



EGUsphere, author comment AC1
<https://doi.org/10.5194/egusphere-2022-135-AC1>, 2022
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Reply on RC1

Marina Martínez Montero et al.

Author comment on "SURFER v2.0: a flexible and simple model linking anthropogenic CO₂ emissions and solar radiation modification to ocean acidification and sea level rise" by Marina Martínez Montero et al., EGU sphere,
<https://doi.org/10.5194/egusphere-2022-135-AC1>, 2022

We thank the referee for the insightful comments. We would like to emphasise that the model is primarily intended for commitment analyses in the timescales of millennia. In those timescales ice sheet tipping points become very relevant and, as shown by Van Breedam et al. (2020), the main contributions to sea level rise come from Greenland and Antarctic ice sheets. It is true, however, that we suggested SURFER could be used for policy assessments that include sea level rise also on shorter timescales. For those timescales, we agree with the referee that, the contributions from glaciers and thermal expansion are dominant. In the revised version we will explore the references mentioned by the referee and clarify the intended usage of the model. We will consider including contributions from glaciers and ocean thermal expansion to extend the usability of the model on shorter timescales.

We will also take into account the other comments and they will undoubtedly improve the paper.