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ENERGY POLICY

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HIGHLIGHTS

• The case study is the Le Mené, a pioneer case for local energy autonomy.

• This case is an emerging grassroots innovation in France.

• Hybridisation (combining diversity and frames) is at the centre of the innovation.

• This study focuses on the hybridisation of actors, sociotechniques and discourses.

• Examines the potential diffusion of grassroots initiatives in France.

ARTICLE INFO

Article history: Received 19 November 2013 Received in revised form 10 February 2014 Accepted 11 February 2014 Available online 7 March 2014

Keywords: Grassroots innovations Local energy autonomy France

ABSTRACT

Local citizen-led initiatives relating to energy are developing strongly in Anglo-Saxon countries and a growing body of research is examining their innovative potential. In France, similar grassroots initiatives – albeit with certain specificities – only began to emerge recently and so far, very few studies have dealt with them. The purpose of this article is to propose an exploratory and in-depth analysis of one advanced French case: Le Mené, a pioneer in local energy autonomy. We examine the conditions under which the initiative emerged and the processes through which a grassroots innovation is formed. In studying this case (interviews, analysis of documents), comparing it with other sources of data (expert interviews, comparative observation of other initiatives) and taking stock of various social sciences studies, we show that a social innovation was produced in Le Mené through the hybridisation of actors, sociotechniques and discourses. This initiative was innovative not only in terms of the scope of the mechanisms implemented, but also in terms of the social organisation behind the development of the projects and the capacity to use energy production as a social resource. Finally, we reflect on the possible diffusion of these grassroots initiatives and their policy implications in France.

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1. Introduction

Local and citizen-led initiatives relating to energy (renewable production, energy efficiency, energy sufficiency) are developing strongly in Anglo-Saxon countries (United Kingdom, Germany, Austria, Luxembourg) and a growing body of research is examining the innovative potential of these grassroots initiatives known as "community energy" (Seyfang and Smith, 2007; Walker and Devine-Wright, 2008; Hielscher et al., 2013). Yet this kind of initiative is not common in France. Nadaï et al. (2012a) point to approximately 10 local experiences distributed over 9 French regions. Although these experiences are few and far between, they often have a significant reach in terms of models for the future of energy, such as finding alternative models for renewable energy project development, becoming (co-operative) actors in the electricity market or anticipating emergent markets (rehabilitation of individual housing). In this article, we explore the emergence of one of these initiatives (Le Mené) in France, a country where the energy market is highly concentrated and where policies generally remain top-down.

The French macro-sociological context is that of a very centralised and oligopolistic energy system. Two main companies share the network energy market (gas and electricity): EDF (Electricité de France) and GDF (Gaz de France), which up until

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2008 were a single company. Since 2007 the market has been open and other companies have arrived on the scene, though they have few customers and they essentially use energy production and distribution methods dating back to the 1946–2007 period. Electricity represents half of the country's energy consumption, across all sectors. Nuclear power accounts for approximately 75% of France's electricity production (www.edf.fr). The energy system thus remains highly centralised and linked to the two historical networks – gas and electricity of nuclear origin.

Public policies are also very much linked to this sociotechnical past (Brugidou and Garabuau-Moussaoui, 2013). Managed in a top-down manner and based on very large production units with a high level of sophistication, this technical macro-system (Gras, 1993) leaves little room for local production initiatives. Even if more recent political measures tending towards decentralisation are designed to encourage regions to take the energy challenge on board (such as the Regional Climate Air and Energy Schemes or the Local Climate Action Plans (Binet and Eiller, 2011; Yalçın and Lefèvre, 2012), most are the local translation of a national public policy).

In relation to this specific context, Nadaï et al. (2012b) highlighted the limited development of French academic literature on the subject. Analyses of local issues in the climate-energy field have mostly focused on the state of implementation of climateenergy policies or on the role of local authorities and local energy producers. French research is initially directed towards an indepth and exploratory analysis of each emerging initiative. When several monographs have been produced, we might hypothesise that research will examine the more general mechanisms and will be able, for example, to ask whether these initiatives are innovation "niches" (as is currently the case in the UK) (Smith, 2012). Positioning ourselves within this initial monographic phase, we have chosen to study one specific project: the energy autonomy initiative by Le Mené, a French rural territory engaged in numerous energy-related projects.

We make the hypothesis that in the French context, this local energy initiative, driven by local actors and by the "civil society" in particular, is a form of sociotechnical innovation. We examine on what foundations this initiative is based, what specific forms are being developed and what aspects of the project are innovative.

The study reveals the importance of the hybridisation of the discourses, actors and mechanisms as the driving force behind the sustainability of the initiative – that said hybridisation being based on a balance between framing and diversity. It points out to the construction of a founding myth based on a mobilisation history and a charismatic leader, the capacity to unite different kinds of actors and skills and the multiplicity of the sociotechnical projects focused on one central issue - energy. This local initiative is innovative not just through the scope of the mechanisms which are implemented, but also via the social organisation behind the development of the project and through the capacity to use energy production as a social resource, particularly with a view to bringing value to the territory. Whilst Le Mené's objective was to achieve energy autonomy, above all else the territory earned the status of innovator among people involved in less advanced projects and a more positive image within the region.

2. Case study and methodology: an exploratory study of a pioneer in local energy autonomy

Our case study examines one of the most advanced French initiatives that might be considered as a grassroots innovation. Le Mené is a French rural Communauté de Communes (CdC, community of municipalities)¹ and is a pioneer in local energy autonomy.² The CdC is engaged in numerous energy-related projects (methane plant, oil mill, wood-fired heating plant and network, participatory wind energy, low-energy buildings, incubator for companies dedicated to renewable energies and eco-construction, etc.).

The multiplicity and the diversity of local actors involved make this case highly relevant to empirical study within the framework of grassroots innovation research. In addition, Le Mené's initiatives have a relatively long history and tangible outcomes. This case can thus be analysed with some hindsight. Finally, Le Mené's actors are keen to share and advertise their experience. This had two implications for our research. Firstly, their initiatives were relatively well documented. Secondly, they were willing to participate in the research project and to be interviewed. To explore this case, we conducted a qualitative study using written sources, interviews with experts and semi-directive interviews.

Because French literature on energy-related local initiatives is in an emergent state, publications in this field are still rare. However, some researchers are working on related areas. We therefore carried out an initial round of interviews with five social scientists working on France (some have also worked on the UK). The choice of experts was designed to identify themes which might fuel the issue of grassroots innovations: political consumerism; "radical" groups advocating behavioural changes in relation to climate change; contemporary social movements; studies relating to the notion of community, grassroots actions and environmental activists. This allowed us to compare our emergent subject with similar areas of research.³

The second stage involved a field study in Le Mené. Nine indepth interviews were carried out with Le Mené's elected officials and members of associations (pioneering actors). All pioneering actors cited in the article were interviewed by the authors, with the exception of D. Rocabov (see below), whose public interviews were used. Some inhabitants involved in energy projects and one intermediary actor, who works for the CLER association (Renewable Energy Liaison Committee) that created a network of rural actors interested in energy initiatives,⁴ were also interviewed. The interviewees were mostly questioned about the roles they played in Le Mené's energy autonomy project (practices, motivations, challenges faced) as well as their social relationships, opinions and values. Finally, our study was completed using publications (newsletters, leaflets, etc.) from the Le Mené CdC and numerous reports and recordings of events (study trips, encounters, etc.) organised within the Le Mené region.

3. Literature review and research questions: hybridisation between framing and diversity as an innovative mechanism

The issue of local energy initiatives has been raised and discussed in Anglo-Saxon literature (especially in the UK), but remains sparse in France. A review of the literature from both countries is required in order to take account of theoretical international progress and of the specificities of French initiatives.

The literature on community energy mainly studied the distinctive characteristics of community projects and technology

¹ In France, municipalities can choose to group together to exercise a certain number of competences on the members' behalf (economic development, town and country planning, environment, roads, sports and cultural infrastructures, etc.).

² Its autonomy targets include direct consumption by industry (excluding transportation of goods) and consumption by inhabitants within the territory (including electricity, heating and mobility). It aims to increase the share of renewables in total energy consumption to 25% by 2013. 75% should be achieved by 2020 and renewable and local energy production should exceed consumption by 2030.

³ Findings from this first set of interviews have been reported in Moussaoui (2011).

⁴ The TEPos network http://www.territoires-energie-positive.fr.

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