Source: Brochure "Good Practice of the Year Award 2017" by The Renewables Grid Initiative, June 2017

The "Good Practice of the Year" is a prize awarded annually by the Renewables Grid Initiative upon recommendation of our jury of experts. In 2016 WiseGRID was chosen as one of the best practices.



Technology & Design

Description

Technology & Design

WiseGRID - Wide scale demonstration of integrated solutions and business models for the European smart grid"

by 21 partner project consortium

The WiseGRID project provides a set of solutions, technologies and business models which increase the smartness, stability and security of an open, consumer-centric European energy grid and provide cleaner and more affordable energy for European citizens, through an enhanced use of storage technologies and electro-mobility and a highly increased share of RES. It aims to deliver the tools and business models that will facilitate the creation of an open market and enable all energy stakeholders to play an active role towards a democratic energy transition.

Highlights

 Development of consumer-centric demand response mechanisms, business models and regulatory recommendations



- Development of advanced monitoring methods of the distribution grid, and utilisation of Virtual Power Plants (VPPs) and micro-grids as balancing assets
- Reduction of generation curtailment without deterioration of quality of supply
- Development of services for charging Electric Vehicles (EVs)

Scope

The project will provide applications for different actors, such as prosumers, DSOs, aggregators and EV fleet operators. WiseGRID technological solutions will be demonstrated and evaluated under real life conditions in four large scale demonstrators – in Belgium, Italy, Spain and Greece – involving more than 1,700 consumers utilising energy systems consisting of batteries, heat pumps, PV, wind and hydro, EVs and charging stations. Following the project's conclusion, the practice will be replicated in other scenarios across Europe. The emergence of decentralised renewable energy sources and their utilisation by nontraditional energy stakeholders (residential, commercial) can enable a gradual transition to a consumer-centric energy market. The idea of the WiseGRID project is to empower and protect citizens on their way to becoming active energy stakeholders, while efficiently integrating large shares of decentralised renewable generation. The project will develop nine ICT tools that will cover operational aspects of DSOs, aggregators, prosumers, EVs, renewable energy, and storage.

Via the implementation of these technological solutions in a suitable energy market, WiseGRID aims to significantly contribute to positive long-term impacts, such as: I) increasing overall efficiency through a holistic approach of the electricity, heat and gas sectors



at consumer level, II) contributing to a 50 per cent renewables share by 2030 and a 20 per cent reduction of CO2 emissions, III) reinforcing the position of the European renewables, storage and EV industry at a global level, IV) contributing to the creation of 1,800 direct and 90,000 indirect jobs.

Additional information

The project consortium is led by the Spanish company ETRA I+D and consists of 21 partners including electric cooperatives, distribution system operators, technological providers, energy providers, legal advisors and research institutes, from Belgium, Greece, France, Spain, Romania, Germany, Italy and the UK.

WiseGRID is still in its infancy, having only been kicked off in November 2016. It is presented in this brochure as an example of an outstanding idea. We hope to present its outcomes in one of our brochures a few years down the line.

More info: www.wisegrid.eu