

Response to Editors's comments for Schoetter et al : Parametrisation of the variety of human behaviour related to building energy consumption in the Town Energy Balance (SURFEX-TEB v. 8.2)

Thanks for submitting your responses to each reviewer comment. The paper clearly makes a significant contribution to the field. I only have two minor comments which need addressing before acceptance.

Dear Jatin,

Thanks for taking the time to edit our submission. Please find our response to the two minor comments below.

1. With the final comment of the last reviewer about sensitivity to infiltration, i think it would be worth-while to add a few sentences to the manuscript about this. You stated yourself in the reply that: "A very important result of the "no infiltration" experiment is that even without infiltration, there is still a tendency that TEB overestimates the sensitivity of the heating energy demand to air temperature. This shows that the bad results for this sensitivity for the DEF and DOM model configuration cannot be explained by a too strong dependency of infiltration on air temperature." This seems to me to be an important point to make in the manuscript? I was a bit surprised that you chose not to make any edits.

Thanks for this suggestion. We now briefly mention the results of this experiment in the manuscript (page 39, line 8).

2. At GMD, we are strongly moving towards making the exact code used for the manuscript available via a DOI, to ensure that the work is truly reproducible:

http://www.geoscientific-model-development.net/about/code_and_data_policy.html

We suggest using ZENODO for this purpose: <https://zenodo.org/>

Since the code is already open-source, there should not be any issues in uploading the exact source code for this paper on ZENODO (note that ZENODO can point to github and/or bitbucket in case you are already using any of these platforms). I strongly encourage you to please make the version of the code used for this paper available on ZENODO and add the relevant details under code availability.

We now make the source code available via ZENODO (<https://zenodo.org/record/818632>; DOI 10.5281/zenodo.818632). We provide the modified source code and the run directories (forcing, physiographic data, namelists, ...) for the 4 model experiments described in Section 4.2.3 of our manuscript. In a README.txt file, we describe in which routines the modified TEB equations can be found and how the run directories are structured. We now mention the code availability via ZENODO in the code availability section (page 30, line 17).

Kind Regards,
Jatin

Best regards,
Robert Schoetter on behalf of the authors.