

Energy Transition & Sustainable Consumption Workshop, Luxembourg – Post Workshop Report 2015



Energy Transition & Sustainable Consumption Workshop Luxembourg, June 26-28, 2015 Post-Workshop Report Finalized September 2015

Workshop Summary

The goal of this workshop was to explore opportunities created by the renewable energy transition to encourage more sustainable lifestyles through cultural change and reduced consumption. While the notion of an energy transition generally focusses on shifting energy supply to meet an assumed level of demand, this workshop was designed to open up the black-box of energy demand and consider deep social and cultural changes involving dramatically reduced expectations for consumption. The focus was not simply on the potential for changing assumptions about consumption of electricity but also assumptions regarding consumption of all goods, services, and activities that require energy. The workshop discussion built on the implementation of ambitious energy transition commitments in several places in the world including the German *Energiewende* and the US state of Vermont's ambitious renewable energy goal. Juxtaposing Europe and the United States led to rich insights on the complexities of how culture, politics, and institutional dynamics align to create opportunities and challenges for transitioning toward sustainability.

This diverse group of scholars challenged each other to think about energy transitions and sustainable consumption in new ways. Several specific areas emerged from the workshop in which energy transitions and sustainable consumption have particular overlap and potential opportunities. These include: (1) institutional change – changing institutions through top-down and bottom-up dynamics; (2) framing of energy transitions; or the narratives guiding them; (3) transportation - changing expectations for transport and social and cultural change in transportation, (4) the prosumer - opportunities for social and cultural change and reduced consumption emerges when people are more connected and engaged in the energy system by producing their own energy, and (5) embodied energy – increasing consideration of the energy of material goods.

Participants of the Energy Transition & Sustainable Consumption Workshop, Luxembourg



Name	Institution	Country
Halina Brown	Clark University	USA
Aleh Cherp	Central European University	Hungary
Maurie Cohen	New Jersey Institute of Technology	USA
Bert de Vries	University of Utrecht	Netherlands
Audley Genus	Kingston University	UK
Cindy Isenhour	University of Maine	USA
Florian Kaiser	Otto-von-Guericke University Magdeburg	Germany
David Levy	University of Massachusetts-Boston	USA
Derk Loorbach	Erasmus University	Netherlands
Robin Miller	Clark University	USA
Ortwin Renn	University of Stuttgart	Germany
Jens Schipple	Karlsruhe Institute of Technology	Germany
Miranda Schreurs	Freie Universität Berlin	Germany
Pia-Johanna Schweizer	University of Stuttgart	Germany
Jennie Stephens	University of Vermont	USA
Philip Vergragt	Tellus Institute	USA
Richard Watts	University of Vermont	USA
Thomas Webler	Western Washington University	USA
Elizabeth Wilson	University of Minnesota	USA

Workshop Structure

The workshop brought together an international group of eighteen leading scholars from a variety of disciplinary perspectives whose research contributes to connections between energy system transitions and sustainable consumption. This two-day workshop was sponsored by SCORAI (Sustainable Consumption and Research and Action Initiative) in cooperation with the [Henry J. Leir Luxembourg Program](#) at Clark University, the University of Vermont, and the [Helmholtz Alliance ENERGY-TRANS](#). The workshop, which was held June 26-28, 2015 at the [Centre de Formation et de Seminaires](#) (CEFOS) in Remich, Luxembourg was organized by Halina Brown (Clark University), Jennie Stephens (University of Vermont), Philip Vergragt (Clark University and Tellus Institute), and Ortwin Renn (Stuttgart University and Helmholtz Alliance Energy-Trans).

The workshop consisted of six distinct sessions. The opening session (led by Jennie Stephens, Halina Brown, and Philip Vergragt) set the scene for the discussions and sought to establish a framework for discussion by elaborating on the guiding question - What opportunities does the energy transition create for changes towards more sustainable lifestyles and consumption patterns? The second session focused on framing and governing the energy transition and included presentations by David Levy (University of Massachusetts at Boston), Aleh Cherp (Central European University), Pia Johanna Schweizer (University of Stuttgart), and Bert de Vries (Utrecht University)). The third session took up challenges and opportunities of engaging the public and policy makers with contributions by Maurie Cohen (New Jersey Institute of Technology), Derk Looibach (Erasmus University), Thomas Webler (Western Washington University), and Miranda Schreurs (Free University of Berlin). The fourth session, which started off day-two of the workshop, focused on consumers' choices and transportation including presentations by Florian Kaiser (Otto von Guericke University Magdeburg), Richard Watts (University of Vermont), and Elizabeth Wilson (University of Minnesota). The fifth session shifted attention to institutional innovations with contributions by Audley Genus (Kingston University), Cindy Isenhour (University of Maine), and Jens Schippl (Karlsruhe Institute of Technology). In the final integrated discussion session, each participant offered reflections on synthesis and future directions.

Emergent Themes at the Intersection of Energy Transitions and Sustainable Consumption

Among the many valuable conversations and contributions to the workshop, a few specific themes emerged with particular salience for connecting energy transitions and sustainable consumption research. These include: institutional change; framing and narratives, transportation, the prosumer, as well as consideration of embodied energy in products.

Institutions: The potential of institutional change came up repeatedly. Specifically, it was acknowledged that current institutions are being challenged by new energy technologies and infrastructure, by new consumer expectations, and by grassroots innovations in ownership and management of electricity generation. Existing institutional structures and processes are often not set-up to facilitate the changes that are possible. This is an interesting avenue of research to pursue in the context of Germany, Vermont and other places. Potential research questions in this area relate to considering how institutional innovations in the electricity sector might be applied in the transportation sector. A related question is if and how institutional change could affect the current information asymmetry of consumer energy use data (in the US, as a matter of policy, the utilities do not disclose consumption information to energy planners and researchers). Questions of power struggles, changing power relationships, and inclusion/exclusion undergirds all of these considerations of institutional change.

Framing of energy transitions: Understanding framing and the associated narratives of energy system transitions is another fruitful area for further research. The German experience with *Energiewende*

Energy Transition & Sustainable Consumption Workshop, Luxembourg – Post Workshop Report 2015

demonstrates how framing evolves over time - from anti-nuclear to climate change mitigation - and how the process legitimizes various policies, civil society initiatives, business ventures and cultural understandings. The case of Vermont may be a useful example of a focused energy transition narrative that has strong influence on future visions and policy options. Research on framing and narratives can bridge the topics of institutions, prosumers, political landscape, power relations and cultural/lifestyle change, and connect with research on social learning. Studies of narratives of change need to focus on who is included and excluded in the narrative and in the formation and distribution of the narrative; and research connecting to social learning should consider what has been learned and by whom.

Transportation: Of the three major energy sub-systems of heat, light, and mobility, it is mobility - transportation – that in many respects seems to be the most difficult to change. Substantial changes in transportation, particularly the dominant car culture of the United States, was, therefore, identified as a particular opportunity for cultural change in expectations and assumptions regarding how people move around. The workshop discussion emphasized localized decision making in connection with state mandates.

The Prosumer: Another emergent theme was that opportunities for social and cultural change and reduced consumption emerge when people are more connected and engaged in the energy system. One key way that people become more connected and engaged is through producing their own energy in their household or in their local community, relating to the notion of prosumers. Research in this area is closely connected with such topics as intrinsic motivation, access points for behavioral change, and attitudes toward the sharing economy. Another avenue of research involves identifying existing patterns of values and belief systems (i.e. worldviews), and evaluating energy transition initiatives with regard to the sense of support across plural worldviews. More generally, public participation in decision making was discussed as well as the importance of addressing “consumption junctions” where consumption and production meet.

Embodied energy: Expanding the notion of embodied energy and carbon leakage in energy transitions has potential to encourage less-consumptive life-styles. Integrating greater consideration of the energy of material goods into energy system change is important, so that the energy required to manufacture and transport products is not displaced to other places.

Follow-up and Next Steps

The workshop concluded with general agreement that additional comparative trans-Atlantic research would be valuable along the lines of the ideas articulated above. Further discussion would also be fruitful on how to facilitate social learning at the interface of consumption and energy. Many new professional connections were made during the workshop, and participants are following-up with each other and building on what was learned in multiple ways. To continue the momentum and to move beyond these initial conversations, another workshop with a similar theme but more focus on of the ideas and research opportunities highlighted is being considered. In addition, a session or a string of sessions is being planned for the second international SCORAI conference, to be held at the University of Maine in June 2016. For more details about the conference please visit www.scorai.org.

Acknowledgements

The conference organizers and participants are grateful for the detailed logistical support provided by Uwe Gertz, the coordinator of the [Henry J. Leir Luxembourg Program](#) at Clark University and Robin Miller, a graduate student at Clark University.