Response to Reviewer #2

In their revision of the paper entitled "Evaluating the vegetation-atmosphere coupling strength of ORCHIDEE land surface model (v7266)", the authors have addressed all of the major comments I have raised in the first review. Major updates are 1) a revision of the Ga calculation in ORCHIDEE, in particular replacing vegetation height with measurement height, and 2) a sensitivity analysis to characterise the effects of uncertainties in Ga on the decoupling coefficient.

I think the authors have done a thorough job in addressing my comments and I did not find any further issues. I have only a few more minor comments that the authors might want to take on board:

[Response] We thank the Reviewer for the positive comments and helpful suggestions. Please find below the Reviewer's comments (italics), followed by our responses (roman font), with red color indicating relevant changes in the manuscript.

- I suggest to report measurement height somewhere (maybe Table S1)

[Response] The measurement height has been added to Table S1.

L. 614: I understand this point better now. Maybe rephrase to "under the whole range of conditions" or similar. But still wondering if 'no wind' ever occurs, maybe rephrase to 'very low wind speeds' or similar.

[Response] Thanks for these suggestions. We have revised accordingly.

L. 625: should this reference be Thom et al. 1972 (not 1975)?

[Response]. The original reference is Thom et al. 1972, we revised it in the final manuscript.

L. 627: et al.

[Response] Corrected.

L. 648: that is interesting, and thanks for the clarification. It would be good to give a % range of what 'significant biases' mean

[Response] The reference paper did not provide the percentage but only the biases in W m^2, which we have added to the manuscript. L. 417: "A recent study (McColl, 2020) showed that the linear approximation of Clausius-Clapeyron relation in the Penman-Monteith equation can contribute ~5.7 W m^2 biases to daytime and ~1.2 W m^2 biases

to nighttime LE. This bias is remarkable when there is large difference between ambient air temperature and surface temperature (often with small Ga).”