

Both reviewers seem to have really enjoyed your original manuscript, and you've responded well to the comments they did have. I just have a few extra, both minor:

We thank the editor for both points raised.

(1) In your response to Reviewer 1, you mention that ISIMIP climate data are used in the simulations. Please mention (and cite) this in Supplement S1, and provide details (e.g., how is "constant climate" calculated/implemented?).

The ISIMIP citation has been added in Supplement S1. And "constant climate", i.e. constant temperature, based on historical extrapolation is explained. The following paragraph is added to S1:

"The heating and cooling demand (final energy) in REMIND (baseline scenario) is calculated based on annual degree days calculated on gridded daily temperature data from the ISIMIP project (Warszawski et al., 2014). This calculation is carried out in an energy demand model for buildings "EDGE-B" (Levesque et al., 2018) then fed into REMIND. In this calculation we assume constant climate from now on into the future. Specifically, the average of the last few years of historical data which lasts until 2010 is used for future data. "

(2) Re: your response to that same comment: Please mention in #7 under Sect. 6.3 that neither extremes \*nor trend\* are considered. Please also mention that average annual degree-days are used, as this helps explain why extremes aren't considered.

We wrote the following under #7 in Sect 6.3:

"Climate impacts under various scenarios on building sector power demand is not included in current version of REMIND or its energy demand model for building sector "EDGE-B" (Levesque et al., 2018). Climate extremes such as heat waves are not included in either model due to the fact that annual degree days are used which are the results of temporal averaging. Representative weather years which maintain the temperature extremes and can represent long-term trends are also not used. However, the demand projection does change in a minor way based on SSP scenarios due to their different population projections."