



EASE Position Paper on Energy Storage in the Renewable Energy Directive III

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Introduction

EASE welcomes EU policymakers' efforts to revise the Renewable Energy Directive II (RED II) as part of the 'Fit for 55' package. Accelerating the deployment of renewable energy sources (RES) is essential to achieve the EU's ambitious goals of a 55% GHG emissions reduction by 2030 and carbon neutrality by 2050.

However, simply deploying more RES is not enough; RES need to be integrated effectively into the system and their use in the heating and cooling, mobility, and industry sectors must be maximised.

Energy storage is a key enabler of a RES-dominated system. The transition to a renewable-based energy system needs to be supported by energy storage in order to ensure security of supply, efficient energy system operation, and the competitiveness of EU industries.

In the context of the revision of RED III, policymakers should consider measures to support deployment of storage technologies, since:

- Energy storage can increase the share of renewable electricity used in the energy mix by reducing or avoiding curtailment of renewable electricity generation. By shifting the use of excess renewable electricity forward in time to periods of deficit, RES essentially become dispatchable, which greatly facilitates their integration into the energy system, and ensures optimal use of installed RES capacities.
- When optimally located, energy storage solutions can optimise the use of the transmission and distribution grid, avoiding congestions, and provide ancillary services, including services to address emerging needs for the system such as fast frequency and inertia.
- Energy storage solutions can also enable demand participation in a more active way, opening up possibilities for active consumers and renewable energy communities to engage with the energy transition. Unlocking the potential of demand-side flexibility can play a valuable role in supporting the integration of renewables by providing system flexibility and optimising energy consumption at all levels of the system.
- Energy storage also plays an important role in linking the electricity sector with the heating and cooling, mobility, and gas sectors, supporting direct and indirect electrification. Thermal energy storage can help decarbonise the heating and cooling sectors, which are currently heavily dependent on fossil fuels. Energy storage can also support smart charging and vehicle-to-grid solutions, thereby supporting the decarbonisation of the mobility sector.
- Finally, some storage technologies, for example Power-to-Gas and Power-to-Liquid, can be used to produce renewable and/or low-carbon fuels (e.g. synthetic methane, methanol, hydrogen) or chemicals (e.g. ammonia).

The revision of RED II as an important opportunity to reduce barriers to energy storage deployment, build on the provisions of the 'Clean Energy for All Europeans' Package, and position storage alongside RES as the backbone of the energy system.

EASE Recommendations for the RED III

1. Commit to a higher level of ambition in order to deliver on the EU Green Deal and the 2030 and 2050 decarbonisation targets. The RED III targets should be revised to align with the 2030 Climate Target Plan:

- Increase the overall Union target for renewable energy in 2030 to 38-40% and make it binding both at EU and national level.
- Increase the targets for renewable energy in transport and renewables in heating and cooling.

2. Define a comprehensive methodology to assess flexibility needs, which could be used to define an energy storage target to support the cost-effective integration of RES:

- This target should be supported with a comprehensive enabling framework at EU level to foster the cost-effective deployment of storage. This framework should remove barriers to deployment (addressing e.g. unwarranted grid fees and taxes, access to markets) and fully recognise the unique attributes of energy storage compared to other energy system assets (generation, transmission/distribution, consumption).
- The methodology and target should be technology and location neutral (considering all types of storage at residential, commercial & industrial, and grid-scale as long as they are able to provide the necessary applications) and reflect the need for flexibility at different timescales serving the electricity, heating and cooling, gas, mobility, and industry sectors.
- Article 24, paragraph 8 of RED II should be revised to clarify this assessment methodology.

3. Revise Articles 4 and 5 of RED II on RES support schemes to explicitly include energy storage projects:

- Support schemes should explicitly be open to RES + storage projects to encourage more hybrid projects. This will become increasingly important at higher shares of RES when new capacity is built to replace conventional dispatchable generation that is going offline.
- Particularly in situations of high share of RES deployment that may be creating congestions or other system constraints, co-localisation of RES with storage should be incentivised. A possible way to incentivise co-localisation could be to require a flexibility/dispatchability criteria to participate in RED support schemes. However, co-localisation should not be mandatory, as the energy storage facilities should be built where they can provide the most socio-economic value. Rapid and effective implementation of the Clean Energy Package is essential to ensure that energy storage facilities developed as part of RES support schemes are able to access different revenue streams and markets.
- For islands and outermost regions (article 4 para 7) in particular, there should be more focus on support schemes considering energy storage, since there are fewer alternative flexibility options available.

4. Reduce barriers to deployment of hybrid RES + storage projects:

- Ensure that RES electricity fed into storage and subsequently discharged is still considered renewable under renewable energy certification schemes as well as guarantee of origin schemes (articles 19, 27).
 - This requires a comprehensive methodology to avoid double counting and to differentiate clearly between energy storage charging from the grid versus charging directly from RES, even if using the public grid.

- Furthermore, stored RES must be allowed to feed an electrolyser and produce renewable hydrogen, provided that the storage installation can demonstrate that the stored energy is renewable. An electrolyser could be fed by multiple RES installations (wind or solar), but also by renewable energy storage (e.g. batteries or pumped hydro storage). The storage can flatten the electrolyser's consumption profile, resulting in higher operating hours and reducing the production cost, which is critical for an effective decarbonisation of hard-to-electrify uses.
- Further support the uptake of private renewable Power Purchase Agreements (PPAs) for RES installations and encourage ones with RES + storage facilities. An installation with PPAs should also be eligible for other support schemes and fiscal incentives should be considered to improve the PPA market. PPAs should have a minimum length of 10 years to ensure revenue certainty for project promoters.
- Joint projects between Member States (Article 9) and Member States and Third Countries (Art 11), as well as joint support schemes (Article 13), should also be open to energy storage.
- Regional cooperation for RES deployment must go hand in hand with regional cooperation focused on means to integrate RES (e.g. energy storage, interconnections, distributed flexibility, etc.). Regional cooperation for the integration of RES should go beyond the current TEN-E Regional Groups and include: spatial planning (e.g. interconnectors, offshore grids); electricity and gas / hydrogen national TYNDPs (scenarios, CBA); infrastructure gaps identification (considering local and cross-border alternatives); and deployment of smart electricity grids and storage.
- Socio-economic benefits should be taken into account when determining energy storage location. The storage facilities should be built where they can provide the most socio-economic value. Therefore, co-localisation with RES projects should be incentivised but not mandatory.

5. Simplify and accelerate administrative procedures and permitting for energy storage facilities.

- Article 15 should be revised to clarify that proportional national rules concerning the authorisation, certification, and licensing procedures for RES and associated transmission and distribution networks also apply to energy storage projects.
- EASE supports the 'simplified and less burdensome authorisation procedures, including a simple-notification procedure' (Article 15, para 1 (d)) for decentralised devices, and for energy stored from renewable sources. It should be clarified that these authorisation procedures should apply not only to storage directly co-located with renewables (as may be interpreted from this article), but to all energy storage, which will over time be storing increasing amounts of energy from vRES as overall RES levels increase.
- Simplified permitting and authorisation procedures should in particular be promoted for hybrid RES projects such as RES+storage.
- Article 15 paragraph 3 should require authorities at national, regional and local level to also consider provisions to support storage deployment and consider it in local and regional infrastructure planning, particularly when it comes to power-to-gas and thermal storage projects.

6. Support the deployment of thermal energy storage, both large-scale and small-scale, to help achieve the targets for RES in heating and cooling:

- Member States should devise long-term strategies for decarbonising heating and cooling with binding milestones and measures taking into account synergies with other policy areas (e.g. comprehensive heating and cooling assessments under Article 14 (1) of the EED and the long-term building renovation strategies under Article 2a of the directive amending the EPBD).

- Consider a specific target for waste heat and cold use, and the obligation for district heating and cooling network operators to connect waste heat and cold suppliers to be included in Article 23.
- EASE supports making it easier for consumers to switch to renewable suppliers within a network via either a single buyer model or third-party access or guarantees of origin, and recommends strengthening disconnection rules for consumers in Article 24.
- Raising consumer awareness is key to achieving advances in energy efficiency. Therefore, Article 24 should improve information to consumers on the energy performance and renewable shares of district heating and cooling, including to low-income and vulnerable consumers.
- Article 24 should include increased transparency of heat and cold supply prices to consumers and their components, including energy and network costs, taxes, and levies. Furthermore, EASE sees the need to improve prosumer rights by ensuring that it is possible for consumers (individually, jointly acting, or through energy communities) to feed renewable heat or waste heat and cold into the network.

7. Add a renewable hydrogen definition encompassing all of its potential uses:

- The Directive mentions renewable gases, including hydrogen, several times, but there is no definition for this. At the moment, the only related definition at Article 2(36) focuses on transport applications. Other uses, e.g. in the context of the electricity system (Power-to-Gas-to-Power), gas system, and industry are not envisioned. This is a significant shortcoming as it does not take into account smart sector integration necessities for achieving the decarbonisation targets.

8. Ensure that together, the revised Third Energy Package for Gas and RED III provide a clear certification system for renewable and low-carbon hydrogen with the aim to:

- Develop a harmonised definition for renewable and/or low-carbon hydrogen based on a transparent methodology with reference to its carbon footprint and the nature of the electricity used for its production in order to avoid fragmentation of the market.
- Develop a mutual recognition of Guarantee of Origins to facilitate cross border trade, and harmonise at EU level the fact the GO can apply to low carbon energy sources.
- Launch an EU-wide certification system and align it with national registries in a timely manner.
- Minimise administrative barriers to the certification of renewable and/or low-carbon hydrogen while also ensuring a robust certification system.
- Ensure fair and effective competition between technologies and energy carriers and between imported H₂ and H₂ produced in the EU.
- Finally, the renewable hydrogen definition in RED III should allow for RES to feed an electrolyser and produce renewable hydrogen, provided that the storage installation can demonstrate that the stored energy is renewable. An electrolyser could be fed by multiple RES installations (wind or solar), but also by renewable energy storage (batteries or pump storage). The storage can flatten the electrolyser's consumption profile, resulting in higher operating hours, and thus reducing the production cost which is critical for the decarbonisation of hard-to-electrify uses/sectors.

9. Expand articles 21 and 22 on renewable self-consumers and renewable energy communities to incentivise smart charging and vehicle-to-grid applications, which can maximise the uptake of RES in transport.

- Develop network tariffs and pricing structures enabling time-of-use differentiation (even in capacity charges) to enable vehicle-to-grid integration and support integration of the mobility and energy sectors.
- Avoid double-charging of taxes and levies on electricity generated from storage facilities: owners pay once when charging their storage asset (EV battery) and should not pay again when they feed electricity back into the grid.
- Ensure that aggregated EVs are able to participate in all electricity markets, such as capacity markets, balancing and other system services, by setting up a proportionate administrative framework and avoid undue administrative burden and barriers (Article 15).

About 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 further the cost-effective transition to a resilient, low-carbon, and secure energy system. Together, EASE members have significant expertise across all major storage technologies and applications. This allows us to generate new ideas and policy recommendations that are essential to build a regulatory framework that is supportive of storage.

For more information please visit www.ease-storage.eu

Disclaimer:

This response was elaborated by EASE and reflects a consolidated view of its members from an energy storage point of view. Individual EASE members may adopt different positions on certain topics from their corporate standpoint.

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