



**Research and Innovation activities
about energy storage integration in the electricity networks:
ongoing activities at national level and future needs**

Regional workshop (Bulgaria, Cyprus, Greece, Romania)

HELLENIC ELECTRICITY DISTRIBUTION NETWORK OPERATOR S.A.

20, Perraivou & 5, Kallirrois str.

117 43 Athens, Greece

9 February 2016

Background

This one-day workshop relates to the SET Plan activities within the Energy Union Framework.

The [Grid+Storage](#) service contract aims at providing the European Commission and the Member States with an upgraded version of the [Research and Innovation Roadmap for the electricity grids](#) as approved in 2013.

The novel features of this upgraded roadmap are three folds:

1. The roadmap will take into account an explicit description of Research and Innovation (R&I) activities recommended **about energy storage integration in the future electricity networks** (operations, maintenance, planning and market mechanisms) since energy storage is a way to increase the flexibility of the electricity system;
2. The roadmap upgrading process involves **the active participation of Member States**, by giving them the opportunity to show where and how public national funding addresses energy storage integration into grid activities: this contribution will reinforce the monitoring of national or regional Research and Innovation activities, thus helping to minimise the future risks of funding overlaps in EU28. And it will underline the role of the [ERA-Net Smart Grid Plus initiative](#) in catalysing more cooperative R&I activities between Member States.
3. The debates which are organised during nine “regional” workshops will favour the **involvement of national players in identifying needs for further research and innovation activities** at national and European level in order to accelerate the deployment of energy storage solutions throughout the electricity system.

This fourth workshop covers R&I activities in Greece, Cyprus, Bulgaria and Romania: it is therefore a **unique opportunity to interact with network operators and energy storage stakeholders about the R&I results obtained so far, and the scope and contents of the future Research and Innovation roadmap.**

All stakeholders involved in R&I activities dealing with smart grids and energy storage integration in the power system are invited to attend this workshop. National R&I projects representatives are welcome to join a labelling process where the European added value of their activities will be identified jointly by the [ERA-Net Smart Grid Plus](#) and [Grid+Storage](#) teams.



Six other regional workshops are scheduled throughout Europe until March 2016, in order to share knowledge and agree about the future Research and Innovation activities needed for the next ten years.

DRAFT



Program

9 February 2016

8:30 REGISTRATION

09:00 Introduction to Grid + Storage: overall objectives and purpose of the workshops
Eric Peirano, Grid+Storage Project Manager, TECHNOFI

09:15 Hybrid stations: legal framework and regulatory aspects (Greece)
Stavros Papathanasiou, Associate Professor, NTUA

09:45 Lessons learned from the Ikaria hybrid station (Greece)
Ilias Spanos, Project Manager, ENET, tbc

10:15 The Kythnos hybrid station (Greece)
John Chadjivassiliadis, Chairman of IENE (Institute of Energy for South-East Europe)

10:45 Grid and Market Integration activities in Cyprus and the need for storage
*Ioannis Koumparou, Research Associate
PV Technology, FOSS Research Centre for Sustainable Energy, University of Cyprus*

11h15 COFFEE BREAK

11:45 First round table (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI)

Interactions with the audience about

- lessons learnt by the projects presented during this session
- new knowledge needs to better integrate energy storage into the electricity system

12:15 LUNCH BREAK

13:45 The Smart Grid Knowledge Sharing Platform
Sophie Dourlens-Quaranta, Grid+Storage Stakeholder Consultation Coordinator, TECHNOFI

14:00 From local trials towards a European Knowledge Community: ERA-Net Smart Grids Plus
Iva Gianinoni, ERA-Net Smart Grids Plus Support Team, Italian Expert of ISGAN Annex 1&2, RSE

14:15 FCH-JU Energy Storage Commercialization Study (Greece)
Christina Papadimitriou, Senior Researcher, NTUA

14:45 Meltemi: microgrid concept in a holiday district (Greece)
Aris Dimeas, Senior Researcher, NTUA

15:00 Smart Islands networks with very high penetration of renewables (Greece)
Aris Dimeas, Senior Researcher, NTUA

15:30 Developing tools to increase RES penetration in smart grids (Greece)
Grigoris Papagiannis, Professor, AUTH



16:00 COFFEE BREAK

16:30 Second round table (*moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI*)

Interactions with the audience about

- lessons learnt by the projects presented during this session
- new knowledge needs to better integrate energy storage into the electricity system

17:00 Final round table (*moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI, with participation of projects representatives and members of EASE, EDSO and ENTSO-E*)

- Impacts of the new knowledge presented by the six projects onto the Grid and Storage roadmap
- Recommendations for future R&I activities and regional investments about grid and energy storage solutions

17:30: END OF WORKSHOP

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About Grid+Storage

[Grid+Storage](#) is a service contract for the European Commission (DG ENER), aiming at defining the European Research and Innovation roadmap integrating energy storage into grid activities.

[Grid+Storage](#) partners are:



About ERA-Net Smart Grids Plus

[ERA-Net Smart Grids Plus](#) is an initiative of 21 European countries and regions, aiming at enabling the right technologies, market designs and customer adoption in order to achieve the Smart Grids vision in Europe. It has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 646039.

[ERA-Net Smart Grids Plus](#) funding partners are:



About ETP SmartGrids

The [European Technology Platform for Electricity Networks of the Future](#), also called ETP SmartGrids, is European forum to shape technology research and innovation pathways which will make electricity networks smarter.