

Renewable energy supplying cooperatives, citizen-led initiatives and their involvement in the governance of sustainable energy systems (1)

Chairs

Thomas Hoppe, Frans Coenen

Presentation 1

Consumers versus prosumers: using a storytelling approach to understand consumers' attitudes towards business models in energy storage

Keywords: energy storage, consumer engagement, storytelling, prosumer

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Abstract

Consumer perceptions, behaviour and practices are important for the design of successful business models for energy storage. This paper reports the results of workshops with consumers in Sweden at an early stage of the development of energy storage projects, in order to understand their needs (e.g. flexibility, affordability) as well as preferences in relation to different business models. A key issue in this regard is the role assigned to consumers in business models – such roles range from the (current) mostly passive use of energy, through to an active prosumer role, where consumer-citizens are engaged in energy production, consumption and distribution. Here we used a storytelling approach, increasingly discussed in the energy social science community as an innovative methodology for engaging people more deeply and hence uncovering the details of relevant attitudes, behaviours and practices. Findings from the study show heterogeneous results with regard to residents' perceptions of the prosumer concept presented in business models on

energy storage in particular and the future of energy systems in general. Two contrasting motives seem to underlie residents' decisions on energy storage facilities in their apartments: (1) the desire to be independent - being this in the sense of being independent as a community from energy suppliers, or in terms of individual independence; and (2) the need for a 'comfortable' version of energy storage, in which users' needs completely taken care of. We observe that the latter motive departs markedly from the idea of active prosumers. In addition, the results reveal another factor that could drive the change towards shared energy systems: social sustainability and the need for increased social belonging in our currently rather isolated and/or individualized societies. In this regard, several residential participants associated the new, shared energy system with an improved sense of community.

Presentation 2

Placing citizens at the heart of the energy transition in Europe: the role of prosumers.

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Keywords: *renewable energy sources; active consumer; interdisciplinarity; social innovation; sustainability transition*

The European Union (EU) is committed to a low-carbon transition as part of the global climate change mitigation effort. To fulfil the EU's goal of providing "Clean Energy for All Europeans", a transformative shift of the energy market from centralised systems based on fossil fuels to decentralised small-scale systems based on renewable energy sources (RES) is needed. Citizens have thus been placed at the core of the Energy Union. This paper offers a preview into the first results of a European-wide research project (PROSEU) that highlights the role of citizens who actively participate in the market, in particular those that produce and consume energy from renewable sources, referred to as RES prosumers. The research builds on an interdisciplinary, multi-method perspective that considers the current legal and policy frameworks, types of governance and business models, RES technologies and financing choices facing RES prosumer initiatives. It also assesses the democratic quality of the so-called prosumer phenomenon (e.g. what it means for issues of participation, inclusiveness, gender and transparency in energy markets). Res prosumerism, especially in its collective form, is expected to be a key success factor in achieving a clean and fair energy transition. The paper provides an overview and current state of the phenomenon of RES prosumerism across eight European member states. The insights are based on documental research, expert interviews and initial findings from an on-going wide-scale survey on RES prosumer initiatives. This survey aims at uncovering not only the socio-cultural make-up of RES prosumer initiatives but also their enabling factors and challenges influencing their development.

Presentation 3

Mainstreaming Social Innovation for Transformative Change: a Multi-Actor Perspective on Prosumerism

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Keywords: social innovation, energy prosumerism, multi-actor perspective, mainstreaming

Abstract:

Innovation policies focus more and more on the social dimensions and take up social innovation to shape society (Fougère et al. 2017, Schubert 2017). The discourse and practice around energy transition(s) is not an exception. We approach social innovation in terms of changing social relations, involving new ways of doing, organising, knowing and framing, which is transformative to the extent that it challenges, alters and/ or replaces dominant institutions in the social context (Avelino et al. 2017, Haxeltine et al. 2017). An important element of such institutional change concerns the processes through which innovations ‘mainstream’, ‘grow’ and/or ‘gain impact’. These are variously (originating in different theoretical perspectives) referred to as mainstreaming, diffusion, scaling, embedding, translating etc. This paper aims to contribute to the understanding of such processes by applying a Multi-Actor Perspective (MaP) to unpack how ‘mainstreaming’ of social innovation manifests across different institutional contexts.

Building on the Welfare Mix model in Third Sector studies (Evers & Laville 2004, Pestoff 1992), the MaP distinguishes between four ‘institutional logics’ - state, market, community, third sector (Avelino & Wittmayer 2015). These ‘institutional logics’ are not fixed entities and the shifting relations between and within sectors, and the redefinitions of the boundaries between different institutional logics, can be considered as a manifestation of transformative social innovation in itself (Nicholls & Murdoch 2012; Pel & Bauler 2015). Taking the empirical case of energy prosumerism as illustration, this paper specifies processes of ‘mainstreaming’ of social innovation across different institutional logics, including: formalisation and bureaucratisation (state logic), commercialisation and marketization (market logic), as well as normalisation and communitisation (community logic). Each of these processes carries a number of political tensions and paradoxes regarding innovation capture versus transformative impact. This conceptual contribution is based on the review of scientific and secondary literature as well as expert interviews.

Presentation 4

Does community energy facilitate energy democracy? A cross-national, empirical study Authors:

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Abstract:

Whether low carbon energy transitions are characterised by efforts to promote social inclusion and civic participation – what has been termed ‘energy democracy’ - has become a significant topic of research in energy social science. Furthermore, research on community energy has long been concerned with ways in which grassroots energy initiatives lead to citizen involvement and shared local benefit. Yet, there is a dearth of cross-national, comparative research that reveals the motivations and levels of participation of those involved in community energy. This paper addresses these gaps using survey methods to collect data from members of two energy cooperatives, one based in the South West of England (n=101) and the other based in Flanders, Belgium (n=222). First, we examine actual past behaviours of participation as well as intentions to participate in the future. Second, we study the factors likely to explain why some members engage in participation behaviours more than others. We find that the level of participation beyond financial investments is generally low, challenging the associative model traditionally advocated by energy democracy proponents. We also show that the most important factors for engaging in participation behaviours in energy cooperatives are of a social nature, in contrast to previous studies suggesting the importance of environmental motivations for joining community energy initiatives.