Dear Editor,

We would like to submit the enclosed manuscript entitled “Quantify the Impact of Building Load Forecast on Energy Management of Microgrid”, which we wish to be considered for publication in *Building and Environment*.

The work described has not been submitted elsewhere for publication, in whole or in part, and all the authors listed have approved the manuscript that is enclosed. This paper examines how the load prediction uncertainty would impact the control performance of microgrid. We believe that following aspects of this manuscript will make it interesting to general readers of your journal.

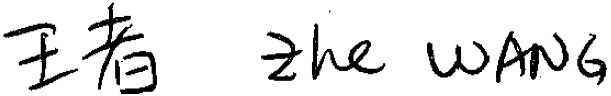
First, we find prediction uncertainties have different impacts on the control performance when the demand charge is or is not considered. Without considering demand charges, the control performance is robust to forecast uncertainties, while when demand charges are taken into account, the control performance is very sensitive to forecast uncertainties.

Second, we find the forecast errors have asymmetric impact on control performance when demand charges are considered. Underestimating future load leads to poorer control performance compared with overestimating future load, when the demand charges are considered.

Third, we find singular metrics like MAPE cannot reliably indicate MPC control performance, as these metrics overlook important information such as residual distribution patterns and temporal correlations, which are valuable for MPC. Therefore, more complex forecast features should be considered to provide a clear objective for upstream forecasting tasks.

We believe this work sheds light on how prediction errors would impact the control performance. Thank you very much for your time and consideration.

Sincerely yours,



Zhe Wang