
EUROBAT Position on the scope of the proposal on Sustainable Batteries

EUROBAT wants to remind that the focus of proposal on Sustainable Batteries should be limited to lithium-based rechargeable batteries for e-mobility only, at least in a first stage, as already highlighted in the [EUROBAT Manifesto 2019-2024](#).

EUROBAT opposes the scope extension to stationary energy storage systems (ESS), which would then need to include others battery technologies. We are therefore particularly worried by the proposals included in Work Package 2 of the Study on eco-design proposal on batteries¹, and we suggest the European Commission to not take it into account in view of the legislative proposals, also because of the long list of serious technical misconceptions included in the various studies².

Hereunder the main reasons which explains our position:

- The proposed applications under ESS (primary focus are titled 'residential' and 'large' storage) are too generic and cover factually a very wide range of applications (peak-shaving, frequency regulation, PV time-shift service, UPS/EPS...) having very different duty cycles from seconds to hours/days.
- More specifically, for large storage systems (MW / MWh) in many ESS applications, the battery acts as bi-directional energy buffer experiencing shallow cycles with depth of discharge of 5 to 30%, which is very different from typical deep-cycle ESS applications (ex. Peak-power shaving, PV time-shift service). Therefore, setting minimum requirements standards for batteries serving such a variety of applications does not seem appropriate.
- The e-mobility EV/pHEV application is built on lithium-based rechargeable batteries and it is therefore easier to develop coherent sustainability criteria. ESS is a much more complex situation, covering a wide variety of applications and battery technologies, and therefore including ESS would slow down the process of adoption which is urgently needed for e-mobility.
- Performances across different battery technologies can only be compared when the standard used allow for meaningful comparison (same testing protocols, cycles, cycling profiles, etc.). Table 2-2 included in Task 2 does not meet this expectation.

Task 2 – Characterisation of performance and sustainability requirements for rechargeable batteries with internal storage for chemistries other than lithium-ion for both electro-mobility and stationary applications, https://ecodesignbatteries.eu/sites/ecodesignbatteries.eu/files/attachments/EDBatteryfollowupstudyWP2_discussionnote_20191021f.pdf

² For instance, Task 2 reports that 'Advanced lead' would have a lower cycle life (2400) than standard lead-acid (3000)

- PEFCR is available only for lithium-based batteries in mobility applications. It is not available for other battery technologies, or for other applications such as energy storage. The adaption of PEFCR for other technologies by using correction factors and unclear formulas is not appropriate. Nevertheless, EUROBAT would support the development of a 'simplified' carbon footprint for non-lithium rechargeable batteries to be transparent on materials, energy-use, energy efficiency and recycling in the frame of a circular economy to be beneficial to the EUs independency. However, the development of such PEFCR would slow down the entire process and we therefore recommend to focus on lithium technologies for e-mobility, at least for the time being.
- The battery industry already took the initiative to sort battery technologies to improve recycling through the development of a colour code standard on chemistries (IEC 62 902 standard). This is a necessary first step and leave us the time to discuss further on the methodology for developing a PEFCR for other battery technologies (potentially related to g/CO₂ eg/kwh and use-phase to exclude). The standardized calculations from the already existing PEF on Lithium batteries (or the PEF for UPS which was discontinued) might be a basis to start the exercise and should be further investigated.

To conclude, we believe that the battery energy storage sector will be increasingly important to decarbonise our energy system, allowing storage of renewable energy and offering important ancillary services to stabilise the grid. We fully understand the need to ensure that batteries used for this services are manufactured, used and recycled in a sustainable way, and we do not oppose the development of criteria to address this issue. But we cannot accept to simply apply to these batteries criteria developed for a completely different application, above all when developed in such simplistic way. To develop such criteria, we expect the Commission to launch comprehensive studies on the different services offered by batteries in the energy storage sector, also developing dedicated PEFCR for the different applications. For opportunity reasons, we believe that this cannot be done in the framework of the current proposal on lithium batteries for mobility applications.