



The European Commission's clean energy legislation requires flexible electricity markets to be established together with active customers, consumers, citizens and energy communities. The EU-funded BeFlexible project aims to increase the flexibility of energy systems, improve cooperation among Distribution System Operators (DSOs) and Transmission System Operators (TSOs), and encourage all energy-related stakeholders to participate.

This will be done by validating and demonstrating adapted and proven cross-sectoral services as well as interoperable platforms for smart grid operation. The project will also further develop previously demonstrated solutions and build a system architecture framework to create new business models offering extra value in meeting consumer needs.

OUR OBJECTIVES

Design new cross-sectorial business models to **increase flexibility** through the analysis and validation of alternative designs, based on flexibility acquisition mechanisms.



Carry out a **cost-benefit analysis** of flexibility options to ensure **profitable business models and Scalability and Replicability Analysis**.



Define, assess and understand regulatory alternatives based on existing frameworks and the **Clean Energy Package** and Fit for 55 Package requirements.



Foster **local flexibility platforms** in the market domain and **integrate DSO-TSO** coordination platforms.



Contribute and develop recommendations and solutions from different projects and initiatives.



Generate a set of **consumer-centric and grid-centric services** to be designed, deployed and optimised in the different DEMO sites.



Increase consumer engagement and acceptance of the proposed technologies through the integration of energy services as well as other services.



Apply a set of ambitious **exploitation, dissemination, communication and capacity-building activities**, focused on maximising the impact of the project, as well as empowering the consumers towards prosumer scenarios.



The project addresses the natural step that the energy transition requires to achieve the current challenges, to drive this new paradigm in grid operation supported by 4 conceptual blocks:



A Markets & Regulation

BeFlexible will analyze markets and regulations and define a framework of flexibility for new business opportunities.



B Services ecosystem



The BeFlexible project will define a Minimum Viable Products (MVP) for novel energy and cross-sector data-driven digital services, based-on or profiting from local energy and flexibility markets. This will contribute to the creation of additional revenue streams for prosumers and ease

consumer engagement, as well as to foster investments in energy management systems and flexible resources. This open pool of data-driven energy services will be gathered into a BeFlexible open services ecosystem, meeting users' needs and energy stakeholder objectives.

C Platforms & Architecture

BeFlexible will define overarching design principles for the application of digital tools for coordination and data exchanges between grid operators and flexibility assets. These principles will also serve the operation of tools developed within single demos to guarantee consistent project approaches

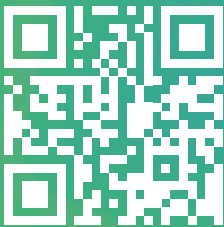
D Customer engagement and social co-creation

BeFlexible will deal with social aspects focused on the value proposition for market actors, design and implement the customer engagement strategies and finally will define the appropriate legal and ethical framework.



The BeFlexible project and concepts will be demonstrated and validated in several and diverse environments, in terms of types of consumers, geographical and climate areas and energy loads. A heterogeneous group of 12 pilots will be deployed in 4 different countries (Italy, Sweden, Spain and France) that have been selected to cover a broad range of energy behaviours consumers and grid typologies and to test the solutions in distinct regulatory environments and in alignment with national plans for the energy transition in 2030.

The main goal of these pilots will be to assess the impact of the services, platforms and architectures, to validate the consumer engagement strategies to enabling a proper interaction among all energy actors and fostering the market uptake. The different pilots are located in 3 different demos structured by climatic areas (South-Mid EU, North EU and South-West EU) covering EU's different representative climates.



www.beflexible.eu



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