,

Thank you again for the reviews of the paper and the helpful feedback. Referee 2 had a few additional comments for a second edit. Below find the comments and the corresponding changes.

Thank you,

Will, Jason, and Amy

## Referee 2

Comments:

*The revisions have improved the manuscript, although my previous comments on the relevance still stand. The study examines how different responses vary for different inputs, but the results are very much dependent on the choice of ranges for the parameters. The range for the wind speed standard deviation, in particular, is quite enormous, and I don't think that this range of variation is really relevant for design. All that being said, the work is clear and believable, and the results make sense in light of the choices made.*

The following text was added to emphasize the importance of the parameter range to the conclusions you are able to draw.

Page 10 – Section 3.1 - “It should be noted that the parameter ranges represent the range of possible values for a wide range of conditions, and not a range of uncertainty for the design value. This applies for wind and wave conditions and generally increases the size of the parameter range, increasing the relative sensitivity. The sensitivity to a parameter is directly correlated to the parameter range, so the resulting relative sensitivities need to be understood in the context of the parameter range choices. The presented range selection informs about the possible variation in loads across a wide range of conditions.”

The last sentence of the conclusion was also updated to highlight this point.

Page 27 – Section 8 - “The conclusions should be treated as unique to the individual platform and turbine, as well as the selected parameter ranges, and it is recommended that nonoperational load cases are also considered.”

*I don't find an answer regarding the 1 minute transients in the response, however – how is this duration determined to be sufficient to eliminate transient responses when the natural periods are longer than 1 minute?*

The text in italics was added to clarify this point. It is good to highlight that the initial conditions for surge and pitch were adjusted to be close to the expected mean value.

Page 5 – Section 2.2 - “Each simulation was run for a 10-minute time series with a 1-minute transient removed from the results. *This transient period was selected based on time series of the nominal load case for each of the three conditions. The time of the transient period was reduced by using initial surge and pitch values near their expected mean values for each wind speed.*”

*Abstract: I would reword the last sentence as “The results are specific to the platform, turbine, and choice of parameter ranges, but the demonstrated approach can be applied widely to guide focus in design parameter uncertainty.*

This change in the abstract has been made. Additionally, the word ‘design’ was removed from the end of the sentence. In line with the first comment, the parameter ranges are not necessarily ranges in ‘design’ values, but instead the range of expected possible conditions.

“The results are specific to the platform and turbine, and choice of parameter ranges, but the demonstrated approach can be applied widely to guide focus in parameter uncertainty.”