

Interactive comment on “A Hydrological Cycle Model for the Globally Resolved Energy Balance Model (GREB) v1.0” by Christian Stassen et al.

Anonymous Referee #2

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Minor comments

1) p. 1, ll. 25-26: I think the authors mean AR5 here (whose models are quite dated by now). Also, “the best possible” is certainly debatable. Perhaps it suffices to say that they are very complex models.

2) Equation (12): Please explain all the variables directly after introducing the equation. In particular, what is u_{star} ? It seems that it should be near-surface wind speed, but then, on p.7 ll. 2-3 it says that wind speed is lower over land for a given u_{star} , suggesting that it is something else.

3) p. 8, l. 26: Is the good match with observations for Ireland very meaningful if what you are really interested in is the global quality of the data?

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4) The English could use a little editing (e.g. number agreement). Some examples: p. 2, l. 19: “parameterisations . . . is described” -> “are described” p. 3, l. 16: “wind and cloud cover field are” -> “fields” p. 3, l. 23: “a autoregressive” -> “an autoregressive” p. 5, l. 13: “precipitation and its seasonal cycle is shown” -> “are shown” p. 5, l. 3: “It, however, has. . .” -> “It has, however, . . .” p. 6, l. 3: “range of uncertainty CMIP5 modelled” -> “of CMIP5”

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