



POLICY WORKSHOP

WHICH ENERGY STORAGE FOR THE FLEXIBILITY NEEDS OF A MULTI-ENERGY SYSTEM?

Chairs:

Ilaria Conti | Florence School of Regulation / RSCAS / EUI

Lubor Veleba | Gas Infrastructure Europe

Scientific Organiser:

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Sala Europa

Villa Schifanoia, Via Boccaccio 121 - Florence

 @FSR_Energy #FSRPolicyWorkshop

27 MAY 2019

■ INTRODUCTION

Storing energy is becoming key to create a more flexible and reliable energy system. Cost-effective and efficient storage is the next obstacle that needs to be overcome in the move to a higher and rapid deployment of renewable energy sources within the EU energy mix.

More complementary storage technologies are needed to support EU's transition to a low-carbon economy and to meet different flexibility needs of a multi energy system. Where RES penetration will displace an increasing share of dispatchable energy sources from the system, the need for seasonal storage becomes obvious to overcome risk of curtailment in the event of surplus and risk of disruption in the event of deficit. Already existing gas storage infrastructure close to demand centers can offer short, mid and long-term / seasonal flexibility and storage solutions at terawatt-hour scale. In addition, storage also enables a closer integration of the gas and electricity sectors through "sector coupling".

What is the appropriate regulatory and market design to support the integration of higher shares of renewable energy with minimum curtailment and at optimised system cost? How to assess externalities related to the system and insurance values in a cross-sectoral flexibility market to unlock the full potential of large-scale storage?

To address these and other related issues, the Workshop will be structured in three sessions:



Co-funded by the
Erasmus+ Programme
of the European Union



- Session 1 will review innovative services developed by gas storage operators to facilitate the future role of gas system to meet climate change targets. These innovative solutions include, amongst others, power-to-gas, hydrogen storage and decentralised storage.
- Session 2 will expand the discussion to tackle a broader issue of what is needed to cope with both decarbonisation and competition goals.
- Session 3 will be devoted to the regulatory framework for a sustainable storage market. An adequate market design that could enable sector coupling and deliver benefits, thus making the best use of a greater penetration of renewables to meet the EU decarbonisation objectives.

The event will conclude by issuing policy recommendations.

■ DRAFT PROGRAMME

- 08.30 - 08.45 *Welcome Coffee*
- 08.45 - 09.00 Welcome address
Jean-Michel Glachant | Florence School of Regulation / RSCAS / EUI
- 09.00 - 09.30 Setting the scene
Ilaria Conti | Florence School of Regulation / RSCAS / EUI
Lubor Veleba | Gas Infrastructure Europe

SESSION I HOW TO MAKE THE DEPLOYMENT OF RENEWABLE ENERGY SOURCES EFFECTIVELY INTEGRATED INTO THE SYSTEM?

- 09.30 - 11.00 Chair:
Ilaria Conti | Florence School of Regulation / RSCAS / EUI
- Presentations from SSOs on innovative projects on P2G, H2 storage and decentralised storage:
Cécile Prévieu | Storengy
Axel Wietfeld | Uniper Energy Storage
Frits van der Velde | EnergyStock
- Panel discussion:
Cécile Prévieu | Storengy
Axel Wietfeld | Uniper Energy Storage
Frits van der Velde | EnergyStock
Nicolas Kraus | Hydrogen Europe
Jean-Marie Gauthey | GD4S
- Q&A

- 11.00 - 11.30 *Coffee break*

SESSION II DECARBONISATION HAND IN HAND WITH COMPETITION: HOW TO MAKE IT HAPPEN?

- 11.30 - 13.00 Chair: **Andris Piebalgs** | Florence School of Regulation / RSCAS / EUI
- Presentation:
Michael Schmöltzer | GIE
- Panel discussion:
Michael Schmöltzer | GIE
Giuseppina Squicciarini | Eurogas
Florie Gonsolin | CEFIC
Cyril Harry | Eurelectric
Peter Biltoft | EFET (TBC)
Claude Mangin | ENTSOE
- Q&A
- 13.00 - 14.00 *Lunch*

SESSION III REVISITING THE GAS REGULATORY FRAMEWORK TO CAPTURE THE FULL POTENTIAL OF STORAGE

14.00 - 15.45 Chair: **Gergely Molnar** | International Energy Agency

Presentation:

Emmanuel Grand | FTI-CL Energy

Christopher Andrey | Artelys

Panel discussion:

Emmanuel Grand | FTI-CL Energy

Christopher Andrey | Artelys

Stefan Moser | European Commission

TBC | GIE

Daniel Marenne | Engie (TBC)

Q&A

15.45 - 16.00

Conclusions:

Ilaria Conti | Florence School of Regulation / RSCAS / EUI

Lubor Veleba | Gas Infrastructure Europe