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# *Interactive comment on* "Implementation of the Community Earth System Model (CESM1, version 1.2.1) as a new basemodel into version 2.50 of the MESSy framework" *by* A. J. G. Baumgaertner et al.

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We thank the reviewer for the helpful comments on the original version of the manuscript and respond to each point below.

*The abstract would benefit from being shortened and streamlined slightly, e.g. l. 8-12 between "The SE dynamical core..." and "...future computing architectures." form an interesting exposition of the spectral element core, but seem to be rather explanatory than synoptic and would blend well with the introduction.*
The abstract will be shortened according to reviewers suggestion.

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*Also, the CAM acronym, while defined later in the text, deserves to be explained in l. 5 where it is mentioned first.*
This will be corrected.

*The introduction mentions four MESSy layers, but names only three of them, and it would be convenient for a reader not familiar with the MESSy concept to maintain the order of BML - BMIL - SMIL - SMCL employed in section 2 and figure 1 below. Also, the terminology used seems to be established enough not to be characterised as "so- called".*
Rewritten as: "The code is organized in 4 layers: a basemodel of any level of complexity is complemented by a basemodel interface layer. A further interface layer to the submodels makes it possible to keep process submodels as distinct as possible in the submodel core layer." "so-called" is omitted in the revised version.

*Finally, while this reviewer agrees that using the Global Electric Circuit is certainly very elegant in integrating several variables into one, he feels that this approach is hardly unique and should not be named as such.*
"unique" is omitted in the revised version.

*Typographical errors not listed already by Anonymous Referee 1*
*p. 6530, l. 18: CAM "performs" a time integration*
*p. 6533, l. 3: there "are" a number of setups*
*p. 6533, l. 22: are converted before and "" after the advection, remove "back"*
*p. 6535, l. 9: emissions are "from" the year 2000*
All errors are corrected in the revised version.

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