

Answers to editor on wes-2022-109

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Answer to the editor

1. The editor demanded to "include the defined controller in ROSCO (including the constant k_β , rather than detuning) for this platform". For this, authors have added in Section 3.4 a further term of comparison which considers a constant and unique value of k_β . The value is chosen to be the one proposed by ROSCO for this FOWT system (see https://github.com/NREL/ROSCO/blob/main/Test_Cases/IEA-15-240-RWT-UMaineSemi/DISCON-UMaineSemi.IN).

During the code implementation of this point, one mistake has been discovered for the image showing the DEL of the bearing of the blade pitch. The error concerned only the wording "increment" (results were correct). This word "increment" was inappropriate because the value reported are related to a ratio between the the different strategies. Hence, an increment lower than 100% results in a decrease of the fatigue of the bearing. It induced in error also the authors which commented in accord with the word "increment". This word is corrected by "ratio" and the comments to those results are corrected also.

2. The editor demanded: "Section 3.4 should include some time series to illustrate the effects of the different controllers on control signals, generator speed, and platform pitch. These can be short time series for a single case, but are needed to increase understanding." Considering the wind condition 10 ms^{-1} , time-series of the quantities of interest have been extracted from the simulation. 150 seconds plot are reported. A larger time would make the images hard to be read.
3. An English native-speaker has reviewed the paper. Many improvements are introduced for the English and some extraneous words are identified and replaced.