



EASE Inputs on Battery Sustainability and Ecodesign

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Introduction

Energy storage technologies are essential for both sustainable mobility and the integration of increasing shares of renewable energy sources into the energy system while maintaining an efficient and secure operation of the grid. Different policy measures are needed to promote the research, development, and deployment of all energy storage technologies, including batteries: R&D funding must be directed towards this challenge and the energy market design must create a level playing field for all technologies.

For batteries in particular, it is important also to develop requirements on ethical sourcing of raw materials as well as strict sustainability requirements (e.g. touching on durability, low carbon footprint, reusability, recyclability of batteries, etc).

EASE supports efforts by EU policymakers to bolster the manufacturing and deployment of safe and sustainable battery technologies across the EU and believes that a proposal for sustainability requirements could have a positive impact on the industry. However, a transparent dialogue between policymakers, industry, and other stakeholders is crucial to ensure that the proposals are practical, feasible, and technology neutral.

First EASE inputs on this topic have already been provided in the reply to the Commission's Consultation on Sustainability Requirements for Batteries.

EASE Comments on Sustainability Requirements, Ecodesign, and Revision of the Batteries Directive

1. Format of the Legislative Proposals

- The scope and form of the legislative proposals should be carefully considered. The Batteries Directive gives the necessary flexibility to Member States to meet the different targets while following their established waste systems, and it is sensible to revise these provisions while keeping them in the format of a Directive (not a Regulation).
- However, sustainability requirements/ecodesign criteria for batteries should be applied directly across all Member States. We therefore advise preparing two different legal instruments: (1) a Regulation covering sustainability requirements/ecodesign aspects and (2) a revised Batteries Directive.

2. Carbon Footprint Calculation

- This is a very complicated aspect which requires further in-depth discussions between policymakers and industry.
- There are several factors which render carbon footprint calculation highly complex:
 - It is very difficult to obtain reliable and comparable data across the entire value chain, taking into account also variations between manufacturers and locations.
 - The footprint is closely linked to the use of the battery over its lifetime. For an EV battery, the calculation would have to determine a given use case (e.g. a car of a certain size, driving a given number of km over x years, ...). For stationary storage, a different use case would have to be determined, taking into account the specific service(s) that are to be provided by the battery. CO₂ footprint of recycling processes must also be taken into account.

3. Carbon Border Tax

- A carbon tax could potentially create a level playing field, support the competitiveness of EU industry, and reduce risks of carbon leakage. This tax, if implemented correctly, could also support the development, manufacturing, and deployment of clean energy technologies in the EU. Before endorsing this initiative, EASE believes more detailed proposals must be made available and discussed with the entire battery manufacturing value chain.

4. Design for Recycling

- EASE supports efforts to improve recycling rates for batteries. Recycling efficiency and collection targets should be updated in the Batteries Directive. The best way to cover recycling of different battery types is to follow a cell level and chemistry approach: cells can first be sorted into different chemistries and then the steel, copper, and other materials can be collected.
- Recycling of all the different battery components is possible; however, cost is the major barrier. As recycling volumes increase, cost efficiency of recycling will improve. Policymakers should seek to address this challenge, as it will take some years before enough batteries from EVs enter the recycling phase.
- With regards to design for recycling, one practical and effective point policymakers could focus on is requirements for battery manufacturers to facilitate safe dismantling of battery containers and packs as well as their safe handling and transport to licensed recycling facilities.

5. Critical Raw Materials

- Policymakers should prioritise strengthening the European battery recycling industry, as this can have an important impact on the recycling and reuse of CRMs. Doing so within Europe is one way to help reduce dependency on imported materials.
- The export limitations in the Batteries Directive could be strengthened in order to encourage more recycling of CRMs within Europe.
- Regarding transparency on sourcing, we think this item has to extend farther than critical raw materials only. When assessing the sustainability of a battery, the level of implementation of social and labor rights along the supply chain should be tracked, and the performance of the supply chain on this item should be part of the battery rating.

6. Product Guarantee or Minimum Lifetime

- EASE does not support a minimum lifetime for batteries or a product guarantee of 8-12 years. Such an extended guarantee is not the case for other products on the market. The market should decide what kind of performance and lifetime is expected of battery products.
- We believe there is no rationale for the battery warranty proposed by the Ecodesign Preparatory Study (Task 7.1) of 10 years for mobile applications and 12 years for stationary applications. There is no single application or set of applications for stationary storage across the EU; therefore, it does not make sense to define an arbitrary warranty duration or lifetime for all stationary systems.

7. Technology Neutrality

- The proposals for sustainability/ecodesign and the revised Batteries Directive should be technology neutral, in order for the market to decide on the technology solutions and also to allow for new chemistries and technologies to come onto the market.

8. Ecodesign Preparatory Study

- While we appreciate the work undertaken by VITO on this study, and acknowledge the complexity of their task, EASE finds that some aspects of the study are not realistic or reflective of current industry data. Industry could have been involved at an earlier stage to support the study consortium by delivering recent data and insights directly from battery manufacturers, particularly regarding stationary applications.
- Some of the data and information concerning product safety, ecological impact of mining raw materials, and energy consumption during cell and battery manufacturing seem to be based on outdated literature or incorrect assumptions.
 - For instance, the assumed calendar lifetime of the installed battery (25 years for stationary applications – see Task 7 document, page 20) and assumed service life of the battery (around 17 years for stationary applications) are very challenging for electrochemical energy storage systems. Also, the fact that a longer lifetime is expected for stationary applications than for mobile applications is not justified.

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.

Policy Contact: Jacopo Tosoni | Policy Officer | j.tosoni@ease-storage.eu | +32 (0)2 743 29 82



**European Association
for Storage of Energy**

Avenue Adolphe Lacombé 59/8

1030 Brussels | Belgium

Tel: +32.2.743.29.82

@EASE_ES

www.ease-storage.eu

info@ease-storage.eu

