Objective

Plan4RES is a collaborative research and innovation project which aims at developing an end-to-end planning tool to successfully increase the share of renewable energy into the European Energy system without compromising on system reliability. The targeted platform will account for the Pan-European interconnected electricity system, potential synergies with other energy systems, emerging technologies and flexibility resources, providing a fully integrated modelling environment.

Moving away from a monolithic approach will enable to overcome mathematical and computational challenges. The objective is to strive towards a system where a multiplicity of models, properly organized in a functional hierarchy, synergistically
contribute to the analysis of such complex systems. Targeting all main stakeholders of the power system, from generation to retail through grid operators, this innovative modelling platform will deliver a full system planning capability while considering a large set of future uncertainties, thus acting as a decision making tool for future investments. Allocation of multi-energy resources, system flexibility, assets portfolio assessment, advanced ancillary services or impact assessment of regulation are among the key features that the tool will deliver.

Three case studies will provide the necessary validation of the platform, showing the adequacy and relevance of the developed modelling framework, especially key advances included in Plan4Res (multi-energy integration, investment planning under uncertainties, TSO/DSO flexibility Cost integration...) and data base. Those studies, performed on a European scale, will also demonstrate the efficiency of the modelling and solving of the tool. Moreover, the case studies will demonstrate the benefit of using tailored versions of Plan4Res for various stakeholders: multi technology provider, TSO, utility or energy provider.

Programme(s)

Topic(s)

Call for proposal

H2020-LCE-2017-SGS

Funding Scheme

Coordinator

ELECTRICITE DE FRANCE

Address

Avenue De Wagram 22
75008 Paris 08

Activity type

Private for-profit entities
(excluding Higher or Secondary Education Establishments)

EU contribution

€ 998 500

Website

Contact the organisation

Participants (7)
### IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE

**EU contribution**: € 485,385

**Address**: South Kensington Campus, Exhibition Road, SW7 2AZ London

**Activity type**: Higher or Secondary Education Establishments

### SIEMENS AKTIENGESELLSCHAFT

**EU contribution**: € 533,887.50

**Address**: Werner-von-siemens-str. 1, 80333 Munchen

**Activity type**: Private for-profit entities (excluding Higher or Secondary Education Establishments)

### CRAY COMPUTER GMBH

**EU contribution**: € 313,225.81

**Address**: Hochbergerstrasse 60C, 4057 Basel

**Activity type**: Private for-profit entities (excluding Higher or Secondary Education Establishments)

### Konrad-Zuse-Zentrum für Informationstechnik Berlin

**EU contribution**: € 484,687.50

**Address**: Takustraße 7, 14195 Berlin

**Activity type**: Research Organisations
RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN

EU contribution
€ 598 500

Address
Templergraben 55
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Activity type
Higher or Secondary Education Establishments

Website
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CONSORZIO INTERUNIVERSITARIO PER L’OTTIMIZZAZIONE E LA RICERCA OPERATIVA

EU contribution
€ 371 200

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Activity type
Research Organisations

Website
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HEWLETT-PACKARD (SCHWEIZ) GMBH

EU contribution
€ 119 674,19

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Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

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