

Interactive comment on “Oceanic and atmospheric methane cycling in the cGENIE Earth system model” by Christopher T. Reinhard et al.

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This paper describes the methane cycle in a model of intermediate complexity. This simple model seems to be necessary due to the long spin-up times of the reservoirs. The paper is made more awkward than it needs to be by trying to simulate the PET and primitive Earth. This is done with little reference and comparison to even simpler models. This is a well written paper, is suitable for GMD and can be accepted as is with the following minor suggestions:

478: Restructure The subject of this sentence should be ‘metabolic fluxes’ not ‘Figure 6’

547: Again, making the Figure lead the science, rather than vice versa.

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558: suggest rephrasing for international audiences ‘effective throttle’

646: Avoid telling the reader that they should find something ‘interesting’.

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