Abstract

Background: community solar increasing, pushed now by ZEV. Need to study effect of this policy on adoption of community PV

Use of ABM in recent years to simulate adoption but none of these studies have focussed on the adoption of community PV. Want to see differences in adoption, especially with laws now favouring community PV more than individual PV in Switzerland since January 2018.

Using TPB to model adoption at the individual scale, and adding aggregated effects to model community adoption

This is an ongoing research as part of a master thesis, and the results are not available yet. The hypothesis is that there will be greater community PV adoption than individual

Sensitivity analyses will be based on prices of electricity and PV systems, rebates from the new Energy Act 2018

Switzerland has recently enacted the new Energy Act, effective January 2018

In January 2018, the new Energy Act (2018) came into force which has very encouraging provisions for community solar PV systems, in terms of clearer legal structures (ZEV – Zusammenschluss zum Eigenverbrauch) and upto 30% rebates on the initial capital investment on PV system sizes greater than 30 kW. There is not a lot of scientific research as to how this new policy will fare, especially with changing electricity prices and falling PV costs. Agent-based modelling has been used to study adoption of new technologies, also residential solar PV adoption, but hasn’t been tried for community PV adoption. ABM can be used with validated energy data from City Energy Analyst models of Zurich to compare differences between level of adoption of individual and community solar PV systems and what drives community adoption