



European
Commission

Energy storage – latest European policy developments



Energy Hackathon

22 January 2024

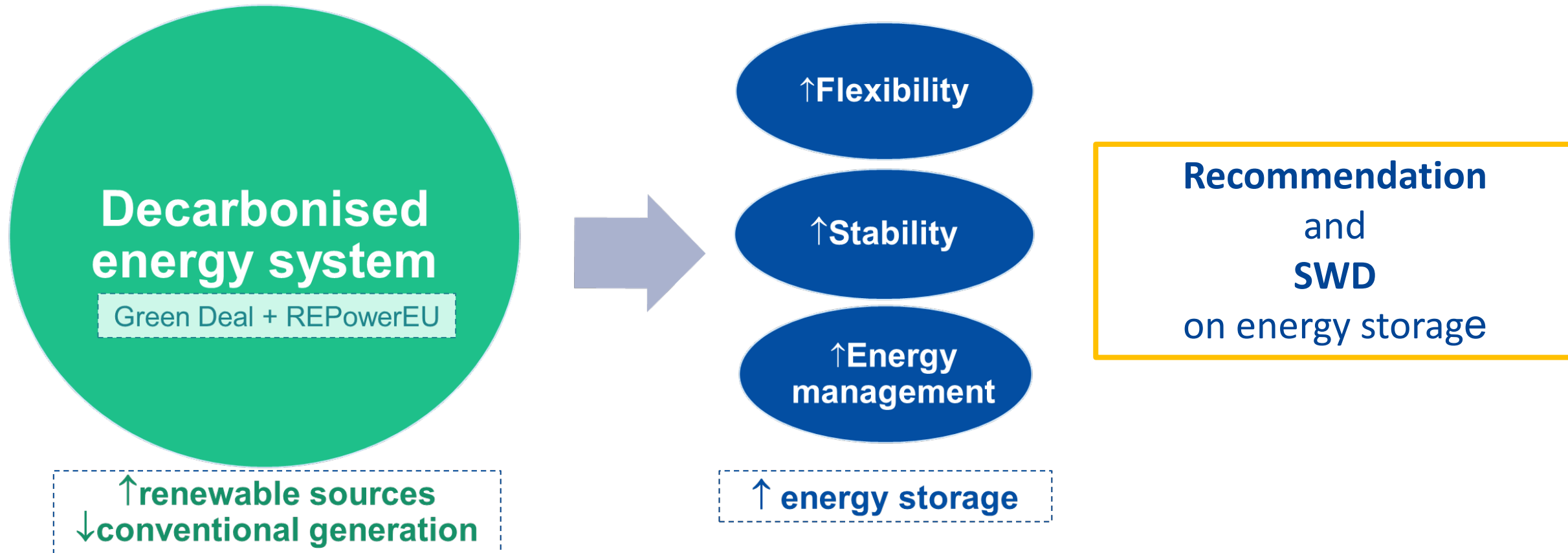
Energy Storage



Flexibility and storage in EU energy policy – where it is addressed?

- EMD (original Comm, proposal):
 - **national assessment of the flexibility needs**
 - establishment of objectives to increase **non-fossil flexibility**, especially from **demand response and storage**
 - possibility to introduce **new support schemes dedicated to non-fossil flexibility**
 - reform tackles the **use of flexibility services by system operators, as alternative or complementary to grid development**
 - evolution in the system operators' **remuneration through network tariffs**
 - requirement to **reward the use of flexibility services**, by adequately **remunerating operational expenditure**
- Energy storage recommendation
- addressing various issues to promote energy storage, in particular
 - **regulatory barriers**,
 - better consideration of **energy storage as part of grid planning** and operation and
 - financing, to ensure **services provided are remunerated** and that **energy storage can best participate** in existing and possibly new **support mechanisms**.
- NECPs:
 - Integrated reporting on storage under dimensions of energy security, market integration, and competitiveness, R&I

Why a recommendation on energy storage?



Summary of the recommendations

- **Regulatory:**

- **Double role of ‘consumer-producer’** - removing barriers, network design and charges and tariff schemes
- **Flexibility needs** in the energy system + objectives AND related policies and measures
- **Networks:** potential of energy storage, possible alternative, in planning + access + operation
- **Barriers** for demand response and ‘behind-the-meter’

- **Financing:**

- **Financing gaps** – identifying financing gaps, instruments providing stability and predictability
- **Monetisation of services provided** – services sufficiently remunerated, revenue stacking
- **Competitive bidding processes** + design of **capacity mechanisms**

- **Other**

- Accelerate energy storage deployment in **islands and remote areas**
- **Publication of important market data** (e.g. renewables curtailment, existing facilities) to facilitate storage investments
- **R&D** (including optimization) + consideration of de-risking instruments

Staff Working Document – the basis

- **Main pillars:**
 - **Role of flexibility and energy storage in energy transition** - increasing needs for flexibility, applications, global outlook
 - **EU regulatory framework and initiatives** - policy framework & public financing
 - **Existing EU legislation and initiatives:** H₂, System integration, Fit for 55, Governance Regulation
 - **Electricity market design (EMD):** definition, participation of storage and flexibility services in the electricity market, CMs
 - **Public financing and EU support:** MFF and NGEU (Recovery and Resilience), others, such as JTF, etc.
 - **Research and innovation:** Horizon Europe, Partnership programmes, Strategic Energy Technology (SET), LIFE
 - **Uptake of energy storage** – needs, best practices and opportunities
 - **Appropriate financing environment** (wider revenue stacking, long term visibility and predictability of revenues, supporting tools)
 - **Grid and permits fit for storage** (role of storage in network planning, specific permitting rules)
 - **Resilient energy storage supply chains** (critical raw materials, Comm. Action Plan and Critical Raw Material Act)
 - **Best practices and opportunities** (regulatory signals, implementation of existing legislation, behind the meter storage, data transparency, etc.)

Analysis of the NECP updates

- Most of the NECPs adequately describes flexibility and storage, BUT for many:
 - Missing clear objectives and/or specific and dedicated targets for storage
 - No dedicated strategy for flexibility and/or storage or measures targets
 - No indication of specific measures to accelerate storage deployment
 - No system integration strategy – but measures to promote DR, storage to promote flexibility
- Few countries:
 - Existing indicative targets, for storage as whole or partial (e.g. for battery storage or hydro)
 - Indicative targets or a dedicated strategy (e.g. with Storage Roadmap, but in some cases without milestones or objectives)
 - A couple of plans include information on: thermal storage, regional cooperation, research, investment funds available, etc.
- For most countries: Request to include in the final plan (2024) quantification of flexibility needs, clear objectives or targets for demand response and storage.

Main barriers for storage mentioned in the NECPs

- Lack of a **common definition of energy storage** in the regulatory framework
- Lack of **information on ancillary services** to develop a storage business plan based not on the energy market
- Lack of **guidelines on permitting**, leaving the responsibility for municipalities, leading to some incoherent requirements
- Lack of **economic incentives** due to sub-optimal price volatility.
- Absence of a **specific regulatory framework dedicated to storage**, which resulted in significant uncertainty for utilities
- **Double charging** and the limited participation of storage in the **ancillary services markets**
- Energy storage (except pumped hydro) is **burdened by capacity and injection fee** that over-charges its usage
- **Restrictions for the operation** of standalone batteries

The way forward - after the adoption of the recommendation

- After the adoption of the recommendation (March 2023): monitoring, how they are implemented in the Member States
- For the monitoring, the Commission needs to collect information, this is to be done in the next couple of years (NECP reporting is part of it)
- During the EMD negotiations: Initiative from the EP on proposing a ‘European Storage Strategy’ by 2025, EU level flexibility and storage targets:

“By June 2025, the Commission, after assessing the national indicative objective referred to [...] and communicated by the Member States through their integrated national energy and climate plans, shall submit a report to the European Parliament and to the Council assessing the national reports. On the basis of the conclusions of that report, the Commission may draw up a **Union strategy on flexibility, with a particular focus on demand response and energy storage**, that is consistent with the Union's 2030 targets for energy and climate...”

- If this is the new policy, it would make storage policies stronger