



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

Regional workshop (Ireland and UK)

Royal Academy of Engineering
3 Carlton House Terrace, London, SW1Y 5DG
United Kingdom

15 March 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 ninth and last workshop covers R&I activities in Ireland and UK: 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.



Programme - 15 March 2016

09:00 REGISTRATION and WELCOME COFFEE

SESSION 1 - Projects and technologies

9:30 Welcome speech.

Professor Goran Strbac, Imperial College London

9:40 Introduction to the activities of the Grid + Storage project.

Eric Peirano, Grid+Storage Project Manager, TECHNOFI

9:50 Domestic & Grid Storage in WPD.

Faithful Chanda & Mark Dale, Western Power Distribution

10:10 Lessons from RES energy storage projects in operations and construction.

Dr. John Prendergast, RES

10:30 Smarter Network Storage: Results from the first UK grid-scale multi-purpose application of battery storage.

Dr. Panagiotis Papadopoulos, UK Power Networks

10:50 Platform expansion from the UK's largest battery storage array.

Dominique Laurent, AES

11:10 EirGrid investigates storage technologies.

Alan Kennedy, EirGrid

11:30 First round table (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI)

All session speakers and Nick Heyward, Origami Energy)

Interactions with the audience about lessons learnt by projects presented during this session and the new knowledge needs to better integrate energy storage into the electricity system.

12:00 LUNCH BREAK

SESSION 2 - Projects and technologies (cont.)

12:50 The Smart Grid Knowledge Sharing Platform.

Daniel Hernandez Maldonado, Consultant, TECHNOFI

13:00 Integration and Control of Energy Storage in Distribution Networks: Simulation, experimentation and deployment.

Prof. Phil Taylor, Newcastle University

13:20 MASLOW: UK case studies on large scale pilots of Residential Energy Storage and aggregate VPP grid services.

Simon Daniel, Moixa energy holdings

13:40 Could Electric Heaters be Europe's cheapest Storage Option

Gerard Finneran, GlenDimplex

14:00 Grid Scale Liquid Air Energy Storage.

Dr. Gareth Brett, Highview Power

14:20 Second round table (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI)

Interactions with the audience about lessons learnt by projects presented during this session and the new knowledge needs to better integrate energy storage into the electricity system.

14:40 COFFEE BREAK



SESSION 3 - System integration and future development

15:00 Storage - a System Operator Perspective.

Dr. Cathy McClay, National Grid

15:20 The Business Case for Energy Storage.

David Sanders, Carbon Trust

15:40 Virtual Storage – multi-energy systems.

Prof Mark O'Malley, UCD

16:00 Third round table (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI)

Interactions with the audience about lessons learnt by projects presented during this session and the new knowledge needs to better integrate energy storage into the electricity system.

16:30 Final round table (moderated by Eric Peirano, Project Manager of Grid+Storage, TECHNOFI, and Professor Goran Strbac, Imperial College London, with the participation of projects' representatives and members of EASE, EDSO and ENTSO-E)

- Impacts of the new knowledge presented by the 10 projects onto the Grid and Storage roadmap.
- Recommendations for future R&I activities and regional investments about grid and energy storage solutions.

17:00 END OF WORKSHOP/AOB



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