



CERA-SG

Cost-Efficient Data Collection for Smart Grid and Revenue Assurance

“ *The CERA-SG project designs new technology for use in DSO network sizing and in billing, to analyze and influence consumer behaviour.* ”

Measuring power flows in the distribution network becomes more important due to distributed generation and storage. Data can drive prioritization of network investment for robustness as well as input for local grid control to reduce power peaks and the need for network investment.

Similar data can be used for excessive loss detection and derivation of measures to reduce losses.

The project addresses all 3 layers of the ERA-Net SG+ initiative as follows:

Technology: The project will use energy harvesting sensors (Current Transformers) for non-intrusive instrumentation of distribution networks, collect data via concentrators and send them to a headend system.

Marketplace: For cost efficiency reasons, the project will reuse as much as possible the existing instrumentation of the distribution network. For the complementary use of energy harvesting sensors, a business case will be calculated.

Stakeholders: After pinpointing of losses, consumer behaviour shall be influenced by making loss reduction visible in the neighbourhood. The project will develop proposals for tariffs / incentives which reward loss reduction in a customer commu-

Project Duration

01.04.2016 - 31.03.2019

Project Budget

Total Budget: € 1,018,611.-

Funding: € 630,159.-

Project Coordinator

MINcom Smart Solutions GmbH
(DE)

Project Partners

- AM Project and Design SRL (RO)
- University of Pitesti (RO)
- E.ON Distributie Romania (RO)

Project Website

< in construction >

Contact

MINcom Smart Solutions GmbH
toni.goeller@mincom-smart-solutions.com



From Local Trials towards a European Knowledge Community

<http://www.eranet-smartgridsplus.eu>

Main Objectives

- Cost reduction in Smart Grid deployment by using a common data collection infrastructure for the measurement of energy and power flows in the distribution network.
- Further cost reduction by using energy harvesting sensors in transformer stations and distribution networks to minimize the cost of installation in initial deployment and modifications.
- Better revenue collection by new ways of incentivitation to reduce non-technical losses.

Main Results

The project was started in April 2016. First results until October 2016 are:

- Values for precision and measuring range for current measurements via current clamps (results of lab experiments).
- Identification of potential manufacturers for current clamps and waterproof housing, to allow outdoor installations.
- Analysis of options for communication technology used between meter and concentrator as well as between concentrator and central system.
- Definition of functional features and technological design for a Revenue Assurance IT component.

M.I.N.c.o.m



This project is part of the 1st Joint Call for transnational RDD projects of the ERA-Net Smart Grids Plus initiative. More than EUR 31 million of funding have been made available to 21 projects from 19 regions/countries.

**ERA-Net
Smart Grids Plus**

