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EUROBAT position on provisions of data resulting from battery uses under Regulation (EU) 2023/1542

EUROBAT recommendation

The EU Batteries Regulation (Regulation (EU) 2023/1542) adopts a **technology-open approach**, considering the specific characteristics of different battery chemistries. Industrial batteries based on those chemistries that **do not require a BMS** (e.g. lead-based or nickel-cadmium) are therefore **exempt** from the obligation to update data resulting from battery use. EUROBAT notes that the obligation to keep this information up to date does not require continuous, frequent or real-time data transmission. Rather, our understanding is that updates are needed **when there is a change in status of a battery** affecting the information specified in Annex XIII. These data are those resulting from the different battery uses that vary over time and require regular - but not live or frequent- monitoring (e.g., state of charge).

EUROBAT, the Association of European Automotive and Industrial Battery Manufacturers, welcomes the provisions under the Batteries Regulation (Regulation (EU) 2023/1542) to establish a comprehensive framework for the safety, sustainability, and transparency of batteries placed on the European market. Among the provisions, the Batteries Regulation introduces the concept of a digital battery passport containing both static and dynamic data on a battery's characteristics and performance. However, not all battery chemistries or applications inherently require electronic monitoring systems to generate such data.

Certain types of industrial batteries (based on their chemistry, e.g. lead-based (Pb) or nickel-cadmium (NiCd) batteries are inherently **not equipped with a Battery Management System (BMS)**. Those types of batteries are **not required** to update data resulting from battery use in the battery passport under the Batteries Regulation 2023/1542 when used.

The following sections explain this position in more details.

I. No explicit BMS obligation in the Batteries Regulation

The EU Batteries Regulation contains **no explicit requirement** that all battery systems must be equipped with a BMS. The Regulation is **technology-neutral** and differentiates between battery categories and their specific technical requirements. This is clearly reflected in the definition of a BMS:

Batteries Regulation Article 3(1)25 (excerpt): Definition of BMS

The Regulation's Article 3(1) 25 states: *"A battery management system means an electronic device that controls or manages the electrical and thermal functions of a battery in order to ensure the battery's safety, performance and service life, ..."*





This definition implies that a BMS is only necessary for batteries where active electronic monitoring and control are **technologically or safety-wise required**. Pb and NiCd batteries, due to their **robust and proven design**, can be operated safely and reliably **without complex electronic monitoring systems**.

II. Batteries Regulation Article 14: Differentiated requirements by battery type

Article 14 of the Regulation governs the *“Information on the state of health and expected lifetime of batteries.”*

It explicitly applies to:

- Stationary battery energy storage systems
- Light means of transport (LMT) batteries
- Electric vehicle (EV) batteries

Article 14(1) states:

“From 18 August 2024, the battery management systems of stationary battery energy storage systems, LMT batteries and EV batteries shall include up-to-date data on the parameters determining the state of health and expected lifetime of the battery, in accordance with Annex VII.”

This requirement **presupposes that a BMS already exists**. It does not introduce a general obligation to install a BMS; it merely specifies data obligations **for batteries that already have one** in the context of the application.

III. Batteries Regulation Article 77 and its Annex XIII: Battery Passport

Article 77 and Annex XIII set out the information requirements for the Battery Passport. Sub-paragraph 4(d) of Annex XIII provides that the passport must include:

(d) information and data resulting from its use, including the number of charging and discharging cycles and negative events, such as accidents, as well as periodically recorded information on the operating environmental conditions, including temperature, and on the state of charge.

EUROBAT notes that the obligation to keep this information up to date does not require continuous, frequent or real-time data transmission. Rather, our understanding is that updates are needed **when there is a change in status of a battery** affecting the information specified in Annex XIII. These data are those resulting from the different battery uses that vary over time and require regular - but not live - monitoring (e.g., state of charge).

Batteries that **technologically do not require a BMS** (as explained above) **cannot generate** data resulting from battery use in a technical sense.





The Regulation implicitly acknowledges this reality by **not imposing a general BMS requirement** across all battery categories.

IV. Environmental and sustainability aspects

The Batteries Regulation aims to promote a **sustainable circular economy**. Forcing mature battery technologies to integrate unnecessary electronic components would be **counterproductive and environmentally detrimental**:

- **Resource efficiency:** Pb and NiCd batteries that already operate safely and efficiently without a BMS would become unnecessarily complex, costly, and resource-intensive if BMS integration were mandated.

Other batteries including a BMS have existing interfaces to share data from its use with the application they serve. A mandatory continuous, frequent or real time transmission to the battery passport would require additional connectivity, increasing cost, energy consumption and vulnerability.

- **Technological diversity:** The Batteries Regulation seeks to foster safety and sustainability, not to hinder existing, proven, and functional technologies.
- **Proven reliability:** Lead-acid and NiCd batteries have demonstrated reliability for decades in all applications (from stationary over traction to auxiliary and many other applications). Forcing BMS integration would make these technologies needlessly complex and **less environmentally friendly**.

V. Principle of proportionality

The Batteries Regulation follows the **principle of proportionality**. Battery technologies that do not inherently require continuous electronic monitoring should not be subject to disproportionate technical obligations.

For Pb and NiCd batteries, key parameters such as voltage, current, temperature, and electrolyte density can be monitored by **simpler, non-electronic means**, without the need for a BMS.

In conclusion, taking into account the above considerations, it is clear that the Batteries Regulation adopts a **technology-open approach**, considering the specific characteristics of different battery chemistries.

Industrial batteries based on those chemistries that **do not require a BMS** (e.g. lead-based or nickel-cadmium) are therefore **exempt** from the obligation to provide data resulting from battery use.



About EUROBAT

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EUROBAT is the leading association for European automotive and industrial battery manufacturers, covering all battery technologies, and has more than 40 members. The members and staff work with all policymakers, industry stakeholders, NGOs and media to highlight the important role batteries play for decarbonised mobility and energy systems as well as numerous other applications.

