

Abstract

Model of the New Active Customer Relationship Within the Framework of the Energy Communities Defined by the European Union in Catalonia [†]

Eduard Falco-Artieda ^{1,*}, Marina Codina-Escolar ²  and Roberto Villafafila-Robles ² 

¹ Innovation Department, Centre de Telecomunicacions i Tecnologies de la Informació (CTTI), C. de Salvador Espriu, 45-51, 08908 L'Hospitalet de Llobregat, Spain

² Centre d'Innovació Tecnològica en Convertidors Estàtics i Accionaments (CITCEA-UPC), Departament d'Enginyeria Elèctrica, ETS d'Enginyeria Industrial de Barcelona, Universitat Politècnica de Catalunya, 08028 Barcelona, Spain; marina.codina@upc.edu (M.C.-E.); roberto.villafafila@citcea.upc.edu (R.V.-R.)

* Correspondence: eduard.falco@gencat.cat

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The aim of this contribution is to define active customer relationships within the renewable-based energy communities in the EU, and, namely, in Catalonia. This research is in progress and aims to (a) analyse and identify barriers and solutions for the implementation of the new energy system defined by the European Union (EU) in the Catalan reality; (b) explore how to enable the role of active customers through the Catalan Government (Regional Government of Spain, capital of Catalonia, Barcelona) and the tools and systems necessary to implement it; (c) explore how to enable the role of the active customer for citizens (including the domestic environment and companies, realization of the concept of “citizen energy community’s network”, based on microgrids). The results of the project are expected to analyse public innovation policies in the field of creating a truly integrated, consumer-centric, flexible, equitable and transparent digitalized energy system in the EU; analyse the implementation of these European regulations in Catalonia based on the observation of initiatives in the territory, documenting processes, technologies used and solutions; document use cases and the transition from the current energy system model to the new EU model; identify the most common profiles of energy communities; determine the modules necessary to make the solutions of the use cases a reality and compile open-source modules available to provide solutions; make a proposal for application in the Catalan Government environment, in collaboration with the public company Infraestructures.cat and the CTTI as a public technology company that provides digital solutions to the Catalan Government, as well as the rest of the possible agents in the field of regional public administration; make a proposal for specific digital collaboration spaces for citizens and/or Catalan companies that take advantage of this experience and knowledge; identify the funding lines available within the EU framework for public administration or citizen projects (including companies) related to the work line; detect any other entry barriers and obstacles to model change or digital innovation in the transition (procedures, legal or other) and guidance on possible solutions. The final objective of the research is to be able to establish, in the new environment defined by the EU, what the model of technological, economic, and social relationships of active customers (citizens or public administrations) with energy is. This project is aligned with Sustainable Development Goals: 7-Affordable clean energy, 11-Sustainable cities; communities, and 13-Climate action.



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