

PRESS RELEASE

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ENEL X LAUNCHES FIRST PROJECT IN ITALY TO AGGREGATE RESIDENTIAL STORAGE UNITS OFFERING NETWORK BALANCING SERVICES

• The trial is active in the provinces of Bergamo, Brescia, and Mantua

Rome, January 14th, 2020 - For the first time in Italy, residential energy storage systems will be able to offer balancing services to the electricity grid thanks to the experimentation launched by Enel X, the Enel Group business line that focuses on innovative products and digital solutions, in collaboration with RSE (Ricerca Sistema Energetico). The project was launched in the provinces of Brescia, Bergamo, and Mantua and the first residential storage systems were included in the UVAM (Unità Virtuali Abilitate Miste, e.g. Mixed Enabled Virtual Units) aggregates at the end of December 2019.

The experimentation allows for the aggregation of residential energy storage systems in order to enable private users to also participate in active demand management programs through the UVAM aggregates. The latter units allow the distributed resources to participate in the supply of flexibility services to the electricity network; a prerogative that until recently was reserved only for large production plants or industrial loads. With this initiative, the first residential storage systems managed by Enel X, as an aggregator, are also included in the UVAM aggregates within a sort of virtual plant offering network services.

"The potential of this experimentation is enormous: there are thousands of residential batteries in Italy that will help ensure the stability of the power system. This is a milestone for the country on its path towards an increasingly sustainable energy model," explains **Marco Gazzino**, Enel X's Head of Innovation and Product Lab "More specifically, the aggregator enables generation and storage plants distributed throughout the territory to participate in the network services market reserved until recently only to large production plants or industrial loads. Residential users will also be able to turn their batteries into active resources."

The trial, which will end at the end of 2020, already includes the participation of more than 100 photovoltaic systems with storage. All owners of residential plants and small businesses in the provinces concerned can join the initiative and leverage on its benefits by joining the Enel X Smart Community, on the dedicated web page https://www.enelxstore.com/it/it/enel-x-smart-community.

Once the possibility of including a system in the experimental project has been checked, Enel X will install a communication and remote control system for the storage unit. By doing so, and taking into account the usual self-consumption functions, the storage unit can be called upon to provide services for the power system, with a management that at the same time aims to minimize the impact on the battery's state of charge and availability.

The spread of energy production plants from non-programmable renewable sources – such as wind and sun – requires greater flexibility of the electricity system to ensure network stability. Active demand



management programs are created to meet this need, ensuring greater flexibility and efficiency of the energy infrastructure.

Demand response enables commercial and industrial consumers to become active players in the electricity system, increasing or reducing their energy consumption in response to peaks in electricity supply or demand. Demand response technology, of which Enel X is the leading operator, with a managed capacity of over 6 GW in the Americas, Europe, Asia, and Oceania, makes it possible to modulate the energy consumption of the participating industrial and commercial customers.

The extension of participation in active demand response programs also to connected small and mediumsized batteries will support the emergence of an increasingly distributed and sustainable model.

The project represents a further step in the aggregation of distributed flexibility and will also help verify how domestic customers participate in demand response.