



Puglia Active Network **NER300**

The project

Technology category: Smart grids

Location: Apulia region, Italy

Max. NER 300 funding: EUR 85.0 million

Final investment decision: February 2015

Entry into operation: June 2018

State of advancement

- Almost full LTE network coverage;
- Electric vehicle charging stations projects delivered and ready for deployment;
- main procurement activities completed;
- High/medium voltage and medium/low voltage substations deployment ongoing. On time.

Outlook for coming year

Installation operations at full speed for both primary and secondary substations; completion of LTE coverage; EV charging stations installation activities to start and ramp up; smart Info devices under delivery.

Outlook for coming 5 years

Full smart grid into operation.

Project sponsor

E-distribuzione S.p.A.

Project summary

The general goal of the project is to demonstrate at large scale on the distribution network how to obtain a significant enhancement of electric distribution network performances through innovative technologies that allow, once deployed, a novel active management of the network.

Monitoring with smart devices the distribution from generation units and implementing demand response functionalities can increase the capability of the grid to manage the large amount of distributed generation connected, allowing a correct coexistence of active and passive loads, avoiding critical situations and enable ancillary services maintaining an adequate quality of service. These objectives will be reached by the realizations of an innovative monitoring system of the power flows produced by distributed generation and the enabling of demand response to promote energy efficiency and thus reducing CO₂ emissions.

The present project concerns the medium voltage network located in Puglia, a southern region of Italy. The medium voltage network of Puglia mainly develops in a rural environment with low density of population and has a good availability of renewable energy sources. This, in turn, leads to a great number of distributed generation units, with a predominant photovoltaic generation.