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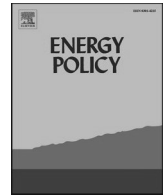
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A typology of community-based energy citizenship: An analysis of the ownership structure and institutional logics of 164 energy communities in France

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ABSTRACT

Energy scholars have associated energy communities with the notions of energy citizenship and energy democracy, as citizen-based democratic governance plays critical roles in their organizational models. However, these roles have recently been challenged by the growing involvement of diverse actors, including businesses and state authorities, in the governance of energy communities. Limited evidence exists of how this evolution has impacted the form and degree of citizen engagement in these organizations. This paper addresses this gap through an analysis of 164 French energy communities. We identify the following four energy citizenship configurations: full citizen ownership, shared citizen ownership, citizen crowdfunding, and civic participation. Then, we analyze their ownership structure and institutional logics. Our results indicate that models characterized by strong citizen engagement in ownership and a strong community logic dominate the French energy community landscape. Furthermore, the community logic is still prominent, even in models where citizens are less central. This suggests that the increasing involvement of other actors in energy communities has not fundamentally threatened such an organizational form as a vehicle for energy citizenship in the French context. Lastly, the paper identifies policies to encourage a variety of energy citizenship models and generalize meaningful citizen engagement.

1. Introduction

The development of renewable energy (RE) sources in recent years has significantly changed the energy landscape, with a rise in local and small-scale low-carbon technologies (Alanne and Saari, 2006; Berka and Dreyfus, 2021). This evolution has unlocked the possibility for new actors, such as energy communities, to participate in energy production (Bauwens et al., 2016; Hewitt et al., 2019; Wyse and Hoicka, 2019). Energy communities are initiatives where citizens come together to tackle diverse aspects of low-carbon energy transitions, including the development of projects to generate heat and power from RE sources (Bauwens, 2019). Such communities have played central roles in mobilizing financial capital for the transformation of energy systems in several European countries (Kooij et al., 2018; Mey and Diesendorf, 2018; Yildiz, 2014). Moreover, they may also contribute to the local acceptance of RE projects (Bauwens and Devine-Wright, 2018; Berka

and Creamer, 2018). In the European Union, there are more than 10,500 of such initiatives (Schwanitz et al., 2023). By 2050 they could contribute almost two fifths of the electricity produced by citizens (Kampman et al., 2016).

Many proponents of energy communities argue that, in addition to fostering RE development, they play a pivotal role in cultivating energy citizenship and energy democracy (Devine-Wright, 2007; Wahlund and Palm, 2022). The concept of energy citizenship has been coined to move beyond the conceptualizations of people in energy systems as “users” or “consumers” (Devine-Wright, 2007; Islar and Busch, 2016; Ryghaug et al., 2018). This view rests on the assumption that energy communities primarily rely on the voluntary resources of highly motivated and locally based citizens. Energy democracy refers to the concern over who controls the means of energy production and distribution (Szulecki and Overland, 2020). While both concepts have various differences (Wahlund and Palm, 2022), they share the aspiration of an energy system

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