



Grid4EU

*Large-Scale Demonstration of Advanced Smart Grid Solutions
with wide Replication and Scalability Potential for EUROPE*



CO - FUNDED BY
THE EUROPEAN UNION



SEVENTH FRAMEWORK
PROGRAMME

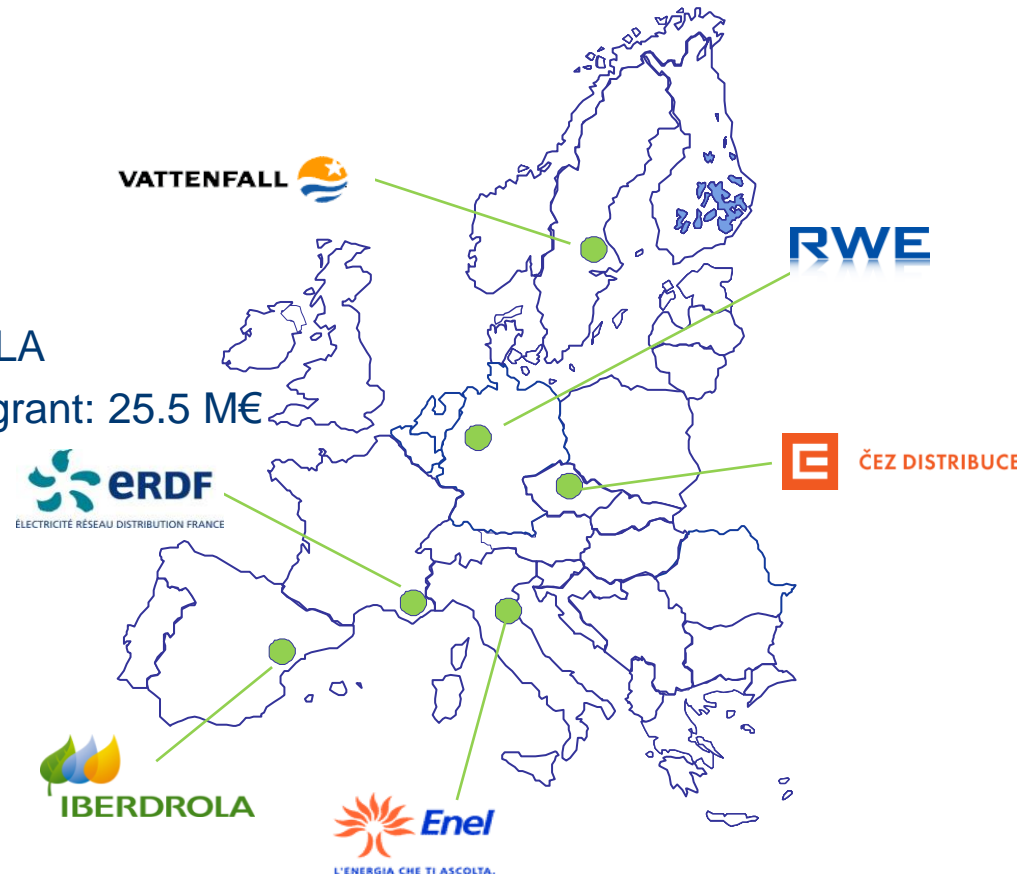


Overview of the Grid4EU Project



A European Smart Grids Project

- Lead by 6 electricity distribution system operators (covering more than 50% of the metered electricity customers in Europe)
- 27 partners (Utilities, Energy Suppliers, Manufacturers, Research Institutes)
- Duration: 4 years and 3 months (November 2011 – January 2016)
- Project Coordination: ERDF
- Technical Director: ENEL
- Chairman of General Assembly: IBERDROLA
- Total eligible costs: 54 M€, Requested EC grant: 25.5 M€



27 partners

from 8 European Union Member States, the US and Switzerland



Utilities



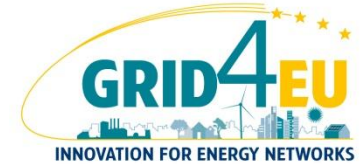
Manufacturers



Universities & Research Institutes



Milestones & Research Topics



Main Objectives

- Smart Grids cost-benefits analysis
- Technologies and standards
- Scalability and replicability over Europe

R&D Topics

- Using more renewable energy sources connected to distribution networks
- Implementing active, more efficient participation of customers to electricity markets (active demand)
- Secure energy supply - network reliability
- Medium and low voltage network supervision & automation
- Improving peak load management through increased interactions between network operation and electricity customers
- Electric vehicles, storage
- Micro-grids & islanding

Project structure

To achieve Grid4EU objectives the 6 demonstrators cannot progress separately, without a centralized coordination → **5 General Work Packages**

GWP1 - Project management

6 DEMONSTRATORS

GWP2-
Technical
specifications
&
requirements



GWP3 -
Scaling-up &
replication







GWP4 - Technology & communication standards

GWP5 - Dissemination

« Grid4EU » project

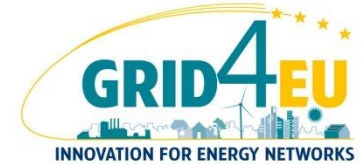
Local demonstrations – Interactions and synergies



	VATTENFALL 	IBERDROLA 	RWE 	Enel  <small>L'ENERGIA CHE TI ASCOLTA.</small>	CEZ GROUP 	ERDF  <small>ÉLECTRICITÉ RÉSEAU DISTRIBUTION FRANCE</small>
DER						
Active Demand						
Storage						
Electric Vehicle						
Innovation Power Management at MV level						
Innovation Power Management at LV level						
Micro-grid (Islanding)						
Climate	Cold & Stormy <i>Continental/Oceanic</i>	Mild <i>Mediterranean</i>	Moderate <i>Continental</i>	Dry <i>Mediterranean</i>	Cold <i>Continental</i>	Warm & stormy <i>Mediterranean</i>
Population Density	Urban	Urban	Semi-urban	Rural	Semi-urban	Semi-urban / urban

 Innovation Power Management at MV level	 Innovation Power Management at LV level
 DER	 Storage
 Active Demand	 Micro-grid (Islanding)
 Electric Vehicle	

Contribution to EEGI and ISGAN



- **Grid4EU is a key project** for the European Commission, which is expected to become a **“showcase” of the European state of the art on smart grids**
- **At European level**, Grid4EU will actively contribute to knowledge sharing among projects in the framework of EEGI (European Electricity Grid Initiative) knowledge sharing activities
- **At international level**, Grid4EU will also provide **an active contribution of Europe to ISGAN** (International Smart Grid Action Network), which aims at accelerating the development and deployment of smart electricity grids around the world



Please visit our web site:

www.grid4eu.eu