

Nina Möllers and Karin Zachmann (eds.)

Past and Present Energy Societies: How Energy Connects Politics, Technologies and Cultures

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There is much focus today on the “next big energy transition”, mostly defined as a transition away from the prevailing fossil fuel base of most energy systems in the world. This potential transformation can imply a more sustainable resource base, or the change from a high-energy society to a low- (or just less high) energy society. The concept of an energy transition is in itself nothing new; it has been used to describe earlier changes from for example wood to coal and in connection to the nuclear debate. However, the contemporary discussion often fails to historicize the concept in itself and its different meanings over time. Historical knowledge is also seldom used to unpack the complex processes, politics and artefacts that make up the diverse energy systems globally in the framework of the contemporary discussion.

The book *Past and Present Energy Societies: How Energy Connects Politics, Technologies and Cultures* edited by Nina Möllers and Karin Zachmann, brings history into this discussion. It gathers authors from the humanities and social sciences to investigate how “energy concatenates politics, technologies and cultures”, providing a basis for reflection on the complex relationships between energy and society in relation to possible future transitions. The volume gathers ten chapters into three themes: 1) Cultural Representations of Energy, 2) Energy Consumption Practices and 3) Societal Perceptions of Energy Resources.

In the first chapter, Nina Möllers analyses energy-related displays at world's fairs, showing the changing views of energy (predominantly electricity) in society. She highlights how a prevailing energy narrative of abundance and connection to economic growth has been perpetuated at these world's fairs. Even when this narrative was challenged in relation to the energy crises through the 1970s, the displays did not question the overall narrative, nor did they urge a change in consumption patterns. Instead they prolonged a technocratic narrative concentrated on a “technological fix”.

Sophie Gerber follows with an analysis of marketing strategies of power companies in Germany throughout the 20th century, describing how these strategies became a “crucial element and condition of the electrification and mechanization of households”. The advertisements show discourses and conflicts that arose around electrification, making it clear that the introduction of this new technology was not in any way a smooth and predictable process.

Electricity advertisements are also the focus of Yves Bouvier, in his study of promotional films from the French electricity company *Électricité de France* (EDF). He shows how electrical appliances went from being central characters in these films during the 1950s and 1960s, to being replaced by a more consumer based narrative of energy saving during the 1970s and 1980s, only to return in the 1990s. In addition to showing how prevailing narratives of energy during different time periods are played out in the films, he also concludes that they both reproduce dominant energy narratives and partakes in the social construction of the relationships between consumers and electricity itself. This conclusion is valid for all the contributions in this first section, which provides an interesting comparison of energy narratives reproduced through cultural representations. Especially important is the contribution to visual representations of energy cultures, as these representations tend to be left aside in many analyses.

Although the first section is preoccupied with consumers and consumerism, it deals mainly with representations of consumers from the side of companies and exhibit constructors. The second part of the book delves more deeply into the practices of energy consumption, starting with Nina Lorkowskis study of the rental business of storage water heaters in Berlin in the 1920s-1960s, and how it led to changes in electricity consumption patterns. Lorkowski brings to attention both the "projected consumer", imagined by engineers at the electricity company Bewag, and the actual practices of the consumers. She shows how the installation of water heaters connected directly to ideals of hygiene by making it possible to take baths more often, and how new hygiene patterns were co-created by consumers and engineers. The water heater is described as a "Trojan horse" into the households, making it possible for companies to change electricity consumption patterns. Lorkowski draws an interesting parallel to today's household introduction of smart meters.

Mathias Mutz focuses on the introduction of Daylight savings time (DST) in East and West Germany, and its connection to discourses of energy saving. He concludes that although the passage to DST has been framed as an effort to save energy, this framing is simplified. Issues connected to leisure, quality of life and individualization were central in the debate, while the energy issue served as a background to discuss these matters. Mutz thereby shows the complex way that energy problems are integrated in broader societal and political discourses.

A different political perspective is given by Karl-Michael Brunner, Anja Christanell and Markus Spitzer, dealing more specifically with social inequality and consumer practices in a contemporary setting. Starting from the notion that energy consumption patterns can put a spotlight on social inequalities, not only on a global scale but also within countries, they present a case study based on in-depth interviews with members of poverty-stricken households in Vienna about their energy consumption patterns. This study stands out in the volume due to its contemporary and anthropological rather than historic nature. While the subject matter is

pressing and the political intent is laudable, its place in the volume is not completely clear.

While the first two parts of the volume focus on electricity, the third part is more diverse, including other energy carriers and sources. This part suffers from a certain lack of coherency, but nonetheless includes interesting cases, starting with Helena Ekerholm's study of the use of wood gas as automobile fuel in Sweden around the time of the Second World War. She highlights how promoting actors did not manage to make wood gas an alternative to petrol in the minds of the consumers. This was partly due to technical problems, but even more to the view of the fuel as non-progressive and a necessity during the war more than a viable choice for the future. Petrol, on the other hand embodied the ideal of modernity connected to the automobile expansion, and soon regained its place on the market after the end of the war.

Valentina Roxo adds an explicit environmental perspective when she demonstrates the lack of environmental discourse surrounding the oil extraction in Western Siberia. She shows how environmental problems have been blindsided by the discourse of economic profit and technological progress in the Russian debate about resource extraction. Even when critical voices have been raised in the political discussion and institutions for the protection of nature have been created, this has had practically no consequences for policy practice in the extraction areas. The complex relations between extractors and the people living in the area are also brought to the fore.

Thomas Moe Skjøldsvold turns our attention back to Northern Europe in his chapter on the Swedish and Norwegian discussion on bioenergy use. He focuses on how promoting actors within the field have imagined their "public's" view of bioenergy. The discussion is an interesting theoretical complement to the discussion on marketing and images of the consumer projected by energy companies. Skjøldsvold shows that the imagined responses of different publics on bioenergy have had real effects in the strategies of public engagement from the side of the bioenergy actors. This shows the importance of imaginaries for the practices of energy producers as well as consumers, adding an important dimension to the earlier studies in the volume dealing with cultural representations of energy and energy practices.

As a final contribution, Silvana Bartoletto writes an overview of the connection between energy and economic growth in a long-term perspective, showing four general phases of different relationships between energy and growth.

The introduction states that the book is meant to "contribute to the current scholarly energy debate by shedding light on the political, technological and cultural premises of the high-energy society and its capacities of transitions". As it stands, the book focuses more on the premises of the high-energy society and changing perceptions and uses of energy over time than on practical capacities for transition. Several contributions un-

derline and show the social construction of energy societies, but we are left with very little in terms of alternatives in the end, especially with regard to different political or market organization. However, this is perhaps not surprising considering the predominantly historical perspective.

Nevertheless, this volume is a great contribution to the field of energy history and provides the reader with many useful and enlightening case studies. I especially want to underline that certain contributions will be excellent as readings for university education dealing with social and historical perspectives on energy discourses in production, consumption and culture.

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Ronald Leenes and Eleni Kosta (eds.)

Bridging Distances in Technology and Regulation

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The recent history of technology is characterized by a significant degree of regulatory pluralism. As a rough approximation, this growing pluralization is the consequence of two intersecting processes. Firstly, the fundamental transformation induced by globalization affects the previously unchallenged role of the nation state in setting regulations domestically through traditional command-and-control mechanisms and internationally through the forms of international public law (Ferrarese 2000; Malsch 2013, with a reference to S&T) and opens up the regulatory space to non-state actors. Secondly, in emerging technological fields that are characterized by a high degree of uncertainty regulators lack the resources or information needed to develop sound “discretion-limiting rules” of mandatory nature (Dorbeck-Jung and Shelley-Egan 2013). As a consequence, new regulatory instruments complement traditional hard, mandatory regulation. Soft regulation is typical of this context and it constitutes a tool for leveraging the information advantages of those actors to be regulated. In this broad picture, space opens for other forms of normativity. Such normative but extra-legal aspects enter regulation especially through the science advisory system (Tallacchini 2010), and instruments and mechanisms such as ethics advisory committees (Tallacchini 2009, Mali *et al.* 2012) and technology assessment (Rip *et al.* 1995).

As far as high scientific uncertainty pushes “regulatory decision-making into a more political direction” and thus requires “the weighing up of sometimes competing values” (Falkner and Jaspers 2012), the reli-