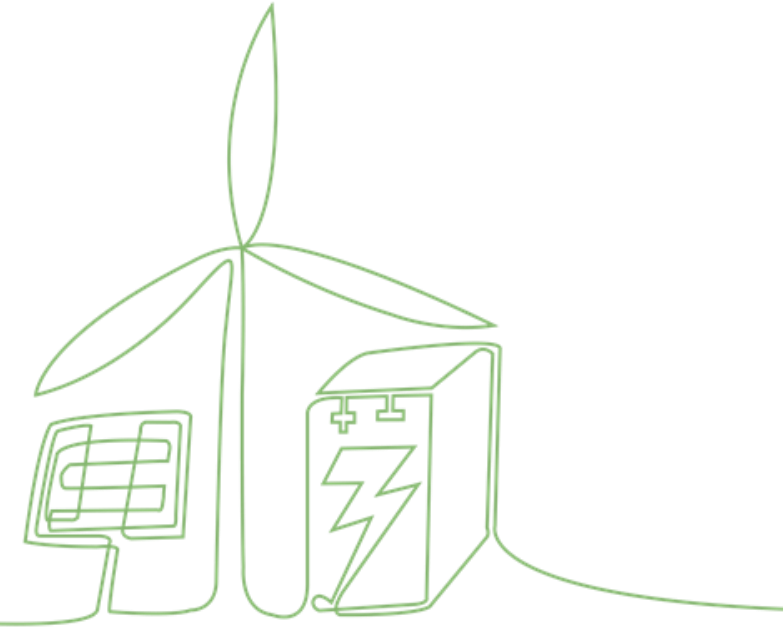




DELTA-EE



# EUROPEAN MARKET MONITOR ON ENERGY STORAGE

## LATEST STATUS AND TRENDS IN EUROPE

March 2021  
Edition 5.0

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# Today's Webinar Agenda

- > **Introduction**
- > **EMMES 5.0 market data and forecasts**
- > **CEP Implementation**
- > **EU energy storage policy developments**
- > **Q&A**

# Introducing today's webinar speakers



**Brittney Elzarey**

**Policy Manager**

**EASE**



**Jon Ferris**

**Head of Flexibility &  
Energy Storage**

**Delta-EE**



**Robin Adey-Johnson**

**Service Manager**

**Delta-EE**



**João Coelho**

**Research Analyst**

**Delta-EE**

# About EASE

The European Association for Storage of Energy (EASE), established in 2011, is the **leading member-supported association** representing organisations active across the entire energy storage value chain.

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

EASE **represents over 45 members** including utilities, technology suppliers, research institutes, distribution system operators, and transmission system operators.



**Awareness raising**








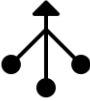






**Information-sharing**



**Market design**

Research and consulting services helping organisations to develop the best strategies, business models and customer propositions for the energy transition

<p><b>Connected Home Service</b> The opportunities in the growing connected home market and how to capture them</p> 	<p><b>New Energy Business Model Service</b> Understand, identify and implement the most promising commercial opportunities from the increasing disruption in the energy sector</p> 	<p><b>Distributed Power Service</b> How to succeed in the global distributed power market</p> 	<p><b>Electrification of Heat Service</b> Identify and capture the increasing range of opportunities from growing electrification of heat</p> 
<p><b>Energy Insights +</b> How can we best use energy insights to enhance residential customer engagement and create value for us and our customers?</p> 	<p><b>Energy Storage Research Service</b> Capturing the best opportunities for distributed energy storage</p> 	<p><b>EV Charging Service</b> How to best develop position and activities to succeed in the rapidly growing eMobility market</p> 	<p><b>Flexibility Research Service</b> Capturing opportunities in the growing demand side flexibility market</p> 
<p><b>Gas Heating Service</b> What is the future of gas in buildings and how can you best capture the opportunities and respond to the threats?</p> 	<p><b>Global Hydrogen Intelligence Service</b> How the global hydrogen sector is developing</p> 	<p><b>Heating Business Service</b> How to evolve from selling individual products and commodities to become a successful home energy solution provider</p> 	<p><b>Local Energy Systems Research Service</b> Understand and respond to the challenges and opportunities from the growth in energy communities, microgrids and local energy markets</p> 

# EMMES 5.0 report

## March 2021

### Comprehensive geographical coverage of Europe (broken down into 8 regions)

- France
- Germany
- Italy
- UK
- Central / Eastern Europe
- Iberia
- Nordics
- Rest of Europe

### Looking at three major market segments

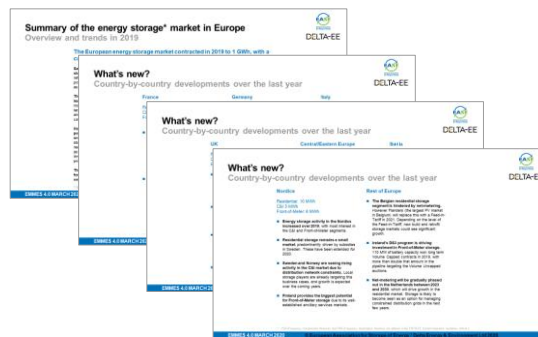


**Residential**

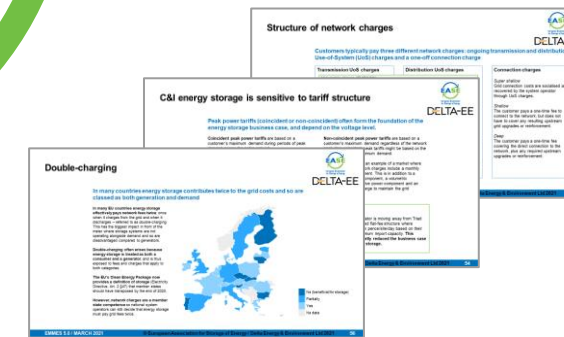
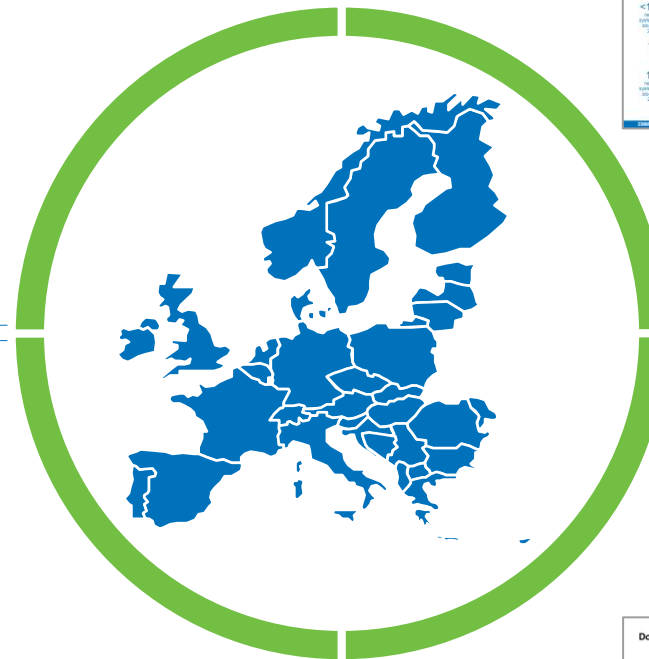
**Commercial/Industrial**

**Front-of-Meter**

### Extended summary of the overall status and trends across Europe



### Market Hot Topic: *electricity system network charging*

# Today's Webinar Agenda

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# What impact do you think COVID-19 has had in the storage market?

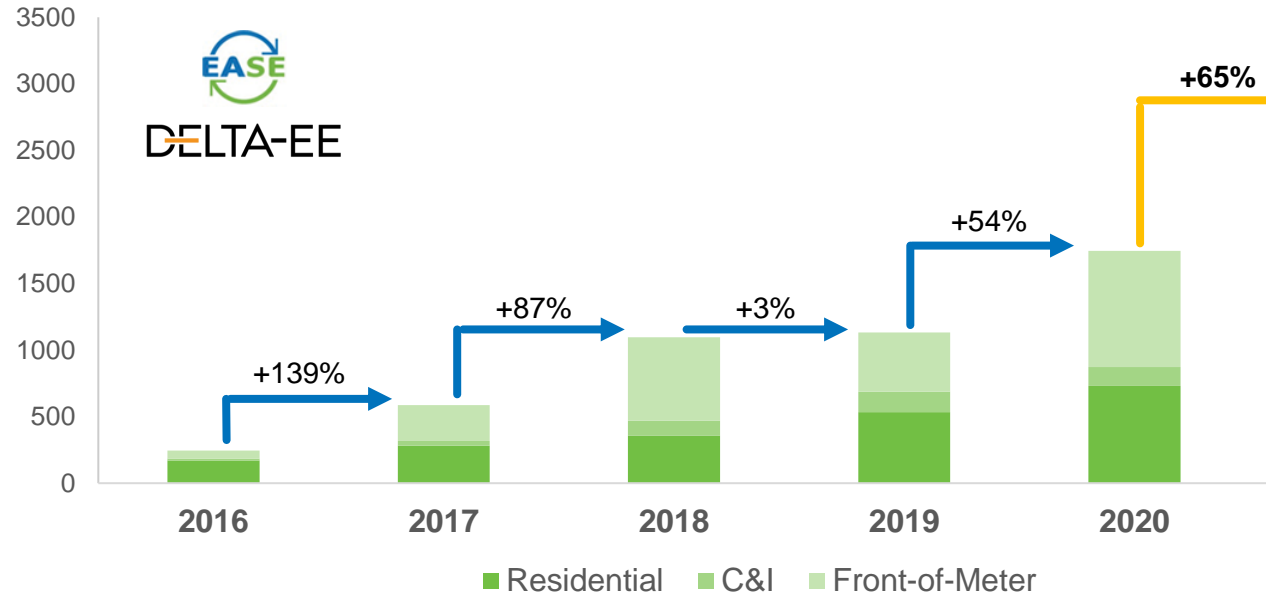
- No impact
- Supply chain disrupted
- Reduced workforce due to illness, layoffs, furlough, etc
- Workforce unable to access sites
- Customer demand reduced



# EMMES 5.0 market data and forecasts

## Electrochemical energy storage

### Annual European energy storage market (MWh)



0.55 GWh

Cumulative market size

5.26 GWh

# 4 Trends in 2020



**Front-of-Meter projects dominate as battery storage duration increases**



**New value streams open up to battery storage**



**Member states continue reforms and CEP implementation**



**Behind-the-Meter installations impacted by COVID-19 lockdowns**

# Trend Overview

## Numbers and duration of Front-of-Meter battery projects are increasing

- Need to accommodate incoming renewable generation
- Standalone battery storage as a way to mitigate grid congestion
- Co-location already required in some countries in new solar auctions

## CEP implementation initiates reforms, although with some disparities

- EU Green Deal remains the European Commission's top priority despite COVID-19
- Net-metering and double-charging policies are coming to an end but at a country-specific pace
- COVID-19 Recovery Plans are expected to deliver investment in storage



## New value streams open up to battery storage

- Implementation of FFR markets enabling battery storage participation
- Some FCR and aFRR markets are reducing their minimum requirements and allowing aggregation
- Value stacking enabling participation in multiple services

## Behind-the-Meter installations impacted by COVID-19 due to lockdowns

- Overall there is a noticeable decrease in annual installations across markets and sectors
- **Residential:** France, Italy and UK affected but growth in Iberia in response to recent reforms
- **C&I:** The largest affected sector, with CEE an exception due to installations for heavy industry

# Besides DE and the UK, which country/region do *you* think will grow the fastest for Energy Storage in the next 3 years?

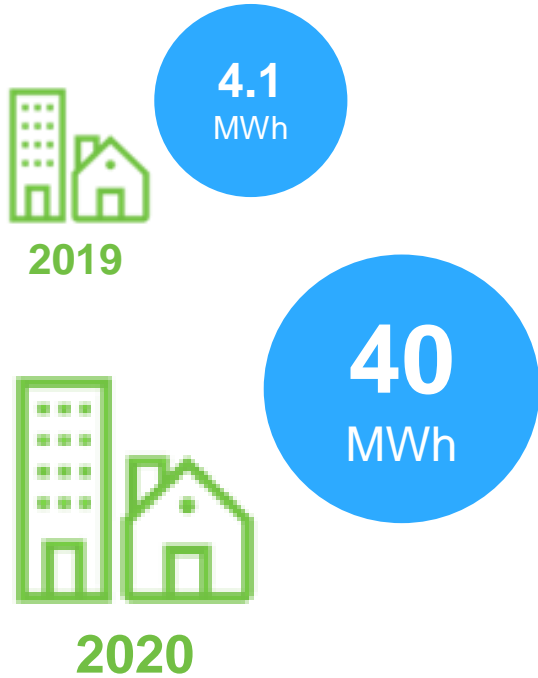
- France
- Belgium / Ireland / Netherlands
- Central/Eastern Europe
- Nordics
- Southern Europe (Italy, Spain, Portugal)

# Market focus

## Annual installations (MWh)

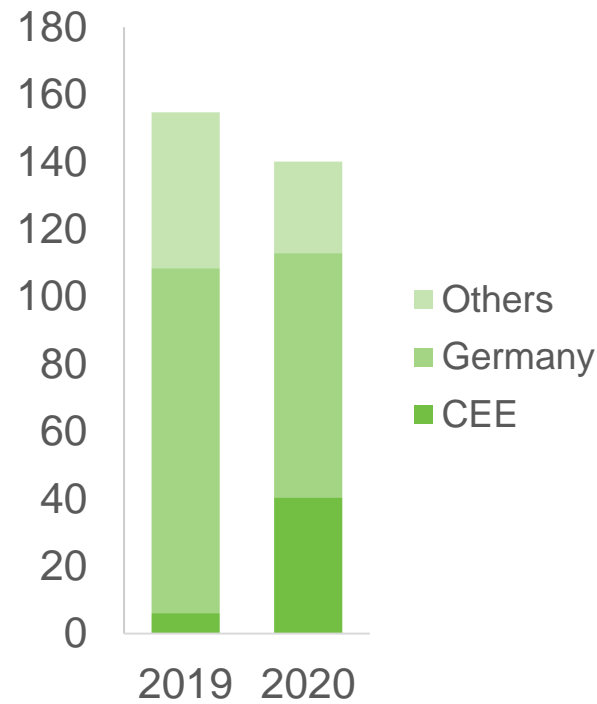
### Residential

#### Iberia



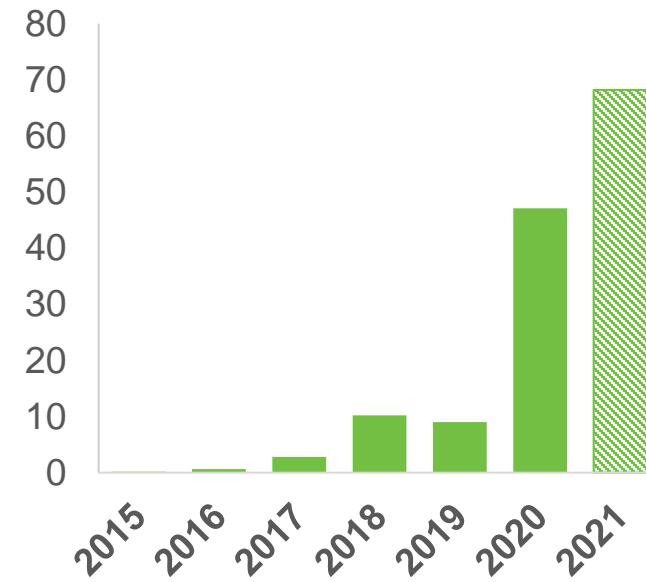
### C&I

#### Europe



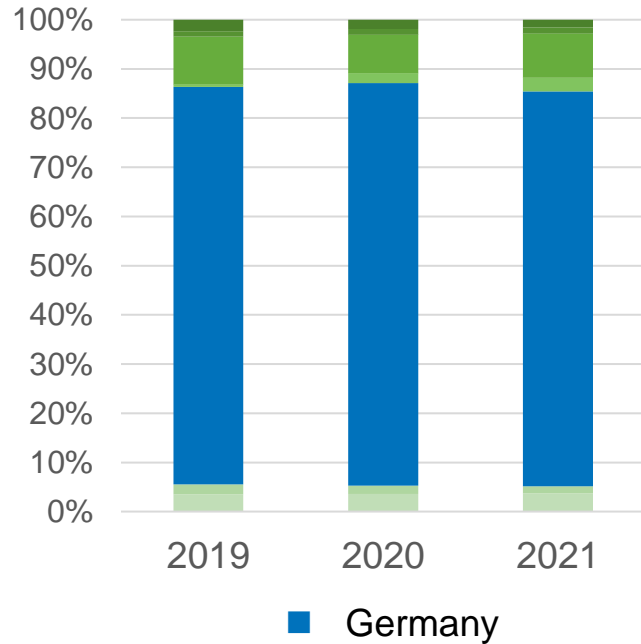
### Front-of-Meter

#### Nordics

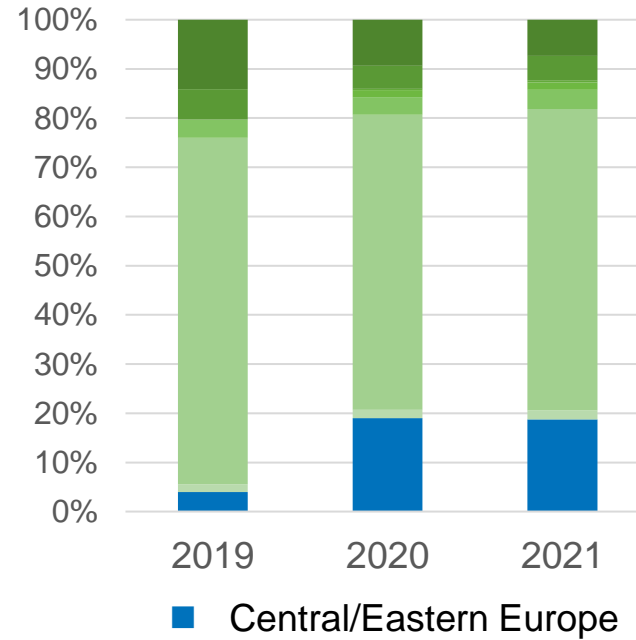


# Cumulative European energy storage market

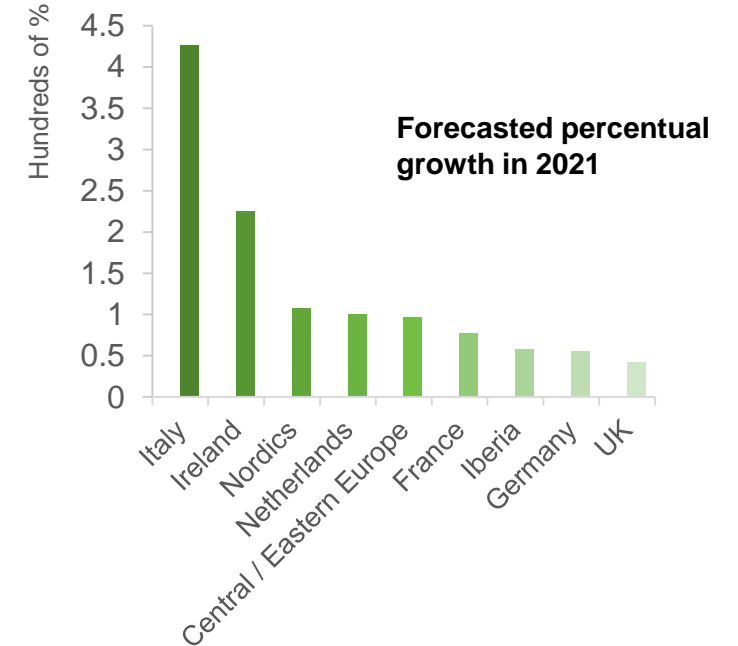
### Residential



### C&I



### Front-of-Meter



# Today's Webinar Agenda

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- > EU energy storage policy developments
- > Q&A

# EU energy storage policy developments

## EU Green Deal and COVID-19 Recovery Plan

### EU Green Deal

- Continues to be priority for EU policymakers as part of a 'green' recovery
- Many files with an impact for the energy storage sector:
  - ✓ Batteries Regulation
  - ✓ Energy System Integration and Hydrogen Strategies
  - ✓ Renovation Wave
  - ✓ Revision of Renewable Energy and Energy Efficiency Directives
  - ✓ Climate Law and 2030 Climate Target
  - ✓ Revision of the Energy and Environmental Aid Guidelines for state aid

### EU Recovery Plan

- NextGenerationEU: €750 billion temporary recovery instrument
- The Recovery and Resilience Facility is the centrepiece of NextGenerationEU - €672.5 billion in loans and grants
  - ✓ Member States will prepare recovery and resilience plans by April 2021, investment projects must be implemented by 2026.
  - ✓ At least **37% of the funding must go towards climate investment and reforms** – at least € 250 billion in funding



# EU energy storage policy developments

## Clean Energy Package Implementation

**The recast Electricity Directive should be transposed into national law by June 2021.**

**Many of the Clean Energy Package provisions have an impact on the storage market:**

- Definition of energy storage
- System operators should consider energy storage in network planning and ensure access to energy markets and balancing services
- Expanded role for ‘active consumers’ or ‘prosumers’, including energy communities
- Rules on ownership of energy storage by regulated entities

**However, the speed of Clean Energy Package implementation varies significantly across EU Member States.**

**A clear strategy to support energy storage roll-out is still missing at EU level.**

# Which of the following actions by European policymakers would have the biggest impact on storage deployment in the next 5 years?

- Comprehensive EU and national strategies to support storage roll-out
- Definition of storage deployment targets for 2030 and 2050
- More public funding for storage projects through the Recovery and Resilience Facility or state aid
- Support for private financing of storage projects, e.g. designating storage as green in the sustainable finance taxonomy
- Accelerated Clean Energy Package implementation

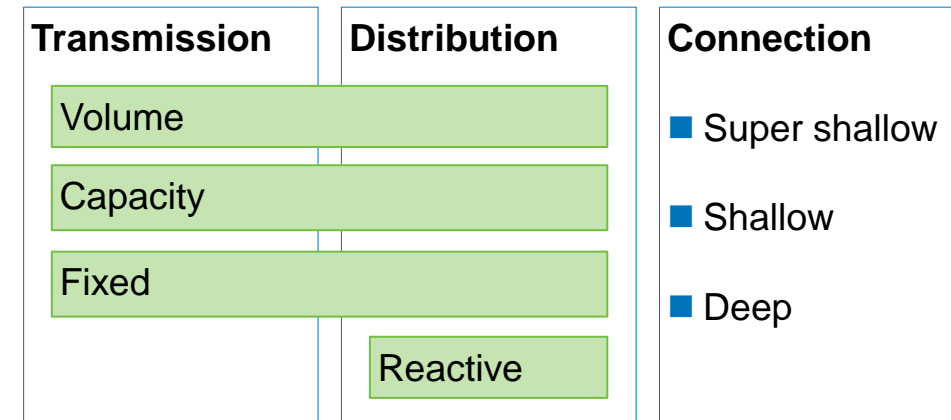
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- > Introduction
- > EMMES 5.0 market data and forecasts
- > CEP Implementation
- > **This year's hot topic: network charging**
- > Q&A

# Network charging

## Market hot topic

- Network charges are the costs that electricity network users pay for **connecting to and using those networks**.
- These two costs to consumers impact energy storage across **all market segments**
  - Front-of-Meter assets
  - Behind-the-meter assets
  - Residential customers
  - Energy storage often pays network charges twice
- Network charging reform is an **active policy area** across all of Europe



*Network charge structure*

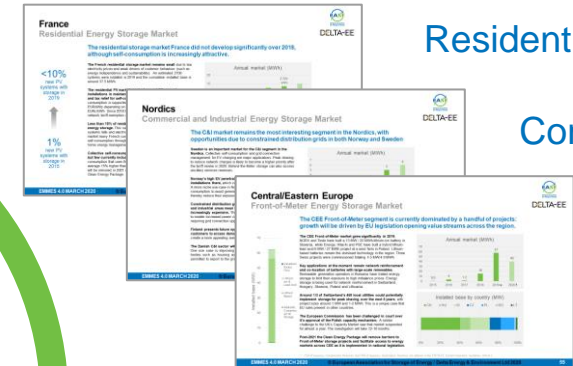
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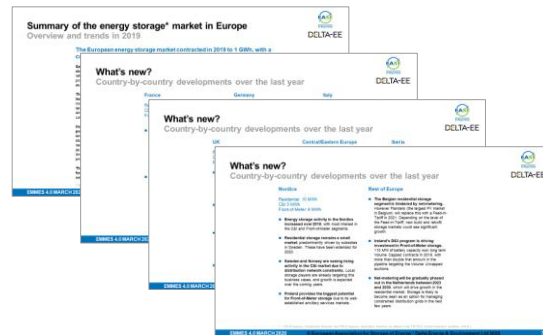
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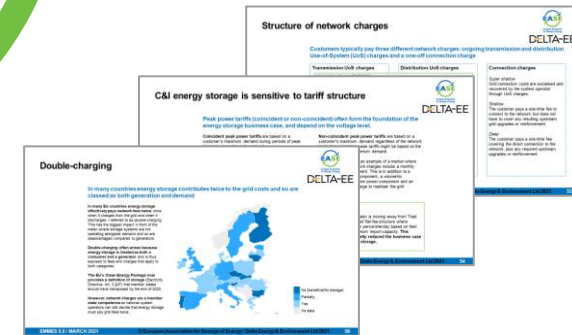
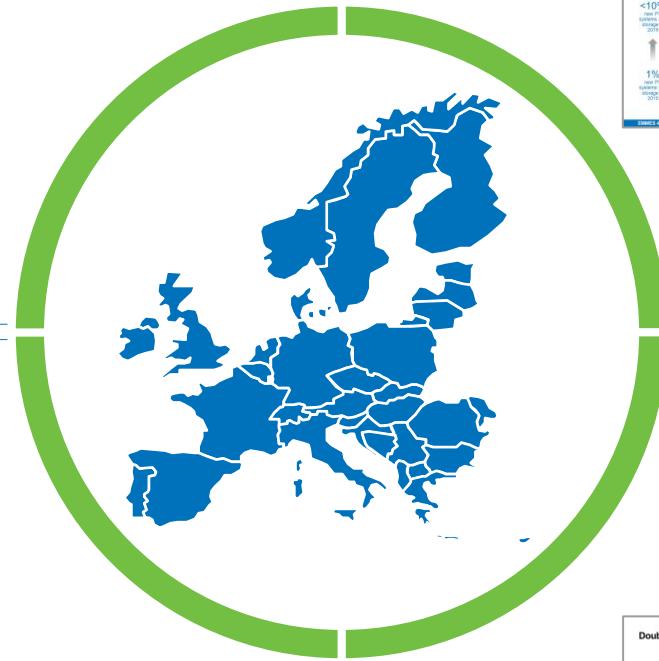


- Residential
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### Market Hot Topic: electricity system network charging

For more information contact Brittney ([b.elzare@ease-storage.eu](mailto:b.elzare@ease-storage.eu)) or Robin ([robin.adey-johnson@delta-ee.com](mailto:robin.adey-johnson@delta-ee.com))