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

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Review of “feasibility Study for 100 % renewable energy microgrid in Switzerland”

Overall I agree to the comments from Peiyuann Chen, the topic is very interesting and needs more focus, some additional points from my side are:

1) You focus mainly on COE, but the main parameter for the decision to invest is the Levelized cost of energy LCOE.
2) The prices you are assuming for Wind, PV and battery systems are relatively high. Table 1 – the real prices are around half of the mentioned prices.
3) Table 2 – you use a very simplified load profile for the feasibility study as well as for the house consumption, why not use the well-defined standard load profiles with exist for different consumption types etc. It’s seems furthermore also relatively low to have a electrical average consumption of 2500 kWh/year per house.

// In 2015 per capita electricity consumption in Switzerland was 7,033 kWh

4) Self Sufficiency ratio – What have you use as the time scale to evaluate the SSR – yearly, monthly, daily, hourly, minute?
5) Conclusion – out of this study you will not be able to evaluate if the...

And in general be a little bit more critical of the results, and it’s not “just an upscaling” energy and power are to different parts, it can be that the supply on yearly basis can be provide by Wind, PV and batteries, but you need also more additional power and reserve power – exchange capacities, frequency stability mechanism etc. to provide a stable power system.

Best regards,

Björn