

# ENERGY STORAGE

Global Conference



## PROGRAMME

24 - 26 October 2018  
Hotel Le Plaza, Brussels



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# 3rd Energy Storage Global Conference

24–26.10.2018

Brussels

## Day 1: Technology – organised with the support of the JRC

10:00	<b>1.1 Welcome and Introduction</b> – EASE and JRC activities
10:30	<b>1.2 Setting The Stage: European Market Monitor on Energy Storage</b> <ul style="list-style-type: none"> <li>Which countries are currently most dynamic concerning storage development from a quantitative point of view (GWh and GW added) and in terms of deployment of innovative technologies?</li> <li>What are the drivers for energy storage development in the different EU countries?</li> </ul>
10:50	<b>1.3 Current and Future Storage Applications</b> <ul style="list-style-type: none"> <li>Energy storage systems are often deployed for very specific functions such as time shift or frequency control. Which applications will future energy and power systems need?</li> </ul>
11:10	<b>1.4 Energy Storage Technology Costs</b> <ul style="list-style-type: none"> <li>Are traditional ways to estimate LCOE for energy storage adequate?</li> <li>What recent concepts are proposing for?</li> </ul>
11:30	<b>1.5 Manufacturing in Europe: A strategic necessity or value chain optimisation?</b> <ul style="list-style-type: none"> <li>What is the added value of manufacturing energy storage technologies in Europe?</li> </ul>
11:50	<b>1.6 Battery projections and assumptions in energy modelling scenarios</b> <ul style="list-style-type: none"> <li>What are the projections on battery demand in global energy scenarios?</li> <li>What are the assumptions on battery costs?</li> </ul>
12:10	<b>1.7 EASE Student Award Ceremony</b>
12:30	<b>LUNCH</b>



	<p><b>Track A</b></p> <p><b>Introduction to Energy Storage: Technologies and R&amp;I</b></p> <ul style="list-style-type: none"> <li>• What are the different energy storage technologies currently available on the market?</li> <li>• What are their main technical capabilities and applications?</li> <li>• How are R&amp;I projects addressing the different energy storage technologies?</li> <li>• What are the technical and regulatory challenges and issues faced by these projects?</li> <li>• What are the outcomes of these projects? Can their results be monetised?</li> </ul>	<p><b>Track B</b></p> <p><b>Cutting-Edge Developments in Storage Technologies</b></p> <ul style="list-style-type: none"> <li>• What are the latest developments in energy storage technologies?</li> <li>• Which break-through technologies have the potential to replace existing state-of-the-art?</li> <li>• What emerging energy storage concepts are ready to break into the market?</li> <li>• What advances are being made in hybrid energy storage systems (combining two or more storage technologies)?</li> </ul>
13:30	1.8 a) Introduction to Large-Scale Energy Storage Technologies: CAES, LAES, Pumped Hydro, Power-to-X	1.8 b) Advances in Large-Scale Energy Storage Technologies: CAES, LAES, Pumped Hydro
14:10	1.9 a) Introduction to Small-Scale Energy Storage Technologies: Batteries, Flow Batteries, Flywheels	1.9 b) Next-Generation Battery Technologies: Flow Batteries, High-Temperature Batteries, Li-ion batteries.
14:50	<b>COFFEE BREAK</b>	
15:20	1.10 a) Presentation of R&I European Projects	1.10 b) Behind-the-Meter Storage: Batteries and Thermal Storage
15:40	1.11 a) Presentation of R&I European Projects	1.11 b) System and Ancillary Services: Batteries, Supercapacitors, Flywheels
16:00	1.12 a) Presentation of R&I European Projects	1.12 b) Sector Integration: H <sub>2</sub> and Power-to-X



16:20	1.13 a) Presentation of R&I European Projects	1.13 b) Hybrid Energy Storage Systems
16:40	1.14 a) From HORIZON 2020 to Horizon Europe	1.14 b) Battery recycling: challenges and opportunities
17:00	<b>Lessons Learned/Observations from Day 1</b>	
20:00	<b><i>OPENING DINNER</i></b>	



## Day 2: Energy Storage Policy and Regulation

09:00	2.1 Welcome and Opening Statement
09:15	2.2 Keynote Speech on Storage Policy
09:45	<p>2.3 Energy Storage Policy: The International Perspective</p> <p><i>Presentations followed by Q&amp;A</i></p> <ul style="list-style-type: none"><li>• How are energy storage markets developing in China, Australia, the United States and India?</li><li>• How have the regulatory frameworks and policies shaped storage development?</li></ul>
10:45	COFFEE BREAK
11:15	<p>2.4 Energy Storage Policy: The EU Member States Perspective</p> <p><i>Presentations followed by Q&amp;A</i></p> <ul style="list-style-type: none"><li>• How are EU member states promoting energy storage at national and local level?</li><li>• How do member states see the link between energy storage legislative framework and energy storage business growth?</li></ul>
12:00	<p>2.5 European Energy Market Design for Storage</p> <p><i>Panel Discussion</i></p> <ul style="list-style-type: none"><li>• Are the market design proposals in the “Clean Energy for All Europeans” Package a game changer for storage? What further steps must be taken to support energy storage deployment?</li><li>• How could the issue of grid tariffs and fees be addressed?</li><li>• Which success stories/lessons individual countries could be applied at EU level?</li></ul>
12:45	LUNCH
13:45	2.6 Keynote Speech



## 2.7 Energy Storage in Transmission and Distribution Grids

### *Presentations*

- What would be the value of TSOs and DSOs operating energy storage technologies for infrastructure services?
- How can we maximise the value of energy storage technologies owned and operated by regulated entities? Could regulated and market services co-exist?
- How could the EU regulatory framework adapt to such applications?

14:00

### *Panel discussion:*

- How can regulators support market-based procurement of energy and ancillary services that allows energy storage to compete on a level playing field?
- What about long-term contracts for balancing and ancillary services?
- What about ownership of energy storage which are “fully integrated network components” by regulated entities?

15:15

*COFFEE BREAK*

## 2.8 Energy Storage and Mobility

### *Presentations*

- What is the impact of EVs on local distribution grid and on long-term planning?
- Could BEVs and FCEVs provide the grid with system services? If so, how could these services be monetised?
- What is the role of policymakers to facilitate this shift to BEVs and FCEVs and support prosumers?

15:45

### *Panel discussion: BEVs or FCEVs, which technology for which application?*

- Road, maritime, aviation transport: which one of BEVs or FCEVs will take the lead on these different segments?
- What about BEVs and FCEVs environmental impact and capacity to integrate RES?

17:00

**Lessons learned/Observations from Day 2**

19:30

*GALA DINNER*



## Day 3: Market Drivers

09:00	<b>3.1 Welcome and Opening Statement</b>
09:05	<b>3.2 Keynote Speech</b>
09:30	<b>3.3 The Economics of Energy Storage Projects</b> <ul style="list-style-type: none"><li>• What are the multiple revenue streams available to energy storage projects?</li><li>• What are the different costs impacting the business success of energy storage projects?</li><li>• Financing Energy Storage: What is the rationale behind private investors' decision to invest in energy storage? How do they mitigate the investment risk?</li></ul>
10:15	<i>COFFEE BREAK</i>
10:45	<b>3.4 Presentation of Replicable Energy Storage Business Cases</b> <ul style="list-style-type: none"><li>• How do energy storage developers maximise the revenue of energy storage projects? What about revenue stacking?</li><li>• What are the regulatory barriers faced by energy storage developers?</li><li>• Early move, portfolio diversification and partnership: key success factors for energy storage developers?</li></ul>
12:45	<b>Closing Keynote</b>
13:00	<b>Closing Remarks</b>
13:15	<i>LUNCH</i>