Energy Storage Coalition

CALL FOR AN ACTION PLAN ON ENERGY STORAGE

As the European Union moves into a new five-year term, it must continue addressing three critical and interconnected challenges: the pressure on the EU's global competitiveness, the need to improve the resilience of the EU energy system and the need to achieve our climate and energy targets. These challenges require **urgent and decisive actions**, particularly with regard to the deployment of a decarbonised energy system.

Energy storage is a key enabler of the renewable energy revolution. Alongside grid expansion & optimisation, storage plays a crucial role in ensuring that renewable energy is utilised efficiently, rather than lost to curtailment. Compared to today, the European Commission's Joint Research Centre projects that flexibility requirements will more than double by 2030 and grow sevenfold by 2050, underscoring the urgent need for more storage capacity[1].

The European Union's energy transition is indeed advancing rapidly, as evidenced by recent data from ACER's report on electricity wholesale market trends: generation by renewable energy sources (RES) reached new milestones in 2023, surpassing fossil fuels generation for the first time, and now contributing over half of the EU's total installed capacity, with wind and solar leading the way[2].

It is **good news for the EU's climate objectives, but also for energy security and reducing energy prices**. According to a 2023 report by the International Energy Agency[3], European consumers saved an estimated EUR 100 billion between 2021 and 2023 due to additional electricity generation from new solar PV and wind capacity. These renewables displaced around 230 TWh of expensive fuel generation which significantly contributed to lowering wholesale electricity prices in that period.

In this context, the recent EU legislative actions have partly laid the foundation for supporting energy storage. For instance, the 2019 Clean Energy Package set a clear definition of energy storage, and the most recent 2024 Electricity Market Design reform created a range of measures to support the growth of renewable energy sources and storage. These initiatives provide a long-term vision for investors, help secure revenue streams, and facilitate project deployment.

However, while the growth of renewables and new supporting instruments in Europe are promising, **continued progress still requires targeted support**.

That is why **the Energy Storage Coalition calls on the European Commission to deliver an Action Plan on Energy Storage** that would provide much-needed clarity on the regulatory tools available and address the remaining barriers to the widespread adoption of energy storage across the EU.

We need to act now

Member States and national authorities must now fully use the available tools to scale up energy storage deployment effectively. The current landscape presents an opportunity, but it requires Member States to apply these instruments optimally and tackle remaining obstacles.

The call for an Action Plan is timely. In 2020, the European Parliament already called for a strategy on energy storage in its "Report on a comprehensive European approach to energy storage"[4]. Today, after the Electricity Market Design reform and the availability of numerous supportive measures, there is a critical need for an overarching action plan that provides clear guidance to stakeholders.

Key elements for an effective Action Plan on Energy Storage

President Von der Leyen has underlined that an Electrification Action Plan and an initiative to roll out renewables and energy storage are among the top priorities of the new Commissioner for Energy and Housing[5]. The Energy Storage Coalition believes the Action Plan on Energy Storage would be a concrete step to foster energy storage deployment and should be a **key element of the incoming Electrification Action Plan**, together with broader measures to support other flexibility solutions.

The Energy Storage Coalition recommends to the European Commission that the proposed Action Plan on Energy Storage should include, at the minimum, the following key elements while involving all relevant DGs of the European Commission and other relevant institutions:

Provide dedicated incentives for energy storage

To fully unlock the potential of energy storage in Europe, it is essential to **create incentives that reflect the full value of storage in the energy system**. Storage technologies provide critical flexibility by absorbing excess renewable energy and discharging it when demand is high or when generation is low. However, current market designs do not adequately compensate storage for the full range of services it can provide.

Accordingly, the EU should establish dedicated incentives for the use of energy storage in key areas such as congestion management markets or Time-of-Use (ToU) tariffs which encourage grid users to shift their consumption when renewables are abundant. This should be based on robust flexibility needs assessment as well as transparent assessment of congestion needs in the grid, as foreseen by the Electricity Market Design. Similarly, incentives to hybridise could be integrated into renewable energy support schemes (CfD and auctions).

Moreover, energy storage faces important barriers to bidding in various electricity markets that are crucial for ensuring revenue stacking. Such barriers must be identified and tackled to **enable energy storage projects to capture multiple revenue streams** and improve business cases' economic viability.

Harmonise permitting and grid connection rules for storage deployment

Long and complex permitting procedures and grid connection requirements are a major bottleneck, slowing down renewable energy and energy storage deployment. **Streamlined permitting and grid connection rules at EU level are essential** for accelerating the project's timelines.

Sets of measures including clear time limits and the consistent implementation of rules such as one-stop shops for permits, or recognising renewable energy projects including energy storage as projects of overriding public interest – while still adhering to environmental impact assessments – would simplify market entry, reduce transaction cost and be a concrete support to the deployment of storage technologies.

In addition, it is important to specify streamlined grid requirements for aggregated renewable energy and storage systems, for new-built as much as for repowered projects. Grid requirements should be based on the export capacity of the aggregated asset, agreed upon by the developer and the grid operator, and not on the total installed capacity. The hybridisation of existing projects should also be facilitated.

Set a fair framework for network charges and levies

While energy storage projects should pay their fair share, they should not be unnecessarily burdened by double charging practices, a recurring hurdle in some countries that leads energy storage systems to be charged fees twice, with energy storage being considered both producers and consumers of energy. This issue increases the cost of storage projects while it does not apply to fossil energies they are meant to replace.

Moreover, **partial exemptions from determined network use charges and levies** should be encouraged in **recognition of the role energy storage plays in enhancing system flexibility** and efficiency, such as balancing the grid and reducing congestion.

Prioritise energy storage in capacity markets & launch dedicated auctions for energy storage and flexibility solutions

Member States should establish dedicated auctions for energy storage and flexibility solutions, ensuring that these projects have access to competitive support mechanisms.

The design of these auctions **should not discriminate against specific net-zero technologies** and be opened to all five energy storage families of technologies[6], provided that they are proven consistent with climate targets. All necessary periods should be considered, including short, mid (e.g multi-day) and long-term needs. This diversity of solutions and their characteristics are often overlooked or poorly understood, leading to missed opportunities.

This could be done by **prioritising net-zero technologies in capacity markets over fossil-based solutions**. Capacity remuneration mechanisms should be designed to incentivise solutions that contribute to long-term decarbonisation goals, ensuring that any technology qualifying for these markets aligns with the EU's net-zero objectives by 2050. Moreover, the European Commission should provide guidance on the design of capacity remuneration mechanisms to help ensure the implementation of well-structured systems.

Monitor energy storage growth in the next National Energy & Climate Plans

The European Commission and Member States should ensure that non-fossil flexibility solutions – such as energy storage, demand-response and smart grid technologies – are fully incorporated and prioritised in the next National Energy & Climate Plans (NECPs). While NECPs are key instruments for outlining how national authorities will meet their renewable energy and decarbonisation targets, **the role of flexibility solutions is often overlooked**.

Non-fossil flexibility plays a critical role in integrating higher shares of renewables in the energy system. As renewable generation increases, the need for clean flexible solutions to balance supply and demand will also grow exponentially. Unfortunately, these solutions are not always given sufficient visibility in national planning.

Therefore, NECPs should include storage objectives and indicate related measures, in accordance with the 2023 Commission recommendations[7]. Moreover, the European Commission should guide Member States in applying their flexibility needs assessments and setting **flexibility targets fully consistent with national and cross-border grid planning**, which is crucial to avoid planning grids and flexibility in silos.

As indicated above, these points are only possible elements and should not be seen as an exhaustive list.

Conclusions

The growth of renewable energy sources is a vital step towards achieving the EU's climate and energy goals. Along with grid expansion & optimisation, the EU's ambition depends on expanding energy storage capacity to meet **increasing flexibility demands and to lower electricity prices**.

The Energy Storage Coalition urges the European Commission to deliver an **Action Plan on Energy Storage**, **building on the work already done by the DG Energy and the European Parliament**, that will enable Member States and stakeholders to fully **leverage the opportunities available**, providing clarity for investors, removing barriers, and ensuring that energy storage can fulfil its crucially needed role in Europe's energy transition.

Footnotes

1 - Joint Research Centre, Flexibility requirements and the role of storage in future European power systems (2023)
2 - ACER, Key developments in EU electricity wholesale markets - 2024 Market Monitoring Report (2024)
3 - IEA, Renewable Energy Market Update (2024)
4 - European Parliament, Report on a comprehensive European approach to energy storage (2020)
5 - European Commission, Mission letter to Dan Jørgensen (2024)
6 - EASE, Overview of energy storage technologies, accessed on 11 October 2024
7 - Commission recommendation of 14 March 2023 on Energy Storage – Underpinning a decarbonised and secure EU energy system

Energy Storage Coalition

The **Energy Storage Coalition** is an organisation constituted of four key clean energy actors: SolarPower Europe, The European Association for the Storage of Energy, WindEurope and Breakthrough Energy.

Our aim is to promote the benefits of energy storage and advocate for a more favourable legal, financial and political framework for its deployment.

Discover more at: www.energystoragecoalition.eu