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Due to the current energy crisis, the EU is reaching a critical point in the energy transition with the Clean Energy Package. Residential demand response (DR) is a promising approach that can significantly contribute to such a transition, but its potential is yet untapped. DR is the adaptation of the final energy demand in reaction to signals from the energy markets in order to increase the stability of the energy system.

In this framework, DR-RISE's main objective is to demonstrate the benefits of DR in the residential sector, not only for the end-consumers but for the overall energy system and the actors involved and promote it. Accordingly, DR-RISE will further develop a holistic set of tools and services with a twofold objective: increasing energy efficiency via optimal management and demonstrating DR schemes' benefits (not only economic).



DR-RISE project's impacts



SOCIAL

Significant co-design process of the tools with the end-



ENVIRONMENTAL

An Environmental Impact Assessment (EIA) will be carried out to evaluate consequences of the project



ECONOMICA

Economically beneficial for consumers lifestyle and help them reduce their electricity bill

Three use cases



Location: Peón, Villaviciosa, Asturias – Spain

Partners: CTIC

The rural energy community is based in the parish of Peón, situated in the Council of Villaviciosa, Asturias, and it is composed of 5 residential houses, 1 school and 1 office. This pilot's concept is the implementation of DR programs and energy sharing among households. The adoption and usage of connected interoperable energy smart home appliances (including EV charging and home storage) are being promoted to accelerate he deployment of demand-side flexibility services, reduce the entry barrier and facilitate replication.



Location: Athens, Minoan and Samos - Greece

Partners: ELE

ELE is leading the implementation of energy communities in several locations in Greece, Athens, Minoan and Samos. The Greek capital is based on a collective self-consumption project consisting of a 500 kW solar investment that will power 100 households and some small businesses. The Minoan Energy Community will supply more than 150 members, including households, small businesses and public authorities. The Samos Energy Community is the first energy community to be established on Samos. In each one, the electricity produced by one's own solar park is compared with the electricity consumed by one's own household and only the difference is billed.



Location: Borkum – Germany

Partners: IDE

Borkum is a German island located in the North Sea currently pioneering the Energy Transition for European Islands and advancing towards a complete decarbonisation by 2030. Borkum presents a tertiary-oriented demand profile without industry, and a significant green electricity uptake amongst the citizens. The ownership of energy production systems and seasonal heat storage solutions will reduce the dependence on mainland and provide significant energy savings. All smart households and energy systems are optimised to achieve the most costefficient energy management in terms of energy flows. DR solutions are expected to further increase the benefits of the island accelerate the ambitious goal of a zero-carbon island.

DR-RISE partners





























DR-RISE contacts







