

SCCER Crest-Symposium

Social Acceptance in Energy

Through democratic and administrative procedures

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Plenary Sessions

“Social Acceptance in Energy” was the subject of the first conference of the energy research center SCCER CREST (Swiss Competence Center for Energy Research – Competence Center for Research in Energy, Society and Transition). More than 100 researchers from different disciplines as well as participants from industry intensively dealt with social acceptance as one key issue of the “energy transition”. Not only does social acceptance determine the success of the energy transition, it is also a potential link for different fields of research as it may provide a base for (interdisciplinary) cooperation of researchers within SCCER CREST.

Besides various members of SCCER CREST a number of international academics and representatives of the authorities, the energy sector and the Swiss Commission for Technology and Innovation (CTI) participated at the symposium.

In a brief introduction Peter Hettich, professor for Energy Law at the University of St. Gallen and host of the conference, outlined the expectations for the symposium. According to him, its purpose was to introduce SCCER CREST and to provide a platform for the presentation of its projects. Furthermore, it should propose connections between the different fields of research and generate new ideas on how social acceptance might influence the energy transition.

Frank Krysiak (University of Basel and head of SCCER CREST) gave a first insight into the work of SCCER CREST. In his presentation, Krysiak spoke of the vision of SCCER CREST to find political, economic, social and legal conditions that facilitate the transformation of the Swiss energy system as well as to provide evidence-based recommendations for policies, market design and entrepreneurial strategies. In order to achieve these visions, SCCER CREST works on three main topics: the promotion of renewables, the reduction of energy consumption and assessment tools such as lab experiments or simulation tools. Krysiak made clear that some challenges will be faced during the process of achieving the visions of SCCER CREST. In particular, he mentioned that the reduction of the energy consumption will not only require innovations in energy efficient buildings, electricity and mobility but also changes in individual energy behavior and changes in governance. Fostering these change depends on social acceptance.

After this brief introduction to the symposium and the SCCER CREST in general, representatives of the different research fields within SCCER CREST presented their views concerning the term “social acceptance”.

The first contribution was given by Paul Burger, Professor for the socio-cultural domain within the interdisciplinary Master in Sustainable Development at the University of Basel. According to Burger's line of reasoning, refusing to accept something is not per se irrational, but can sometimes be based on good arguments. Burger indicated that reservations against certain technical projects do not necessarily indicate the public's general refusal of a technology and he emphasized that concerns are often legitimate. In this light, Burger argues against paternalistic “social engineering”.

The energy economist Professor Massimo Filippini (ETH Zurich) first noted that neither an economic theory on social acceptance nor any literature on social acceptance exists. Based on the different models of the “homo oeconomicus” and the “homo socio-oeconomicus”, Filippini therefore framed a first draft of an economic theory on social acceptance based on with incentives.

Andrea Tabi of the Institute for Economy and the Environment of the University of St. Gallen presented the management related issues of social acceptance. Tabi's goal is to detect reasons for the lack of public acceptance and to analyze the underlying notions and preferences of the individual citizen. Based on the research findings managers could draw conclusions to improve their communication strategy.

Simone Walther, Assistant Professor for energy law at the University of St. Gallen, discussed the term social acceptance from a legal perspective. She first described the function of law within society and then illustrated legal aspects, which can ensure social acceptance. She explained the use of legal norms containing moral elements in order to influence social behavior. According to Walther, social acceptance in law points to elections and votes, the rights of participation and procedural rights, fairness and an appropriate outcome.

Karin Ingold, Professor for policy analysis (University of Bern), spoke about social acceptance in Political Science as a question of level and research design, distinguishing between policy analysis and comparative politics. She disentangled the process of the political decision-making, and concluded that acceptance does not equal voting results or governmental decisions. She emphasized the importance of defining the group that “accepts” and the necessity of identifying whether this group consists of individuals or collective actors. In order to gain acceptance for renewable energies, a mix of different policy instruments may be needed.

Finally, Dr. Nicole Huijts from the Delft University of Technology (Netherlands) reported on her research on the acceptance of renewables, which combines technological and psychological aspects. She stated that the acceptance of different renewable energies, from the nuclear technology to the actual discussion on the so called “fracking”, has been subject to psychological research. From a psychological point of view, acceptance is influenced by internal factors such as personal moral concepts as well as by the social environment. Further, acceptance also depends on external factors such as any compensation, the spatial distance to planned projects or a country's social conditions in general.

Following the presentations about the different fields of research, the first key results were discussed in a plenary session.

In the afternoon, the participants of the symposium split into different workshops. While a first set of workshops was seeking to embed research on social acceptance in energy within SCCER CREST, the emphasis of the second set was the social acceptance of certain technologies.

In the final plenary session, Peter Kroes, philosopher and professor at the Delft University of Technology (Netherlands), analyzed the previous contributions. He pointed out, that moral issues have been ignored. Prof. Kroes emphasized that not social acceptance but social acceptability is decisive for the success for the energy turnaround.

“Lessons learnt from Public Processes – Public trust and acceptability” was the subject of the presentation held by Dr. Daniel Gregorowius from the foundation “Risiko-Dialog” (Winterthur). He agreed with the key findings of Kroes, i.e. not to create acceptance but to achieve acceptability. According to Gregorowius, the motivation of the citizens and stakeholders, the transparency and fairness of the dialogue, the implementation of expressed requirements as well as the quality and the credibility of the mediation are crucial for the creation of acceptability.

A panel discussion on the key findings and on their practical use for the future closed the symposium.

Markets & Policy

Frank Krysiak, Professor for Environmental Economics at the University of Basel, led the workshop “Markets & Policy”. He presented his interdisciplinary research concerning the search for markets for renewable energy and the development of market simulation models. Krysiak points out that the next few years will be decisive for the further market development. Hannes Weigt, Professor at the University of Basel, presented different models that are currently being developed in order to simulate the energy market at different market levels. The researchers hope that these models will later serve to predict effects and calculate costs of legal and technical measures. The use of different models will ensure accurate and conclusive results.

Firms & Regions

The participants of the workshop “Firms & Regions” were asked to actively take part in three different discussions led by Moritz Loock, Silvia Ulli-Ber, Yann Blumer and Devon Wemyss. One of the questions raised during a discussion was, where the potential needed for the energy transition could come from. On one side, innovative start-ups are expected to contribute to the energy transition. Particularly because large companies are more likely to maintain their successful and proven strategies and therefore will continue doing what they have always done. On the other side, a concern expressed during the discussion was, that small firms may not reach enough power to compete against large established companies. In another discussion, a model illustrating all the actors involved with the energy turnaround was presented and discussed.

Householdes & Individuals

Households & Individuals was the title of the workshop on change of behavior led by Prof. Paul Burger from the University of Basel and Prof. Stefanie Hille from the University of St. Gallen. In a brief introduction to the research of SCCER CREST, Hille made clear that it is important to raise people’s awareness not only on direct but also on indirect energy consumption. According to her, in order to save energy, a change in behaviour of households and individuals is required, since their consumption has increased considerably in the last few years. Following this brief introduction, researchers of different fields presented their work on change of behaviour. The goal of one project was to analyse the cognitive and affective determinants of individual energy-related decisions facing an experimental risk. The project detected the following energy consumption drivers: availability of energy, the framing in terms of gains and losses, the environmental values and experienced environmental emotions. Another project analysed the influence of the use of absolute and relative energy labels of cars. The project’s findings were that absolute labels, which neglect a cars weight, lead to a lower energy consumption of individuals. This is due to a wrong impression given by relative labels.

Social Acceptance of Hydro energy

As the title “Social acceptance of hydro power” suggests, in this workshop representatives of different institutions presented their hydropower projects and explained the respective degree of social acceptance.

The workshop was hosted by Prof. Hettich and Dr. Ivana Logar, Group leader in Environmental Economics at the Eawag aquatic research. After a brief introduction, Martin Bölli from the ISKB (Interessenverband Schweizer Kleinkraftwerk-Besitzer) talked about small hydropower plants in

Switzerland. First, Bölli made clear that there is a large number of small hydropower plants in Switzerland, which all together produce slightly more power than the NPP Mühleberg. According to him, the opinion on and the social acceptance of small hydropower plants heavily depends on personal feelings. He gave an overview on the stakeholders of small hydropower plants and defined three main groups of stakeholders: The public sector, the private sector and associations such as NGOs and foundations. These groups of stakeholders have different attitudes towards hydropower, which also vary within the groups. In general, one can say, that large hydropower utilities and large associations are against small hydropower plants while the private sector support the intentions in this area. According to Mr. Bölli, the opinions of the other groups of stakeholders are divided.

Christian Durpraz of the the confederation talked about the requirements in order to extend the production of hydropower in Switzerland. According to him, the extension of hydropower production requires potential, an economic viable project and the governmental authorization. Mr. Dupraz states that in his experience hydropower is well accepted both at local level as well as in general.

Before the discussion on the key findings of the acceptance on hydropower was opened, Reto Denoth from the canton St. Gallen described the concession process. By means of some practical examples, Mr. Denoth emphasized the importance of social acceptance for the implementation of hydropower projects.

Social Acceptance of Wind energy

Harry Spiess, Professor for Sustainable Energy Systems at the University of Applied Sciences Zurich, spoke about his research project “Windenergie am Beispiel Goms”, which aimed to find the factors of the acceptance of wind energy projects. After that, Dionys Hallenbarter presented “Energierregion Goms”, an association that tries to establish sustainable and decentralized energy production in the Goms region. The projects range from energy production with water and sun to wind and biomass. Hallenbarter focused on wind energy and explained the challenges and the measures taken in order to increase the social acceptance of wind energy projects. Eventually, Peter Sutter, CKW, spoke about the wind energy projects realised by CKW in Entlebuch. He described the process required as well as problems and questions, which arise when planning such projects. Furthermore, he emphasized the importance of including the population, the authorities and environmental organisations at an early stage.

Social Acceptance of Power Grids

The workshop moderated by Sebastian Heselhaus focused on the social acceptance of new power grids. As new power grids are operated at high voltage and therefore emit more electrical radiation than common powerlines, they require larger cables and higher power poles. These facts are likely to raise concerns and fears in the population. It was therefore stated during the discussion, that the population should be informed and involved at an early stage of the planning of new power grids. Concerning the introduction of new power grids, other problems such as the lack of a legal framework and the duration of up to 30 years to build new powerlines were mentioned.