

## ProSTEP

Promotion or Steering-based Energy Policy: Assessing Distributional and Efficiency Impacts

## Overview

### Context

- Objectives of Swiss energy policy: **(i)** reduction in energy & electricity consumption, **(ii)** reduction of CO<sub>2</sub> emissions, **(iii)** increase in renewable energy sources
- Decision of Bundesrat in autumn 2013 (*Energy Strategy 2050*): Starting from 2020, gradual transition from today's promotion-based to steering-based system for Swiss energy & climate policy
- ProSTEP aims at assessing the efficiency and distributional impacts of current and future Swiss energy policy instruments

### Research Questions

Given targets of *Energy Strategy 2050*, ProSTEP compares promotion-based and steering-based regulatory systems focusing on the following questions:

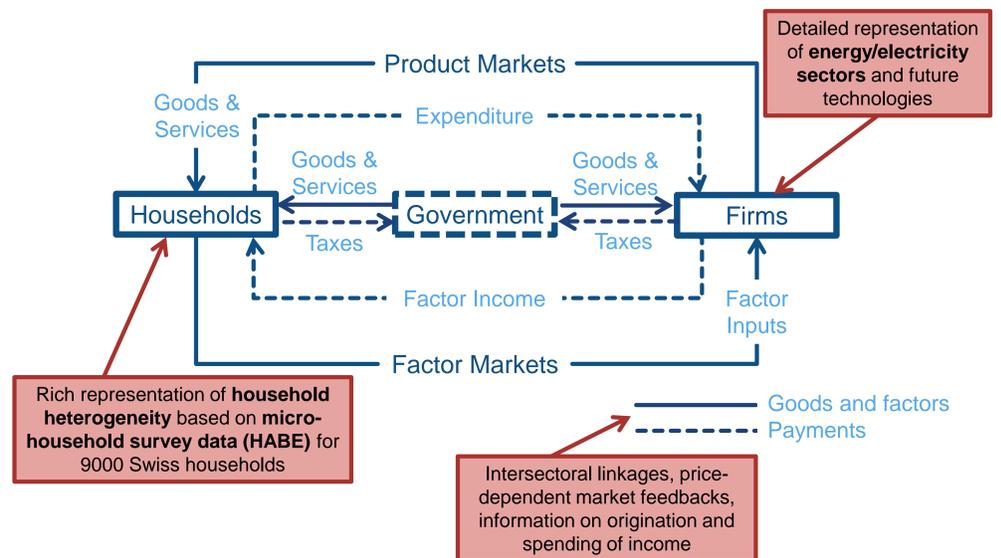
- How do the economic costs to achieve policy targets differ between two regulatory approaches? (*efficiency impacts*)
- Who bears the burden of and who benefits from the different policy instruments? (*distributional impacts*)

### Policy instruments to be analyzed under ProSTEP

	Electricity	CO <sub>2</sub>
steering instruments	Tax on electricity	CO <sub>2</sub> tax
promotion instruments	Feed-in remuneration at cost (KEV), Open competitive bidding	Building program, Refunding of revenue
Command and control instruments	Technology standards for electrical appliances	CO <sub>2</sub> emissions regulations for cars

### Empirical quantitative framework using integrated macro-economic and micro-simulation household analysis

Using an empirical general equilibrium model of the Swiss economy with integrated micro-household data enables detailed analysis of distributional impacts along various socio-economic dimensions of Swiss households



### Expected results

ProSTEP provides rigorous quantitative economic analysis with the objective to inform policy decisions aimed at regulating energy use and CO<sub>2</sub> emissions in Switzerland. Economic analysis will be helpful to provide insights into fundamental questions of instrument choice and design in light of alternative criteria to assess the performance of policy instruments, such as efficiency, equity, political feasibility, and environmental effectiveness.

## Partners and Collaboration

### Main activities for dissemination & implementation

- ✓ Advisory group (BAFU, BFE, EFV) meetings (i) to present interim results and (ii) to get first-hand feedback & inputs from institutions engaged in policy design & implementation process
- ✓ Scientific dissemination through presentation in academic conferences and publication in professional outlets
- ✓ Production of easy-to-read brochure with main results & policy recommendations
- ✓ Participation in dissemination activities launched by *Knowledge & Technology Transfer NRP 70 / 71*
- ✓ Engage in communication activities and research network of *SCCER Competence Center for Research in Energy, Society and Transition (SCCER-CREST)*

## Energy Turnaround

### ProSTEP contributes to realization of the *Energy Strategy 2050* through...

- ✓ ...addressing fundamental questions of instrument choice and design in context of Swiss energy & climate policy
- ✓ ...uncovering the hidden distributional effects of promotion-based and "command-and-control" policy measures
- ✓ ...handling the uncertainty about the future development (technological change, economic growth etc.)

ProSTEP can help to establish a social and political consensus for the *Energy Strategy 2050* by providing detailed analysis of distributional and efficiency impacts of Swiss policy instruments to stakeholders at different levels (e.g., federal, cantonal, and municipal).

## Contact

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