

# Energy Storage: Key Technology for the EU Green Deal and COVID-19 Recovery

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Webinar Technology Watch EF

**David Post** 

EASE President, Enel X

Brittney Elzarei

**EASE Policy Manager** 



### Introduction to EASE

The European Association for Storage of Energy (EASE) is the leading member-supported association representing organisations active across the entire energy storage value chain.

EASE supports the deployment of energy storage to accelerate the cost-effective transition to a resilient, carbon-neutral, and secure energy system.

EASE represents more than 50 members including utilities, technology suppliers, research institutes, distribution system operators, and transmission system operators.



#### Awareness raising

Raise awareness about the benefits of energy storage, as well as its crucial role in supporting the energy transition.



#### Information-sharing

Serve as a platform for information-sharing and debate on different technologies, applications, and business cases.



#### Market design

Promote a fair and future oriented energy market design that recognises storage as a central element of the energy system.



## Introduction to EASE



































































































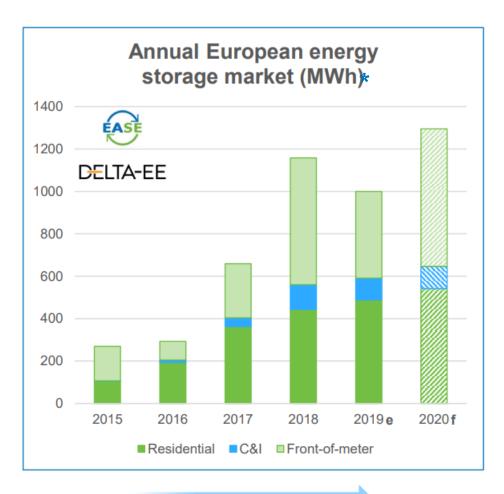






# Energy Storage in the EU - Technology Deployments

- As of May 2020, the EU+UK had an estimated installed base of 4.8 GWh across all storage segments (stationary storage excl. PHS)
- Pumped Hydro Storage still accounts for over 90% of installed EU energy storage power capacity
- Electrochemical storage (e.g. li-ion batteries) is quickly gaining in market share
  - ✓ Leading markets UK, Ireland, Germany



<sup>\*</sup> Stationary electrical, electrochemical and mechanical storage (with the exception of pumped hydro storage).

Source: EASE, Delta-ee: European Market Monitor on Energy Storage 4.0 (March 2020)

0.6 GWh

**Cumulative market size** 

4.8 **GW**h



# Energy Storage in the EU - Policy and Regulation

- The Clean Energy for All Europeans Package (2019) defines the minimum requirements to facilitate the deployment of energy storage:
  - technology neutral definition of storage,
  - access to markets and system services,
  - consideration of storage in network planning,
  - enables C&I and residential customers to own and operate behind-the-meter solutions,
  - •
- Energy storage is now recognised by policymakers as an essential technology for the energy transition
- Significant EU funding available for investment in clean energy technologies incl. storage – Next Generation EU, Horizon Europe, Just Transition Fund, ...

- Key issues to be addressed:
  - ✓ Clean Energy Package implementation into national law of EU Member States
  - EU energy storage strategy is needed to achieve 2030 and 2050 decarbonisation targets
    - Alignment across EU Green Deal files touching on storage
    - Modelling and data collection to help define targets and track progress across EU-27
  - ✓ Adequate price signals for storage, particularly in terms of long-term investor certainty

# Energy Storage in the Green Deal and Recovery Fund

## **EASE's 10 Priorities for the Storage Sector**

- 1. Focus on **technology neutral policymaking** considering all energy storage technologies
  - → 'Mainstream' energy storage across all EU Green Deal Files
- 2. Accelerate Clean Energy Package implementation in all EU Member States
- 3. Ensure market based tendering and fair remuneration for energy storage services, enabling revenue stacking and long-term revenue streams
- 4. Recognise specific attributes of energy storage, e.g. when defining grid fees and charges, network codes



# Energy Storage in the Green Deal and Recovery Fund

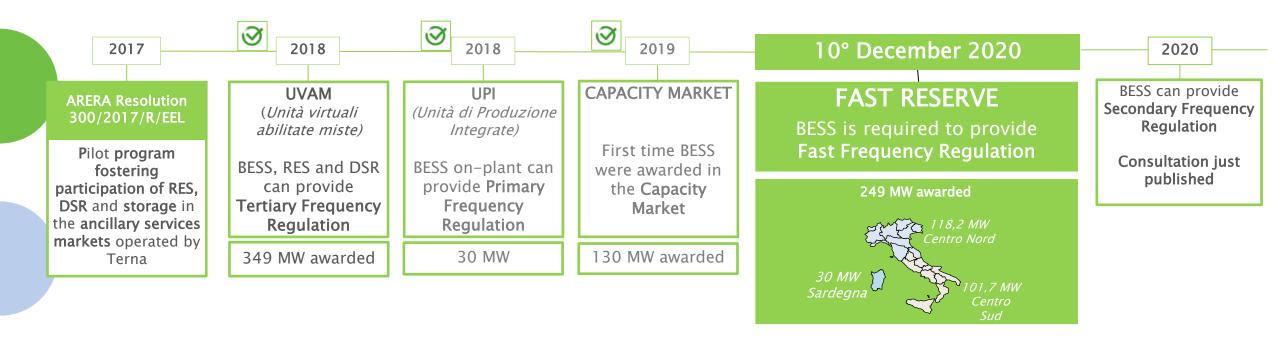
## EASE's 10 Priorities for the Storage Sector

- 5. Unlock funding for energy storage R&D, demonstration and deployment, and training, including through the COVID-19 Recovery Plan and Just Transition Fund
- 6. Support the link between energy storage and mobility
- 7. Enable the development of long-duration storage
- 8. Consider all energy storage technologies in the context of sustainable finance
- 9. Facilitate **permitting** for energy storage projects
- 10. Develop common standards and approaches for safety and sustainability of storage systems to support harmonisation and interoperability





# Energy Storage in Italy: Challenges and Outlook



#### Fast Reserve results

- 5 year contract thru capacity payment
- 53 qualified bidders for a total of 1.327MW awarded capacity of 250MW



#### **EASE** – European Association for Storage of Energy

Avenue Adolphe Lacomblé 59/8 BE - 1030 Brussels

Tel: +32 2 743 29 82 | Fax: +32 2 743 29 90

@EASE\_ES

<u>info@ease-storage.eu</u> <u>www.ease-storage.eu</u>





































