

Interactive comment on “Feasibility study for 100 % renewable energy microgrids in Switzerland” by Sarah Barber et al.

Sarah Barber et al.

sarah.barber@hsr.ch

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Dear reviewers,

Thanks for taking the time to read the paper and make some useful comments. Here are my answers:

Björn Andresen: 1) It is actually the LCOE that I am calculating. I have changed the description of this in the final manuscript. 2) The price of wind energy increases with decreasing wind turbine size. Actually the price of 4,400\$/kWh, which comes from a real wind turbine, is very low compared to other small wind turbines (<https://www.nrel.gov/analysis/tech-cost-dg.html>). I have checked and corrected the PV and battery costs in the final manuscript. 3) I have checked and adjusted this in

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the final manuscript. 4) I have included a more detailed analysis and discussion of the SSR vs. time as well as comparisons of wind and PV production depending on the load vs. time in the final version.

Peiyuann Chen: 2.1 It is actually the LCOE that I am calculating. I have changed the description of this in the final manuscript. 2.2 I have included a more in-depth analysis of SSR in the final version, including an investigation and comparison of the different production vs. time and dependent on the load profiles. 2.3 I have included a more in-depth analysis of this complementary effect in the final version. This includes comparisons of production from PV and wind at different times and depending on the loads. 2.4 This should be answered now too in the final version. 2.5 The answer to this question is already partly given in Figure 13. This shows which solutions work based on this land area. However, I have added a discussion regarding other factors such as noise, permitting, acceptance, etc. to the final version of the manuscript. 3.1 Corrected in the final version.

In general, we have added a significant amount of more discussion and analysis to this paper, especially regarding the SSR and the complementary nature of wind and PV vs. time and depending on demand, and hope that it will now meet the requirements of this journal.

Best regards,

Sarah Barber

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2019-97>, 2019.

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