We would like to thank you for your constructive feedback.

Please find below our answers to your comments.

RC1:

Line 132: Typo: Consisting only [of] hexaedral cells

AC:

Done

RC1:

Lines 131-138. The description of the domain discretization was improved in the reviewed version of the manuscript. Considering that for most of the cells the value of the y+ is of the order of 30 and 70 a wall function is employed. Further details could be provided about the wall function. Was this strategy tested in previous work by the authors? Why was this methodology chosen? What are its limitations in the applied test case? Please provide a brief description of the points above.

AC:

The investigation in this study utilizes a pre-validated blade mesh, which determines the local y+ values to the existing near body grid resolution. To maintain accuracy within the boundary layer, a wall function is employed, ensuring a consistent turbulent viscosity profile for all simulated walls. This chosen setup and methodology aim to minimize computational costs within the boundary layer while offering enhanced resolution for studying the near wake losses and tip vortex trajectories with utmost precision. In recent years, this strategy has been widely employed both within the institute and the OpenFOAM community. It is acknowledged that this approach has certain limitations, especially when dealing with highly separated flow scenarios such as non-operating conditions with high angles of attack. However, in the case of this study, the turbine is simulated under rated conditions, and the local blade sections operate within the linear range. As a result, these non-design conditions do not apply here. The mentioned paragraph has been rephrased to:

“[…] This wall function is capable of blending automatically between a high-Re and a low-Re approach, depending on the local y+ value. For the majority of the cells inside the first layer, a y+ value between 30 and 70 is applied. Here, the wall function ensures a consistent turbulent viscosity profile for all simulated walls. […] “