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***Energy and Buildings***  
*Research Paper*

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Dear Reviewers, dear Associate Editors,

Please find attached our manuscript "*Equitable decarbonization of heat supply in residential multi-apartment rental buildings: Optimal subsidy allocation between the property owner and tenants*" which we would like to submit for publication in your journal *Energy and Buildings*.

The core objective of this work is to demonstrate equitable decarbonization of heat supply in residential multi-apartment rental buildings. A modeling framework is developed determining a socially balanced financial governance support strategy between the property owner and tenants to trigger a heating system change. The results of different decarbonization scenarios of a partly renovated old building switching from gas-fired heat supply to either the district heating network or being equipped with a heat pump system show that an equitable heating system change is possible but with massive public subsidy payments. Allocating the costs of inaction (opportunity costs associated with rising CO<sub>2</sub> prices) between the governance, property owner, and tenants turns out as an important lever as required subsidy payments can be reduced significantly.

We believe that with this work, we can contribute to your journal's agenda as our focus lies on the energy use in multi-apartment rental buildings and the equitable decarbonization of the residential heat supply.

We would like to propose the following researchers as reviewers:

Alessio Mastrucci ([mastrucc@iiasa.ac.at](mailto:mastrucc@iiasa.ac.at)) from the International Institute of Applied Systems Analysis (IIASA);  
Robert Pietzcker ([pietzcker@pik-potsdam.de](mailto:pietzcker@pik-potsdam.de)) from Potsdam Institute for Climate Impact Research (PIK);  
Pao-Yu Oei from ([pao-yu.oei@uni-flensburg.de](mailto:pao-yu.oei@uni-flensburg.de)) Europa-Universität Flensburg (EUF);  
Lena Kitzing ([lkit@dtu.dk](mailto:lkit@dtu.dk)) from the Technical University of Denmark (DTU).

This manuscript is original; no part of this work has been published before nor is it under consideration for publication in another journal. The authors declare that there are no conflicts of interest regarding the publication of this paper. The paper has been professionally proofread.

The corresponding author is Sebastian Zwickl-Bernhard. The contact details can be found above.

I am looking forward to your reply and thank you in advance for your consideration.

Yours sincerely,



Sebastian Zwickl-Bernhard