Developing the Batteries of the Future: Actions to Take Today

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EU Industry Days

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EASE Members

European Association for Storage of Energy

The batteries manufactured now contribute to the creation of new systems and value chains

In 2030, the landscape will be completely different





Future energy system

In 2030, the landscape will be completely different

Off-grid & isolated grids	(Almost) 100% RE even on large islands
Grid services	Long-term power/energy services economic
VRE integration	Almost full usage of VRE, no curtailment
Sector integration	Major penetration, including hard-to-electrify sectors
Mobility	High presence of EVs, V2G services

An example: flexibility

Increase in need for flexibility

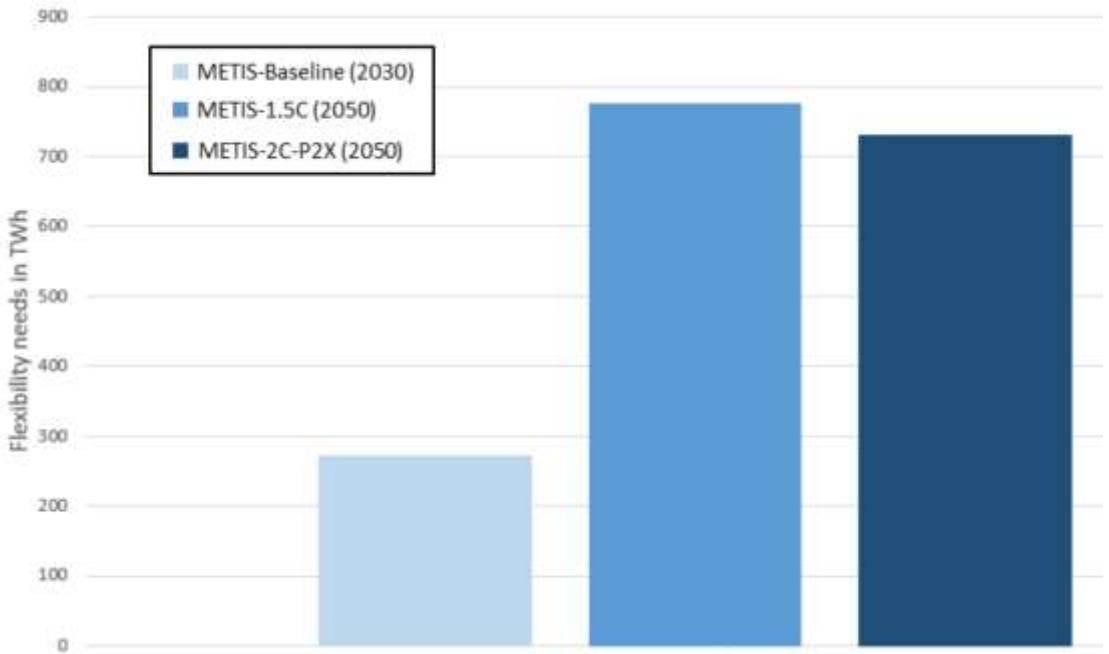


Figure 16 - Daily flexibility needs at EU28 level

Source: European Commission, Study on Energy Storage, 2020

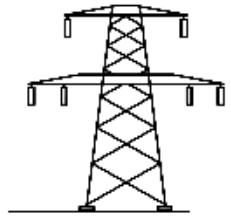
- *EU 2030 scenario: power demand of at least 3500TWh*
- *EU 2050 scenarios power demand of at least >7000TWh*

Batteries are a key flexibility provider

And the market is already changing…

Battery Storage Market

Significant changes in the past years

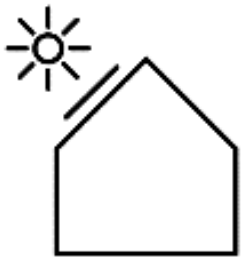


Front of the Meter

- New market products/ancillary services for new value streams, e.g.:
  - Fast Reserve in Italy
  - Firm Frequency Response in the UK

Commercial & Industrial

- New, dramatically diverse business cases across Europe
  - ✓ Agriculture: dairy industry to provide peak shaving in Ireland…
  - ✓ Public buildings to improve energy efficiency in Switzerland…



Behind the Meter

- New business models based on IoT, smart services
- Growing customer awareness
- Emergence of “energy communities”, V2G solutions

Source: EMMES 4.0

To untap this potential, Europe needs sustainable batteries…

- Where different technologies compete and provide different services
- Where innovation is strong
- Where environmental and social concerns are tackled, and a circular economy-approach is adopted

- **Where the legislation…**
  - Is technology neutral, avoiding picking "winners and losers"
  - Adopts ambitious, proper, science-based recycling rates and where batteries' content is recycled – e.g. within the industry, not necessarily in new batteries
  - Does not hinder innovation – e.g. avoiding performance and durability requirements that may be rapidly outdated and prevent manufacturers from introducing specific solutions for different clients
  - Does not overlap, ensuring legal clarity and proving certainty for investors

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