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***Italian Energy Communities from a DSO’s Perspective***

*Anita Del Pizzo, Giuseppe Montesano, Carlo Papa*

*Enel Foundation, Italy*

*Marina Artipoli, Mariangela Di Napoli*

*Enel, Italy*

**Renewable energy communities are a great opportunity to empower citizens while increasing awareness about an efficient use of energy and of the energy systems**. A shift towards an energy model increasingly distributed and based on the generation of electricity from renewables is possible today not only thanks to the continuous reduction of the costs of power plants and to the improvements in their efficiency and reliability, but also -and even more- thanks to the tremendous innovation in the digitalization and control of these sources. The development of energy communities amplifies the need for such innovative and essential role of distribution system operators, and it is further pushing towards a change of paradigm in the sector wherein this context, DSOs play the key role of neutral facilitators through advanced and sophisticated technologies ensuring cost-effectiveness, high quality of service and resilience of the power system.

In this perspective, **the chapter highlights how the development of energy communities can benefit from the role played by technologically advanced DSOs. Focusing on the Italian case, it explores the nature of incentives for communities, and then discusses the criteria to define communities’ boundaries and size.**

The chapter consists of four main sections and starts with a brief description of the main properties of power distribution networks and DSOs operating in Italy, dealing with the role that DSOs can play in enabling the development of energy communities by enhancing resilience and high service quality. Then it focuses on how to remunerate communities and modulate incentives in a cost-effective way in the framework of a virtual model such as the one implemented in Italy during a pilot phase. The last section addresses the criteria to define in a more appropriate way the energy communities’ geographical perimeter in Italy, in order to maximize their potential.

**The main conclusion of the chapter is that the DSOs' role of facilitators supports energy communities in the simplest, most cost-effective, and reliable way.**

The role of DSOs as neutral market facilitators ensures economic value to the energy system as a whole helps the expansion of power generation capacity from renewables, and, avoids unnecessary and inefficient duplication of infrastructures.