

MA-Seminar

The Social Acceptance of Renewable Energy in Comparative Perspective

Chair of Comparative Politics

Lecturer: Dr. Jonas Schmid

ID	KSL-No: <u>458472</u> ; <u>ILIAS</u>
TIME	Tuesdays 08.15-10.00 AM
PLACE	<u>Room 002</u> HSZ von Roll, Fabrikstr. 2e, 3012 Berne
ELIGIBLE TO STUDENTS OF	Master in Political Science (POL), Master in Comparative and Swiss Politics (CSP), Master in Political, Legal and Economic Philosophy (PLEP)
THEMES	Social Acceptance, Policies and Institutions of the Renewable Energy Transition, Electricity, Heat, Natural Gas, Energy Grids, Hydropower, PV, Wind, Nuclear, Biomass, Energy Strategy 2050, Switzerland
PREREQUISITES	Completed Bachelor's Degree

1. Aims and Contents

The shift from using fossil fuels to embracing renewable energy is a major challenge faced by contemporary nation-states. Simply having technical knowledge about the best ways to deploy energy generation technologies is not enough to ensure success in achieving both energy security and full decarbonization. What is lacking is a profound understanding of how, why and under which rules and regulations energy infrastructure for renewables may effectively be constructed and operated. This essentially amounts to a question of political science, exploring how policy measures, combinations of policies, institutions, and citizen involvement can effectively contribute to the transition to renewable energy. Crucially – and especially in Switzerland – even the most well-designed policies or non-intrusive infrastructures may fail if they are not widely accepted by citizens. This seminar focuses on the critical issue of social acceptance of renewable infrastructure projects and policies, while also considering the role of institutions in energy transitions. Whenever possible, empirical examples are drawn from the case of the Swiss energy transition. The seminar pursues the fulfillment of the following learning outcomes:

Content-related learning objectives:

1. Participants help provide an overview over energy generation technologies and the grids. They understand and are able to classify the significance of technologies and grids in the Swiss context.
2. Participants understand the most important concepts, hypotheses and results from the comparative political science literature on renewable energy policies and institutions, with a focus on Switzerland.
3. Participants know, which factors or (causal) mechanisms help explain the social acceptance of renewable energy policies and facilities.
4. Participants are aware of the various roles the (non-) citizens play in the renewable energy transition.

Skill- and formal learning objectives:

5. Participants design and lead a workshop with their fellow participants as to maximize learning and understanding of the subject matter.
6. Through practicing oral debating, participants build coherent arguments and develop their rhetorical skills.
7. They apply and evaluate aspects of the seminar's content in their seminar paper. By writing a such paper, participants develop their methodological and scientific (writing) skills. The paper intends to serve as a preparatory exercise for the master's thesis.

2. Organization

2.1 The Sessions

The lion's share of this class is led by the participants themselves (sessions 4, 6-11) that conduct workshops in groups of two based on the readings. Form and content of these workshops are pre-discussed with the lecturer based on a written session plan. These main sessions (parts II and III) are embedded between three introductory sessions (part I) and two concluding sessions (part IV). In the first introductory session, the organization of the seminar is presented, participants subscribe to sessions as workshop instructors and an overview over possible workshop-tools is given. The second and third sessions are dedicated to establishing the class' analytical framework, thereby developing and clarifying the main concepts used. The main sessions then start by analyzing electricity production facilities by technology (part II, sessions 4, 6-8) for nuclear, hydropower, PV, and wind energy. Thereafter, the production of heat in biomass facilities and with heat pumps, as well as the transmission and distribution of energy is debated (part III, sessions 9-11). In the last two sessions (12-13), participants present their research questions and/or concepts for their seminar paper, feedback is collected, and the seminar concludes. There are no sessions on 20 February and 2 April. On 26 March in the afternoon (irregular schedule), the class visits the decommissioning-project of the nuclear power plant at Mühleberg, BE. The number of participants is limited at 15 students.

2.2. Readings

As a preparation for each session, it is expected that participants read those 1-2 readings that are marked as mandatory. The group of participants that conducts and leads the workshops in each session is expected to conduct a workshop based on discussing the additional 1-2 readings marked as "for workshop instructors". Workshop instructors are further expected to incorporate additional texts (academic and/or not) on the topic that are not on the syllabus.

2.3. Absences

Following the rule of the institute, maximally two previously announced absences are allowed. If the participant cancels her/his participation before the end of classes, but has signed up for the seminar on KSL, the participant will not get a grade (empty in student transcript).

2.4. Sign-up for Seminar on ILIAS & Enrollment for Assignments on KSL

The window to sign up for the present class on ILIAS opens on **15 January 2024 at 8 pm and closes on 15 March 2024 at 8 pm**. The lecturer does not take responsibility for late applications. To get a grade and credits, participants must further enroll for assignments on KSL. The KSL-window of enrollment is open from **1 April to 15 May 2024**. Delayed enrollment for assignments on KSL is only possible by application submitted directly to the relevant student administrators.

3. Assignments

To receive a total of 6 ECTS for the seminar, students must submit and pass the following assignments:

- Submitting a written workshop plan and conducting this workshop (30% of final grade) in groups of 2-3 based on a session's readings.
- Mandatory seminar paper (70% of final grade) applying aspects of the seminar's analytical framework. As a preparatory assignment, a mandatory concept (or the state of your work, not graded) shall be presented in the last two sessions. Latest date of submission for the seminar paper is **18 August 2024**.
- Being a discussant of all workshop readings of another session than the one where you co-lead the workshop (not graded).
- Active engagement and constructive debating in all sessions (not graded).

Aims, formal and content requirements of the assignments, as well as grading schemes are contained in the two guideline-documents on the seminar paper and on leading a workshop. Consequences in case of delay, non-submission, or non-cancelling of participation, are also laid out in these guideline documents.

4. Sessions and Readings

* Mandatory Readings for all
** Voluntary readings for class, but mandatory for workshop instructors and discussants

20/2/2024: No Session

Part I: Introduction

Session 1, 27/2/2024: Organization of Seminar, Requirements for Assignments, Overview of Workshop-Tools

Overview of the seminar's program, clarify aims, content, requirements for assignments and expectations. Sign-up in groups of two as workshop instructors and as discussants for the main sessions in parts II and III. Presentation of toolboxes for workshop activities. The visitor list for the site visit at the nuclear power plant in Mühleberg on 26/3 is also filled in.

Session 2, 5/3/2024: Concepts, Technologies, and the Role of Political Science in Energy Transitions

*Cherp, Aleh, Vadim Vinichenko, Jessica Jewell, Elina Brutschin, and Benjamin Sovacool. 2018. "Integrating Techno-Economic, Socio-Technical and Political Perspectives on National Energy Transitions: A Meta-Theoretical Framework." *Energy Research & Social Science* 37:175–90. doi: [10.1016/j.erss.2017.09.015](https://doi.org/10.1016/j.erss.2017.09.015).

*Dermont, Clau, Karin Ingold, Lorenz Kammermann, and Isabelle Stadelmann-Steffen. 2017. "Bringing the Policy Making Perspective in: A Political Science Approach to Social Acceptance." *Energy Policy* 108:359–68. doi: [10.1016/j.enpol.2017.05.062](https://doi.org/10.1016/j.enpol.2017.05.062).

*Panwar, N. L., S. C. Kaushik, and Surendra Kothari. 2011. "Role of Renewable Energy Sources in Environmental Protection: A Review." *Renewable and Sustainable Energy Reviews* 15(3):1513–24. doi: [10.1016/j.rser.2010.11.037](https://doi.org/10.1016/j.rser.2010.11.037).

Session 3, 12/3/2024: Institutional and Policy-Effects on Deployment Processes

*Balthasar, Andreas, Miranda A. Schreurs, and Frédéric Varone. 2020. "Energy transition in Europe and the United States: Policy Entrepreneurs and Veto Players in Federalist Systems." *The Journal of Environment & Development* 29(1):1–23. doi: [10.1177/1070496519887489](https://doi.org/10.1177/1070496519887489).

*Haelg, Leonore, Tobias Schmidt, and Sebastian Sewerin. 2022. "The Design of the Swiss Feed-in Tariff." Pp. 93–113 in *Swiss Energy Governance: Political, Economic and Legal Challenges and Opportunities in the Energy Transition*, edited by P. Hettich and A. Kachi. Cham: Springer.

*Stadelmann-Steffen, Isabelle. 2011. "Citizens as Veto Players: Climate Change Policy and the Constraints of Direct Democracy." *Environmental Politics* 20(4):485–507. doi: [10.1080/09644016.2011.589577](https://doi.org/10.1080/09644016.2011.589577).

15/3/2024 at 8pm: – Deadline Subscription on ILIAS

Part II: Electricity

Session 4, 19/3/2024: Nuclear Power – Preparation Session

*Kriesi, Hanspeter. 2017. "Switzerland." Pp. 259–85 in *The Politics of Nuclear Energy in Western Europe*, edited by W. C. Müller and P. W. Thurner. London New York, NY: Oxford University Press.

**Fischer, Manuel. 2015. "Collaboration Patterns, External Shocks and Uncertainty: Swiss Nuclear Energy Politics Before and After Fukushima." *Energy Policy* 86:520–28. doi: [10.1016/j.enpol.2015.08.007](https://doi.org/10.1016/j.enpol.2015.08.007).

**Marques, António Cardoso, and Thibaut Manuel Junqueira. 2022. "European Energy Transition: Decomposing the Performance of Nuclear Power." *Energy* 245:123244. doi: [10.1016/j.energy.2022.123244](https://doi.org/10.1016/j.energy.2022.123244).

Session 5, 26/3/2024: Field trip to BKW's Decommissioning Project of the Nuclear Power Plant at Mühleberg

Time: 11am – 4pm at BKW's former nuclear power plant in Mühleberg, BE.

Way there: S5 direction of Kerzers, departure at Bern (Hbf) 10.08 am, change to bus 570 at Bern Brünnen Westside direction of Mühleberg, Post, departure at 10.17 am, arrival at Fuchsenried, Mühlebergwerk at 10.30 am. 20 minutes walk from there to the power station (former) visitor center. Payment of the train and bus tickets is at the charge of the individual participants.

Way back: depending on end time of visit. Payment of the train and bus tickets is at the charge of the individual participants.

Important: No electronic devices may be brought along, except for cell phones, which must be deposited at the entrance. Visitors must wear closed shoes with some grip – we will be on a construction site. We will wear overalls, as handed out by the guides. Take some money in cash with you, for lunch at the site's cafeteria. It is not possible to come later and/or leave earlier. In coordination with Jonas, there is the possibility that participants can meet the group directly at the visitor center and/or ride back individually. If participants do not contact Jonas earlier, it is assumed they take the train together with the group.

1/4/2024: Start of Enrollment to Assignments on KSL

2/4/2024: No Session – Easter Break

Session 6, 9/4/2024: Hydropower

*Stadelmann-Steffen, Isabelle, Stefan Rieder, and Chantal Strotz. 2020. "The Politics of Renewable Energy Production in a Federal Context: The Deployment of Small Hydropower in the Swiss Cantons." *The Journal of Environment & Development* 29(1):75–98. doi: [10.1177/1070496519886005](https://doi.org/10.1177/1070496519886005).

**Díaz, Paula, Carolina Adler, and Anthony Patt. 2017. "Do Stakeholders' Perspectives on Renewable Energy Infrastructure Pose a Risk to Energy Policy Implementation? A Case of a Hydropower Plant in Switzerland." *Energy Policy* 108:21–28. doi: [10.1016/j.enpol.2017.05.033](https://doi.org/10.1016/j.enpol.2017.05.033).

**Tabi, Andrea, and Rolf Wüstenhagen. 2017. "Keep It Local and Fish-Friendly: Social Acceptance of Hydropower Projects in Switzerland." *Renewable and Sustainable Energy Reviews* 68:763–73. doi: [10.1016/j.rser.2016.10.006](https://doi.org/10.1016/j.rser.2016.10.006).

Session 7, 16/4/2024: Photovoltaics (PV)

*Cousse, Julia. 2021. "Still in Love with Solar Energy? Installation Size, Affect, and the Social Acceptance of Renewable Energy Technologies." *Renewable and Sustainable Energy Reviews* 145:111107. doi: [10.1016/j.rser.2021.111107](https://doi.org/10.1016/j.rser.2021.111107).

**Schmidt, Tobias, Isabelle Stadelmann-Steffen, Mak Đukan, David Giger, Nicolas Schmid, and Valentin Schneuwly. 2022. *Policy White Paper: Quantifying the Degree of Fragmentation of Policies Targeting Household Solar PV in Switzerland*. Zürich: SWEET-EDGE.

**Vuichard, Pascal, Alexander Stauch, and Rolf Wüstenhagen. 2021. "Keep It Local and Low-Key: Social Acceptance of Alpine Solar Power Projects." *Renewable and Sustainable Energy Reviews* 138:110516. doi: [10.1016/j.rser.2020.110516](https://doi.org/10.1016/j.rser.2020.110516).

Session 8, 23/4/2024: Wind Energy

*Wolsink, Maarten. 2012. "Wind Power: The Basic Challenge Concerning Social Acceptance." Pp. 12218–54 in *Encyclopedia of Sustainability Science and Technology*. Vol. 17, edited by R. A. Meyers. New York: Springer New York.

**Knauf, Jakob, and Rolf Wüstenhagen. 2023. "Crowdsourcing Social Acceptance: Why, When and How Project Developers Offer Citizens to Co-Invest in Wind Power." *Energy Policy* 173:113340. doi: [10.1016/j.enpol.2022.113340](https://doi.org/10.1016/j.enpol.2022.113340).

**Spiess, Harry, Evelyn Lobsiger-Kägi, Vicente Carabias-Hütter, and Andrea Marcolla. 2015. "Future Acceptance of Wind Energy Production: Exploring Future Local Acceptance of Wind Energy Production in a Swiss Alpine Region." *Technological Forecasting and Social Change* 101:263–74. doi: [10.1016/j.techfore.2015.06.042](https://doi.org/10.1016/j.techfore.2015.06.042).

Part III: Heat, Gas and Grids

Session 9, 30/4/2024: Biomass

*Banja, Manjola, Richard Sikkema, Martin Jégard, Vincenzo Motola, and Jean-François Dallemand. 2019. "Biomass for Energy in the EU – The Support Framework." *Energy Policy* 131:215–28. doi: [10.1016/j.enpol.2019.04.038](https://doi.org/10.1016/j.enpol.2019.04.038).

**Johnson, Eric. 2009. "Goodbye to Carbon Neutral: Getting Biomass Footprints Right." *Environmental Impact Assessment Review* 29(3):165–68. doi: [10.1016/j.eiar.2008.11.002](https://doi.org/10.1016/j.eiar.2008.11.002).

**Soland, Martin, Nora Steimer, and Walter Götz. 2013. "Local Acceptance of Existing Biogas Plants in Switzerland." *Energy Policy* 61:802–10. doi: [10.1016/j.enpol.2013.06.111](https://doi.org/10.1016/j.enpol.2013.06.111).

Session 10, 7/5/2024: Heat Pumps

*Kiss, Bernadett, Lena Neij, and Martin Jakob. 2013. "Heat Pumps: A Comparative Assessment of Innovation and Diffusion Policies in Sweden and Switzerland." Pp. 118–32 in *Energy Technology Innovation*, edited by A. Grubler and C. Wilson. Cambridge University Press.

**Côté, Elizabeth, and Cristian Pons-Seres De Brauwer. 2023. "Preferences of Homeowners for Heat-Pump Leasing: Evidence from a Choice Experiment in France, Germany, and Switzerland." *Energy Policy* 183:113779. doi: [10.1016/j.enpol.2023.113779](https://doi.org/10.1016/j.enpol.2023.113779).

**Saner, Dominik, Ronnie Juraske, Markus Kübert, Philipp Blum, Stefanie Hellweg, and Peter Bayer. 2010. "Is It Only CO₂ That Matters? A Life Cycle Perspective on Shallow Geothermal Systems." *Renewable and Sustainable Energy Reviews* 14(7):1798–1813. doi: [10.1016/j.rser.2010.04.002](https://doi.org/10.1016/j.rser.2010.04.002).

Session 11, 14/5/2024: Grids – Electricity, Gas, Heat and Sector Coupling

*Devine-Wright, Patrick, Hannah Devine-Wright, and Fionnguala Sherry-Brennan. 2010. "Visible Technologies, Invisible Organisations: An Empirical Study of Public Beliefs about Electricity Supply Networks." *Energy Policy* 38(8):4127–34. doi: [10.1016/j.enpol.2010.03.039](https://doi.org/10.1016/j.enpol.2010.03.039).

*Simon, Emilie. 2022. "What Role Can Natural Gas and Its Infrastructure Play in the Energy Transition in Switzerland : A Holistic Approach." Pp. 59–84 in *The Role of Natural Gas and Its Infrastructure in the Energy Transition in Switzerland*. Lausanne: Université de Lausanne.

**Battaglini, Antonella, Nadejda Komendantova, Patricia Brtnik, and Anthony Patt. 2012. "Perception of Barriers for Expansion of Electricity Grids in the European Union." *Energy Policy* 47:254–59. doi: [10.1016/j.enpol.2012.04.065](https://doi.org/10.1016/j.enpol.2012.04.065).

**Von Wirth, Timo, Linda Gislason, and Roman Seidl. 2018. "Distributed Energy Systems on a Neighborhood Scale: Reviewing Drivers of and Barriers to Social Acceptance." *Renewable and Sustainable Energy Reviews* 82:2618–28. doi: [10.1016/j.rser.2017.09.086](https://doi.org/10.1016/j.rser.2017.09.086).

14/5/2024 at Midnight: Deadline Submission of Concept for students presenting on 21/5

15/5/2024: Deadline Enrollment to Assignments on KSL

Part IV: Conclusion

Session 12, 21/5/2024: Cancelled

21/5/2024 at Midnight: Deadline Submission of Concept for Student Presentations

Session 13, 28/5/2024: Concept Presentations, Discussion of Evaluation and Feedback, Conclusion

Time: 08.15am-12pm, Room B007 at Fabrikstrasse 8, 3012 Bern

Time and presentation slots are allocated at an appropriate time. Feedback is discussed and the seminar concludes.

2/6/2024: Deadline for Individual Fixing of Submission Deadlines for Seminar Paper (Otherwise the Deadline is 18/8/2024)

18/8/2024 at Midnight: Latest Possible Deadline for Submission of Seminar Paper

5. Contacts of Lecturer

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Consultation hours by appointment (please send e-mail)

6. Further links

[SOWI-Guidelines for Composing Papers in the Social Sciences](#)

[Guidelines for Seminar Paper and Concept](#)

[Guidelines for Workshop and Discussant](#)

[Authorship Declaration Without and With Using Artificial Intelligence Tools](#)