We thank the referee for their careful review of this manuscript and for their helpful and constructive comments. We appreciate that the referee finds this work relevant to the community, and will endeavor to incorporate their feedback in the revised manuscript. We provide the referee comments in italics and our response in standard font. Proposed manuscript changes (if substantive) are in color and describe changes made in response to each comment.

Referee Comment: *The classical, unsteady, linearized airfoil theories used in this study are very important in wind turbine aerodynamics, but unsteadiness is commonly ignored or represented by a quasi-steady steady process in models like blade element theory. ... There is a huge literature on unsteady behaviour of airfoils, from which the authors have drawn a comprehensive and appropriate reference list.*

We appreciate the referee's assessment and agree with the summary of the scope of this project.

Referee Comment: *The authors carefully state that the effects of plunging and pitching are superimposes and then on L83 describe this as a "linear model that results in a linear combination…". I think "results" is misplaced as the model is linear by construction.*

We wished to make it clear that adding two linear models maintains the linear character of the two individual components. The referee's comment suggests a more clear way to communicate this.

We have removed the first mention of linear in L83.

Referee Comment: *Small point: "infinite-span airfoil" is a tautology as an airfoil must have infinite span.*

We agree with the referee that it should be self-evident that our 2D setup requires an idealization, but we believe this redundant phrasing is helpful in reminding readers of this point.

Referee Comment: *Figure 2 shows the two-dimensional (2D) computational domain but then we are told that the unsteady vorticity field was modeled by large eddy simulation (LES) which is inherently three dimensional. How the LES is embedded in the 2D simulation is not described.*

We agree with the referee that a full large-eddy simulation (LES) is inherently three-dimensional; as such, while the nominal solver can perform LES, the two-dimensional nature of our setup and potential flow formulation of the problem precludes this. The use of the WALE eddy viscosity model allows for a smooth transition of the 2D resolved flow to the airfoil surface, ensures that vortical motions in the near-airfoil region (where inviscid analysis is not appropriate) are not completely ignored, and stabilizes the solution at relatively large Re_c.

We have added clarifying language about the role of the WALE model in our simulations.

Referee Comment: *Small point: "to perform this transformation" on L190 is vague. I think you mean "to return to the inertial frame"?*

We have clarified L190 as suggested by the referee.

Referee Comment: *The discussion of the Reynolds number (Re) should be improved. My judgement is that Re > 200,000 is a good compromise as it avoids complexities like leading edge separation bubbles, that occur at lower Re while not requiring very fine grids. A vague reference to "the nonlinear effects of high Reynolds-number …" whatever they are, is not needed.*

We have expanded and revised the section of the manuscript around L190 as suggested by the referee to make the discussion clearer.

Referee Comment: *A brief description of the error bars in Figure 3 and the line thickness of the simulations in Figure 4 would help interpret the results. Presumably the latter represent averages over a number of cycles starting after a specified time. These details should be given. Similar remarks apply to the later figures.*

We have expanded the figure captions to better explain plotting details to the reader.

Referee Comment: *The effects of finite Re are mentioned briefly on L370 where the theory is said to be "inviscid". Since the classical theories contain a model for the wake and use the Kutta condition, a better adjective would be "infinite Reynolds number".*

We have added and amended the description of the flow to say it is approaching the infinite Reynolds number limit.