

Position paper on Performance and durability requirements in the Batteries Regulation¹

Our suggestions to policy-makers

1. **Keep the declaration, remove the minimum threshold**
 - Performance and durability are competitive elements and it is unnecessary to regulate them
 - There is a clear risk of overdimensioning and overdesign of batteries, above all if inappropriate, one-size-fits-all targets are established, with consequent waste of resources
 - Setting minimum performance requirements might interfere with other design parameters (cost, safety, lifespan, specific power and energy)
 - Durability is already accounted for with the carbon footprint criteria
2. **Avoid duplications with UNECE and Ecodesign Directive**
 - The informal UNECE Working Group on Electric Vehicles and the Environment is developing in-vehicle durability requirements
 - Stationary batteries potentially fall under the scope of the Ecodesign Directive
3. **Focus the scope on specific applications:** Electric vehicle and stationary energy storage batteries.
 - The industrial battery sector includes hundreds of applications
 - The same requirements cannot be applied to very different applications and technologies
4. **Standards should be developed by Standardisation Committees**, not by the Commission; hence we strongly recommend removing Article 16

The key objective of the provisions on performance and durability included in Article 10 is of course shared by the industry: batteries placed on the EU market should be durable and high performance. Consumers and users in general should have information on performance and durability aspects of their batteries, and we therefore welcome the requirement to disclose this information. Setting up minimum performance requirements, however, might have several unintended consequences, and we therefore call for the removal of the minimum threshold.

1. **Keep the declaration, remove the minimum threshold**

In relation to electric vehicles, we should recognise that the performance and durability of the traction battery is basically equivalent to the performance and durability of the vehicle. This is a competitive

¹ With this position paper, EUROBAT would like to provide its position on the proposal to regulate performance and durability requirements included in Article 10, 16 and Annex IV of the Proposal for a Regulation 2020/353 concerning batteries and waste batteries.

element for carmakers, and it might be unnecessary to set up minimum targets for such key competitive aspects. On the other hand, consumers should get information about the performance and durability of their vehicles. This information is often already shared for marketing reasons, but it would be positive to standardise the way this information must be accounted for and how to disclose it.

Similar considerations can be made for industrial batteries. These batteries are made for professionals, and in some cases they are even tailored-made to serve specific needs. Therefore, performance and durability are generally a key element of the selection process. In addition, industrial batteries includes hundreds of different applications and several technologies (see also point 2). Adopting one-size-fits-all requirements would be clearly impractical, since low targets would be ineffective, while higher targets might be impossible to meet for specific applications.

A single test condition does not mirror the multiple application duties batteries encounter, and the easiest way for a battery to comply with excessive minimum requirements is the overdimensioning and overdesign of batteries compared to the needs of the specific application. This would result in a waste of resources and, paradoxically, in a reduction of energy efficiency. Larger batteries require more resources to be manufactured, and in the case of electric vehicles also more energy to be operated, since their weight is higher.

Besides, as also recognised by the impact assessment, “fixing minimum values of technical parameters related to performance (such as capacity fade or internal resistance) may have a detrimental effect on other design parameters, such as charging time or specific power”². Overall, setting minimum performance requirements might indeed interfere with other design parameters (cost, safety, lifespan, specific power and energy). Manufacturers are better placed to assess the interactions of these elements and can tailor them depending on the application. This point was mentioned in the impact assessment, but it was not addressed.

Finally, durability is already accounted for with the carbon footprint criteria: the service life of the battery is considered for the calculation of the functional unit.

2. Focus the scope on specific applications: electric vehicle and stationary energy storage batteries

‘Industrial batteries’ is a very broad and diverse category, including hundreds of very different products and several battery technologies. A non-exhaustive list of batteries falling under this category includes batteries for stationary storage at different grid-levels (large power plants and solar parks, ancillary services at grid-level, residential storage), off-grid applications, telecom towers, uninterruptable power supply (UPS), batteries for motive power (forklift trucks, ground support equipment, cleaning machines, golf carts, railway applications, construction and agricultural

² Impact Assessment Report Accompanying the document Proposal for a Regulation of the European Parliament and of the Council concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) 2019/1020, Page 228.

machines) and so on. In some cases, tailor-made industrial batteries are manufactured in very low volumes to answer the needs of individual customers.

This complexity is not limited to the applications. A variety of battery technologies can be used for different industrial applications. These technologies can be split into five major families: lead-based batteries, lithium-based batteries, sodium-based batteries, nickel-based batteries and flow batteries. All these technologies have their own specific features that are fit for specific types of applications.

Considering this variety, the Preparatory Study on Ecodesign and Energy Labelling of batteries³ included in its scope only “High energy rechargeable batteries of high specific energy with solid lithium cathode chemistries for e-mobility and stationary energy storage (if any)”. It even explained why non-lithium technologies (lead, nickel and sodium) used in industrial applications should not be taken into account. For instance, the study states that Uninterruptable Power Supply (UPS) systems “have a complete different functional unit, i.e. provide back-up power during occasional power interrupts, which would lead to an inconsistent study”, while “industrial back-up batteries [...] can have each very different requirements (duration of back-up, service life, ability to withstand temperature, shock and vibrations, ability to perform additional services).”

These back-up batteries are either stand-by (back-up power for IT) or mobile (back-up power for aircraft or trains) and are not designed to deliver energy across thousands of cycles. They stand still and discharge very infrequently (in many instances less than once a year) in case of grid failures. In this case, the criteria of energy round trip efficiency included in Annex IV is simply irrelevant and should not be used to assess the performance of these batteries.

Considering these complications, we would therefore suggest to better clarify the scope of this proposal and focus on specific applications with higher potential for decarbonisation – that is, electric vehicle batteries and stationary energy storage batteries. Given this more targeted scope, it would also be possible to remove the 2 kWh threshold, since all electric vehicle batteries and stationary energy storage batteries are generally well above this threshold.

3. Avoid duplications with UNECE and Ecodesign Directive

A clear concern of the industry is also the risk of duplication, in particular in relation to the UNECE Working Group on Electric Vehicles and the Environment and with the Ecodesign Directive.

In relation to electric vehicles, as also recognised by Recital 23 of the Batteries Regulation, the informal UNECE Working Group on Electric Vehicles and the Environment is developing in-vehicle durability requirements, and therefore “this Regulation is refraining from setting additional durability requirements”. However, Article 10 and Annex IV are also applicable to electric vehicles, so we do not understand how this duplication will be avoided.

At the same time, it must be recognised that stationary batteries fall potentially under the scope of the Ecodesign Directive, creating again a risk of double regulation. This is actually a very concrete

³ Preparatory Study on Ecodesign and Energy Labelling of rechargeable electrochemical batteries with internal storage under FWC ENER/C3/2015-619- Lot 1 TASK 1 Report Scope (Definitions, Standards and Legislation) For Ecodesign and Energy Labelling

possibility. The Preparatory study for the Ecodesign and Energy Labelling Working Plan 2020-2024 includes Uninterruptable Power Supply Systems (pp 18-37) and concluded that there is now a good reason to revisit the UPS as a possible topic for the Ecodesign Working Plan 2020-2024. If this will be the case, UPS systems will be regulated twice, under the Batteries Regulation and under the Ecodesign Directive. This possibility must clearly be avoided.

4. Standards should be developed by Standardisation Committees, not by the Commission

Article 16 complements the provisions of Article 10 and Annex IV laying down how common specifications for those articles will be adopted. In this vein, we found unacceptable that the Commission is planning to ignore existing battery standards and task the development of standards to the Joint Research Centre. Standards on batteries are developed internationally, in committees composed of experts from each national standardisation committee. It is unacceptable that the Commission wants to take the place of national technical experts on matters which are by nature extremely technical, and that refer to how the products are designed, produced and operated. Besides, the criteria for the Commission to act are extremely vague, referring to “undue delays” or if it “considers that relevant harmonised standards are not sufficient”.

The execution of Article 16 would have a negative impact on Europe’s competitiveness and local employment and would, thus, be counter-productive in view of the goals of the European Strategic Action Plan on Batteries. As such, the promising contribution of batteries to the achievement the goals of the Clean Mobility Package as well as the decarbonisation goals of Europe’s Green Deal, would be at stake.

EUROBAT welcomes the cooperation with the European Commission (DG GROW / DG ENV) to discuss the needs and resources for developing harmonised standards to support the new legislative framework of batteries. However, such harmonised standards should always be developed within the existing European CEN/CENELEC framework.

Battery standards on performance, safety and sustainability are technology specific and strongly application-oriented to serve/optimize their integration. A large variety of such original or globally-derived CEN/CENELEC standards already exists for lead, nickel and lithium based battery technologies, often specifically linked to the application. To develop an alternative common specification that would include all application-conditions through an implementation act that would bypass CEN/CENELEC is simply an unrealistic and impossible task.

CEN/CENELEC is best positioned to be the independent facilitator between industry, consumers and regulators to proactively support European competitiveness, the protection of the environment and sustainable growth for the wellbeing of all citizens. European standards are driven by business and made through a transparent, balanced and consensus-based process in which all relevant stakeholders are involved. For that reason EUROBAT requests the deletion of Article 16 from the draft regulation.