

Response to referees of manuscript "Dispersion of particulate matter (PM2.5) from wood combustion for residential heating: Optimisation of mitigation actions based on large-eddy simulations" by T. Wolf, L. Pettersson and I. Esau

Comments from the Editor

Thanks for your reply and the revised manuscript. Both reviewers and I are satisfied with the performed changes and your manuscript is (almost) ready for being published in ACP. There are a few more minor and technical things that should be corrected before final publication.

We are pleased to hear this positive evaluation of our work. Indeed, we have left some technical issues to be corrected during the final submission. It is done now.

- The referencing show frequently an inconsistent way of citing other peoples work. For example:

Line 100: "... as described by Maronga et al. (Maronga et al., 2015, 2019b)" should be "... as described by Maronga et al. (2015, 2019b)", same for the Wolf et al. citation that follows

Line 69: It should be "(Chandler, 1976; Bai, 2018)"

Further citation bugs can be found in lines 203, 229, 233, 358, 411, etc.

See guidelines here: <https://www.atmospheric-chemistry-and-physics.net/submission.html#references>

We use the automated referencing in the MSWORD document. The document had some problems, and they are corrected in this submission.

- Line 58: The word "perhaps" or the entire sentence should be removed, if you are not sure that your study is one of the first of its kind.

We removed this ambiguity.

- Line 83: "long-distance (in some local sense)" is a bit confusing. Do you mean "long-range or near-distant pollution transport"?

Now, we use the term "long-range" and explain in more details what it means in the context of the local modeling study.

- Line 142-143: "... whereas policy makers and stakeholders were less open to explore different opportunities and stove replacement strategies." This is a quite personal statement without any back-up/reference. I would suggest to remove it.

Perhaps you are right, but such a narrow approach has been also criticized in another independent study by

Lopez-Aparicio, S., & Grythe, H. (2020). Evaluating the effectiveness of a stove exchange programme on PM2.5 emission reduction. Atmospheric Environment, 231(October 2019). doi:10.1016/j.atmosenv.2020.117529.

Nevertheless, we prefer to tone down this statement.

- Line 183: Please put parenthesis around "(10x10x10)m^3" or write "10 m x 10 m x 10 m"

It is corrected now.

- Line 430 / Data availability: The need to contact the corresponding author for data is not best practice. If possible, please add the direct link or DOI to the data on the Nansen Center (see also https://www.atmospheric-chemistry-and-physics.net/policies/data_policy.html).

We agree, a direct link to the data is now given.

Referee #1

Recommended acceptance.

Referee #2

Recommended acceptance.