

REDYD-2050 Research Network

Research Network on Distributed Energy and Demand Resources for the development of the 2050 Energy Horizon

Objectives

Electricity Networks in the future have to be much more flexible and innovative than in the past, both from economic and technical points of view, because EU energy policy involves a more significant participation of new renewable resources in the generation mix (whereas the power system reduces its flexibility) from 2020 to 2050. In this scenario, without the participation of demand-side resources (DSR), the objectives for renewable share in the power mix will not be credible at least with the same level of network reliability and efficiency that the Power System has in the present.

Horizon 2020 EU work program states that the new integrated energy market will be achieved through the integration of balancing opportunities offered by generation, demand response and storage at different levels and scales. To contribute and facilitate the success of this new market is the cornerstone of REDYD-2050 research network.

The idea of the new REDYD-2050 research initiative is the aggregation of multidisciplinary research groups with experience in these topics to adapt, develop, share, spread and validate: tools, infrastructures and business models of interest for the development of new market architectures and rules. Moreover, it is foreseen to provide the necessary information, opportunities and services to Demand-Side: mainly to consumers and aggregators to engage them in markets (Energy, Capacity, Ancillary Services), and contributing to the development of internal EU markets. Those tools and models should be available in different versions, according to the different public objective (from customers to operators and utilities, and of course, researchers both in Spain and the UE). This will contribute to ensure new opportunities and benefits for consumers and aggregators, and consequently to a fair development of DSR (demand flexibility, energy efficiency and storage, and distributed generation).