	Reviewer Comment	Type of Response	Specifics of Response
1	L88: "CT is the wind turbine thrust coefficient" --> CT is the neighboring (?) wind turbine thrust coefficient	Revise text.	Revised text: "C_T is the thrust coefficient of neighboring turbines. Here, C_T is the same for the 16 wind turbines for a given wind scenario. In total, three individual wind and thrust values are used based on the scenarios defined in Sect. 2.3.1."
2	L102: "Note that wake-added turbulence is a forthcoming capability of FAST.Farm that was not available in the model version used here. That said, the ambient turbulence intensities simulated in the wind scenarios are high enough that the absence of wake-added turbulence would not likely impact the conclusions of this study (Shaler and Jonkman, 2021)." To the best of my understanding, the EFF approach is based on the computation of an effective turbulence to consider the influence of the adjacent wind turbines on the target turbine, i.e. to consider the influence of the wake-added turbulence. However, regarding the FAST.Farm computations, you justify that the wake-added turbulence would not impact the conclusions because of the high turbulence wind scenarios. Since the wind scenarios are similar between EEF and FAST.Farm, I see a contradiction there. Could you comment on this?	Revise text.	Revised text: "Note that wake-added turbulence (the additional small-scale turbulence generated from the turbulent mixing in the wake) is a forthcoming capability…" FAST.Farm does model the increased turbulence in the wake relative to the freestream, associated with the meandering wake deficits. The term "wake-added turbulence", despite common when discussing the dynamic wake meandering modeling framework, is indeed confusing. It doesn't refer to the total turbulence levels in a wind turbine wake relative to the freestream. Instead, it refers to small-scale added turbulence generated by the vortex breakdown and shear layer of the wake. The FAST.Farm manual describes it as "the additional small-scale turbulence generated from the turbulent mixing in the wake".

	L332: Same remark as before regarding the effect of the wake-added turbulence.		
3	L210: I suggest adding a subsection regarding the structural loading computation inside the section "Methods" and refer to steps FF.3 and EFF.3 of Fig. 5.	Clarify to reviewer.	The load simulations are already explained in detail in “Simulation Approaches” (Section 2.1) which describes the effective turbulence methodology for standalone wind turbine load calculations (Subsection 2.1.1) and the FAST.Farm methodology for wind farm load calculations (Subsection 2.1.2). We believe it makes sense to introduce these two approaches first and then the details of the inflow, although in practice the inflow is generated first. So you are correct in that the order of the description doesn’t match the order of the schematic in Figure 5.
4	L245: In Figure 10, some turbulence intensities obtained with FAST.Farm (directions 0° -90°) for non-waked turbines are much higher than the average freestream turbulence, e.g. T1 for 30° in Figure 10 (c). Considering T1, it is also the case to a lesser extent for other wind directions in Figure 10 (a) and 10 (b). Could you comment on this?	Clarify to reviewer.	This has to do with limitations of the turbulence simulation tool “TurbSim”. First limitation: Given the height of our turbulence planes, we can only request a specific turbulence level at 215 m and not at 90 m. So we can’t quite know what we’re going to get at 90 m until we get it. When requesting a specific turbulence intensity at 215 m, we provide the target value but allow TurbSim to vary around that requested value. If you are familiar with TurbSim, that means the ScaleIEC option is set to 0 here. When ScaleIEC = 0, the turbulence intensity will have a Gaussian distribution about the target value. However, the value obtained can sometimes be more. That is what I am trying to show with Figure 9 – if you average all seeds, wind turbines, farm orientations you do end up with the requested value. But for specific turbines,

			orientations, seeds the freestream turbulence might indeed be larger than the target, as you point out.
5	L335: “On average, our results agree with previous studies that compared the EFF to measurements (Argyle et al., 2018; Reinwardt et al., 2018) and DWM predictions (Reinwardt et al., 2018) and found EFF to overestimate turbulence levels.” I found this sentence a bit in contradiction with one sentence of the introduction (L60): “The work that we present here was motivated by the small number of published studies on this topic and the lack of consistency among them.” I therefore suggest slightly rephrasing to insist on the fact that your results agree with the specific works of Argyle et al., 2018 and Reinwardt et al.,2018 instead of using “agree with previous studies”.	Revise text.	Revised text: “On average, our results agree with Argyle et al. (2018); Reinwardt et al. (2018) who compared the EFF to measurements and DWM…”

All minor comments were addressed.