

Title: “In search of analytically sound and socially viable energy strategies for Switzerland”

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Abstract:

Switzerland is undergoing a radical energy transition to phase out nuclear power and mitigate climate change. As any innovation or radical change, this transition is characterized by deep uncertainties, risks, potential negative consequences, and tradeoffs. So that this transition is smooth, timely, and acceptable for the society as a whole, strategies that are both analytically sound and socially viable are needed. I will present insights from three studies that combine energy systems modeling and assessment with stakeholder and public perspectives in search of such strategies. The first study develops a municipal-level energy strategy for Urnäsch by iterating between stakeholder visioning workshops, electricity and heat supply modelling, and impact assessment. The second study focuses on the canton-level heat supply strategy for Appenzell Ausser rhoden by means of socio-technical analysis of biomass and other resources. The third national-level study examines tradeoffs between various human safety, health, natural and built environment risks posed by the changing Swiss electricity generation portfolio. I will close with discussing the future research directions for enabling a sound and socially viable implementation of the Swiss Energy Strategy 2050.

Bio:

Dr Evelina Trutnevyte is a senior researcher, team leader and lecturer at ETH Zurich, Department of Environmental Systems Science, USYS Transdisciplinarity Lab. She is a member of the Swiss Competence Center for Energy Research-Supply of Electricity (SCCER-SoE), ETH Energy Science Center (ETH ESC), and an associate of the ETH Institute of Science, Technology and Policy (ETH ISTEP). She is also an Honorary Senior Research Associate at University College London, Bartlett School of Environment, Energy & Resources. She holds the competitive Swiss National Science Foundation Ambizione Energy career grant for analysis of cross-technology and spatial risk trade-offs in the Swiss electricity generation portfolio (RIGOROUS project). She is an energy systems analyst and modeler, specializing in socio-technical approaches and energy decision making under deep uncertainty and at science-society interface. She is an engineer by training and completed her PhD studies at ETH Zurich, Chair of Natural and Social Science Interface. She brings expertise from universities in Switzerland, United Kingdom, United States of America, Denmark, Norway, and Lithuania.