NRP 71 Households

Managing Energy Consumption

The role of social information, incentives and habits in household electricity consumption

Overview

Energiewende 2050

End nuclear power in Switzerland by 2050

Requirements	• Improvement of energy management • More efficient energy use in households	• More sustainable energy
Existing economic research	• Focus on price incentives	• Information provision as a new alternative

Results	• Rather inelastic prices
	  ◦ Consumer are not price sensitive
	• Higher prices also hard to implement
		• (so far) impact of information small given the cost
		  ◦ Typical result: -0.3 kWh per day through smart meter use

The behavioral economics approach

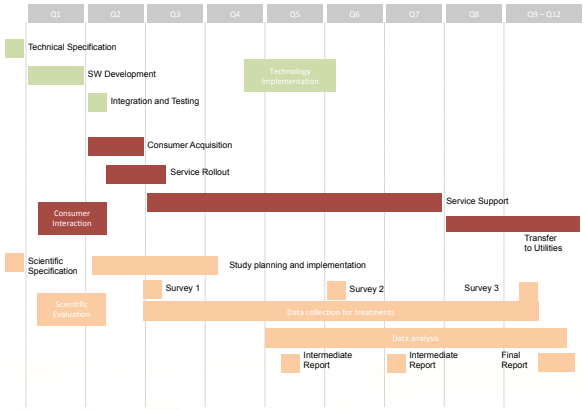
The role of social information, biases and incentives

Behavioral obstacles and chances	**Biases** • Salience • Status quo bias	**Altruism** • Willingness to conserve environment at cost • Social preferences
Approaches and solutions	**Nudges and impulses to break biases** • Specific, disaggregated, and playful information more effective • Positive mechanisms	
This project's approach	**Use existing smart metering infrastructure** • How can positive mechanisms be recruited through smart metering? • Does this make the behavioral responses stronger?	

The experimental design

	Control Group	Individual Feedback	Bonus Contract	Social Information
Profile, Hints, Forecasts	no	yes	yes	yes
Efficiency Bonus in year 1	no	no	yes	no
Profile, Hints, Forecast; comparison to partner household	no	no	no	yes

Project time line



Partners and Collaboration

RWE (Germany): Scientific evaluation of Smart-Metering rollout

- At least 1000 households will participate in RCT: testing disaggregated feedback and social information using BEN Energy platform.

BEN Energy

- Collaborate to develop research platform

Collaborations in Switzerland

- Notoriously difficult to find
- New recruitment push this spring. PLEASE HELP!

Energy Turnaround

We improve energy efficiency…

…using sophisticated technological tools and cutting-edge behavioral research	…by providing results on technologies that can easily be rolled out further	…by evaluating the effectiveness of interventions and uncovering the responsible behavioral mechanisms

Contact

HEC Lausanne, University of Lausanne
Professor Dr. Lorenz Götte (Principal Investigator) lorenz.goette@unil.ch
Dr. Tobias Graml (Post-Doc) tobias.graml@unil.ch