FLEXMETER

Project reference: 646568
Funded under: H2020-EU.3., H2020-EU.3.3., H2020-EU.3.3.4.

Flexible smart metering for multiple energy vectors with active prosumers

From 2015-01-01 to 2018-01-01, ongoing project

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
</tr>
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<tbody>
<tr>
<td>EUR 3 822 862,5</td>
<td>LCE-07-2014 - Distribution grid and retail market</td>
</tr>
<tr>
<td>EU contribution:</td>
<td>Call for proposal:</td>
</tr>
<tr>
<td>EUR 3 197 791,38</td>
<td>H2020-LCE-2014-3</td>
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<tr>
<td>Coordinated in:</td>
<td>Funding scheme:</td>
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<tr>
<td>Italy</td>
<td>IA - Innovation action</td>
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Objective

The introduction of the electricity market, the widespread diffusion of distributed generation from renewable and non-programmable energy sources and the need for storage are quickly changing the problems that Transmission and Distribution system operators have to face in their activity and are requiring a “smarter” grid. A first step in this direction is the development and installation of a flexible smart metering architecture for multiple energy vectors. Up to now the smart meters that in some countries are being installed at the users are nearly only devoted to billing improvements. The new metering systems must go much further to provide their contribution to various objectives such as end-user affordability of electricity, energy and market efficiency improvement, CO2 emissions and pollutants reduction. In the FLEXMETER project a flexible, multi-utility, multi-service metering architecture will be designed and deployed in two demonstrators. Simple off-the-shelf meters will be placed at the users for electric, thermal and gas metering; they will communicate with a building concentrator, where the “smartness” of the metering system will reside. A central cloud system will collect data from the building concentrators and from MV/LV substation meters. Data collection, fusion and mining algorithms will be adopted. The proposed architecture will allow for innovative services for the prosumers (e.g. analysis of the energy consumption), for the Distribution System Operators (DSOs) (e.g. fault detection, network balancing and storage integration) and for the retail market. Also demand side management devices could be plugged into the system. In the FLEXMETER project two pilot applications in two different countries (Italy and Sweden), on real systems, with the involvement of the local DSOs and volunteer prosumers will be demonstrated. The results on the demonstrators will then be scaled up to the size of the cities in order to evaluate the advantages on a real scale.

Coordinator

POLITECNICO DI TORINO

Italy

EU contribution: EUR 790 000

Participants
IREN ENERGIA SPA
Italy
EU contribution: EUR 404 250

STMICROELECTRONICS SRL
Italy
EU contribution: EUR 279 999

TELECOM ITALIA SPA
Italy
EU contribution: EUR 281 750

RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN
Germany
EU contribution: EUR 280 000

INSTITUT POLYTECHNIQUE DE GRENOBLE
France
EU contribution: EUR 225 792,5

JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION
Belgium
EU contribution: EUR 50 000

UNIVERSITATEA POLITEHNICA DIN BUCURESTI
Romania
EU contribution: EUR 190 625

SIVECO ROMANIA SA
Romania
EU contribution: EUR 192 500

ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA
Italy
EU contribution: EUR 202 875

E.ON SVERIGE AB
Sweden
EU contribution: EUR 299 999,88

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