European Association for Storage of Energy

Batteries Regulation Briefing

For EASE Members' Internal Use

Brussels, August 2023

Batteries Regulation Briefing

Preface

This briefing focuses on the Batteries Regulation with a Date of Entry into force of 17 August 2023. It is divided into the following chapters:

- Chapter 1 provides an overview of the Batteries Regulation
- Chapter 2 proposes a guide to the Regulation, highlighting the key provisions per battery topic
- Chapter 3 investigates specific battery topics and provisions
- The Annexes present upcoming Batteries Regulation-related secondary legislation, a brief F.A.Q., and other key policy and legislative actions

Contents

Chapter 1: Overview

1.1. Introduction

The European Commission is relying on a Regulation to legislate on batteries. Upon its entry into force on 17 August 2023, the Regulation replaced the previous Batteries Directive. While a Directive sets out a goal that all EU countries must achieve and lets them devise their own law, a Regulation is a binding legislative act - it must be directly applied in its entirety across the EU.

The decision of choosing a Regulation over a Directive aims to tackle some perceived failures/insufficient functioning of the EU internal market:

- Absence of a complete set of rules for batteries placed on the market
- Uneven implementation of obligations across EU Member States
- Existence of barriers to the functioning of recycling markets

Further details are in the following sections.

The Regulation contains a complete set of rules for batteries placed on the market and removes barriers to harmonised product requirements and the effective functioning of recycling markets. The centre of gravity is to be found in the internal market legal basis while achieving the environmental objective; other objectives are ancillary. The Batteries Regulation aims to:

- Harmonise product requirements for batteries
- Minimise the environmental impact of batteries
- "Close the loop" by encouraging reuse and improving batteries collection and recycling of materials
- Provide legal certainty to unlock investments and boost the production capacity for sustainable batteries in Europe and beyond

This will be achieved by a.o.:

- Sustainability and safety requirements for batteries
- Performance and durability requirements
- Labelling and information requirements, e.g. on hazardous materials
- End-of-life management – increased separate collection, recycling and materials recovery.

Please note: this briefing focuses on industrial batteries, stationary storage systems and EV batteries when relevant to Vehicle-to-Grid and Smart Charging.

1.2. The challenges

This Regulation addresses three groups of highly interlinked problems related to batteries.

- The first group relates to the lack of framework conditions providing incentives to invest in production capacity for sustainable batteries. These problems are linked to the single market's inefficient functioning and the lack of a sufficiently level playing field due to diverging regulatory frameworks within the internal market. The underlying causes of this include uneven implementation of the past legislation and the lack of reliable and comparable information across the EU

- The second group of problems relates to the sub-optimal functioning of recycling markets and insufficiently closed material loops, limiting the EU's potential to mitigate the supply risk for raw materials. There wee several shortcomings in the regulatory framework that included a lack of clear and sufficiently harmonised rules and provisions. For example, the Batteries Directive did not take into account recent technological and market developments. These shortcomings reduced the profitability of recycling activities and held back investment in new technologies and additional capacity to recycle the future batteries

- The third group of problems relates to social and environmental risks were not covered by EU environmental law. These problems include: (i) a lack of transparency on sourcing raw materials; (ii) hazardous substances; and (iii) the untapped potential for offsetting the environmental impact of battery life cycles.

1.3. The Objectives

The Regulation's objectives are threefold:

1. Strengthening the functioning of the internal market (including products, processes, waste batteries and recycling rates), by ensuring a level-playing field through a common set of rules:

   a. Fostering the production and placing on the EU market of high-quality batteries
   b. Ensuring functioning markets for secondary raw materials and related industrial processes
   c. Promoting innovation and the development and take-up of EU technological expertise

2. Promoting a circular economy:

   a. Increasing resilience and closing the materials loop
   b. Reducing the EU's dependence on imports of strategic materials
   c. Ensuring appropriate collection and recycling of all waste batteries

3. Reducing environmental and social impacts throughout all stages of the battery life cycle. These three objectives are strongly interlinked:

   a. Contributing to responsible sourcing
   b. Using and sourcing resources, including raw and recycled materials, efficiently and responsibly
   c. Reducing GHG emissions across the entire battery life cycle
   d. Reducing risks to public health and environmental quality and improve the social conditions of local communities

Chapter 2: Connecting Topics to Provisions

2.1. The Beginners' Guide to Batteries Regulation Topics

The Regulation contains 14 Chapters, 96 Articles, and 15 Annexes. The following table lists the key provisions per topic.

Topic	Key provisions
1. Classifications and definitions	Article 3
2. Hazardous substances restrictions	Article 6, 86-88; Annex I
3. Carbon footprint for industrial and EV batteries	Article 7; Annex II
4. Performance and durability of batteries	Article 10; Annex IV
5. Recycled content in batteries	Article 8
6. End-of-life	
Register of producers	Article 55
Extended producer responsibility	Article 49, 56, 57-58
Collection of waste	Article 56, 61, 66-67, 69
Treatment and Recycling	Article 56, 70, 71-72, Annex XII
Information and reporting	Article 74-76
7. Repurposing and remanufacturing of batteries	Article 2, 14, 46-47, 73; Annex VIII
8. Digital Battery Passport	Article 77; Annex XIII
9. Battery Management Systems	Article 14, 38; Annex VII
10. Supply-chain due diligence schemes, responsible sourcing	Article 47, 48, 50-55, 69, 76; Annex X
11. Green public procurement	Article 85
12. Safety of battery storage systems	Article 4, 12, 59-60, 66-68; Annex V
13. Labelling	Article 4, 13, 18-20, 77; Annex VI
14. Conformity assessment	
Conformity assessment procedures	Article 6-10, 12-14, 15, 17-18; Annex VIII, IX
Conformity assessment bodies	Article 21-37

In green key provision(s) per topic.

2.2. How the Batteries Regulation will Change your Business: Provisions per Category of Economic Operator

Key provisions for manufacturers, i.e.: Any natural or legal person who manufactures a battery or has a battery designed or manufactured, and markets that battery under its name or trademark	
Key provisions for all suppliers of battery cells and battery modules	Article 6-17, 20, 38, 40, 46-47, 59-61
Key provisions for importers, i.e.: Any natural or legal person established within the Union who places a battery from a third country on the Union market	Article 6-14, 17, 19, 38, 41, 44, 46-47, Annex VIII
Key provisions for distributors, i.e.: Any natural or legal person in the supply chain, other than the manufacturer or the importer, who makes a battery available on the market	Article 6-10, 12-14, 19, 38, 41, 42, 44, 45, 46, 47, 49, 50, 56, 60
Key provisions for service providers, i.e.: Any natural or legal person offering, in the course of commercial activity, at least two of the following services: warehousing, packaging, addressing and dispatching, without having ownership of the products involved, excluding postal services	Article 6-14, 40, 43
Key provisions for producers, i.e.: Any manufacturer, importer or distributor who, irrespective of the selling technique used, including by means of distance contracts as defined in Article 2(7) of Directive 2011/83/EU, supplies a battery for the first time for distribution or use	Article 46, 47, 49, 51-54, 56, 60, 61; see previous sections for specific provisions
Key provisions for end-users, i.e.: Definition not provided by the European Commission	Article 49, 51, 60

Key provisions for all economic operators, i.e.: Any manufacturer, authorised representative, importer, distributor or fulfillment service provider who is subject to obligations concerning manufacturing batteries, making them available or placing them on the market or putting them into service under the present Regulation Key provisions for economic operators that is placing on the market batteries that have been subject to preparing for re-use, preparing for repurpose, repurposing or remanufacturing	Article 2-5, 45, 46-47, 49, 65-66, 73, 74; Annex X
Key provisions for treatment facilities, i.e.: Facility for sorting, preparing for re-use, preparing for repurpose, preparation for recycling, or recycling	Article 47, 52, 56, 57; Annex XII

In green key provision(s) per topic

Other economic operators are identified in the Regulation, namely "independent operator", "subsidiary", "parent company", "waste management operator" and "recycler". "Independent aggregator" and "market participant" are present in the text using definition from the Electricity market Design Directive (Regulation EU 2019/943).

Non-economic actors are also identified: "national accreditation body", "conformity assessment body", "notified body", "authorised representative of the EPR", "authorised representative", "producer responsibility organisation" and "national authority".

Chapter 3: Key Battery Topics

Please note: the paragraphs "Current legislation" are present to better show the novelties introduced with the new Batteries Regulation. They are not full, in-depth analyses of the current legislative framework.

3.1. Classifications and Definitions

Previous Legislation
The 2006 Batteries Directive relied on a categorisation focused on three types of batteries based on use:

- Portable
- Automotive
- Industrial

With the new Regulation
At the "macro" level, the Batteries Regulation distinguishes between:

- "non-rechargeable battery"
  - Not designed to be electrically recharged
- "rechargeable battery"
  - Designed to be electrically recharged.

Provisions in the text are specifically tailored to five types of batteries:

Portable battery	◦ Sealed ◦ Weighs below or equal to 5 kg ◦ Not designed specifically for industrial uses, and it is not an EV, LMT, SLI battery
Industrial battery	◦ Designed specifically for industrial use ◦ Any other battery above 5 kg that is not an LMT, EV, SLI battery
Starter, lighting or ignition power (SLI)	◦ Designed to supply electric power for starter, lighting, or ignition and may also be used for auxiliary or backup purposes in vehicles, other means of transport or machinery
Light means of transport (LMT)	◦ Battery below or equal to 25 kg designed to provide electric power for the traction of wheeled vehicles [definition continues]
Electric vehicle battery	◦ Designed to provide electric power for the traction to hybrid or electric vehicles

Yet, on top of these 5 definitions, additional categories are defined:

Battery with external storage	Stationary battery energy storage system	Energy storage
Designed to have the energy stored exclusively in one or more attached external devices	Industrial battery with internal storage specifically designed to store and deliver electric energy from and into the grid or store and deliver electric energy to end-user	As defined in Article 2 of Directive (EU) 2019/944 shall apply

Finally, regarding the unit of analysis the Regulation distinguishes between:

- Battery pack
- Battery module
- Battery cell

Why it is important
A categorisation with EV and industrial batteries allows e.g. more precise carbon footprint calculation as different use cases are taken into account.

Batteries for energy storage systems fall under the definition of industrial battery. This is less than ideal as industrial battery is a catch-all definition for all those batteries that are not LMT, SLI, EV, or portable. To some extent, this is countered by the existence of a specific definition of stationary battery energy storage system and energy storage itself. The stationary energy storage system covers both behind-the-meter and front-of-the-meter solutions, contrary to the original 2020 Commission Proposal.

One significant exception is flow batteries: they fall under the definition of battery with external storage.

Not to overlook
Weight limit of 5 kg to differentiate portable from industrial batteries.

Check: Article 3

3.2. Hazardous Substances Restrictions

Previous legislation
The 2006 Batteries Directive already contained restrictions on the substances used in batteries and accumulators. It aimed to reduce e.g. mercury and cadmium in batteries, but this according to the Commission has not led to a substantial reduction in other hazardous substances. Directive 2000/53/EC on "End-of-Life Vehicles" overlapped with the 2006 Batteries Directive, but the latter must be applied "without prejudice". The REACH and CLP Regulation also (still) contain relevant provisions. Non-legislative documents are also present such as the 2021 Zero Pollution Action Plan.

With the new Regulation
The use of hazardous substances in batteries should be restricted at source in order to protect human health and the environment and to manage the presence of such substances in waste.
"Hazardous substance" means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in Parts 2 to 5 of Annex I of Regulation (EC) No 1272/2008.

Industrial batteries shall not contain hazardous substances as per Annex I.

- The regulation maintains the existing restrictions on mercury and cadmium.
- The regulation specifies which substances could be considered hazardous, based on CLP

The Commission proposes a new mechanism for introducing new restrictions building on the experience gained in the implementation of REACH.

Why it is important
New restrictions on new hazardous substances and new mechanisms for substance assessments are foreseen.

Not to overlook
The REACH and CLP Regulation also contain provisions relevant to hazardous substances. Non-legislative documents are also present such as the 2021 Zero Pollution Action Plan.
The table below lists future reports and potential delegated acts stemming from the Regulation in regard to hazardous materials and substances:

By this date	The Commission shall…
31 December 2027	assisted by the European Chemicals Agency, prepare a report on substances of concern, meaning substances having an adverse effects on human health or the environment or hampering recycling for safe and high quality secondary raw materials, contained in batteries or used in their manufacturing
No date	submit the report to the European Parliament and the Council detailing its findings on substances of concern and will consider the appropriate follow-up measures including the adoption of the delegated acts
No date	in case of an unacceptable risk to human health or the environment, arising from the use of a substance in the manufacture of batteries, or from the presence of a substance in the batteries adopt a delegated act to amend the restrictions of substances

- With the Regulation, the assessment will now be carried out by ECHA – the European Chemical Agency.
- The restriction dossier, as outlined in Annex XV to Regulation (EC) No 1907/2006, has been put in place as a risk management mechanism. In a case a Member State considers a substance, found at any point of battery life, can potentially pose a risk to human health and/or the environment, it shall notify the European Chemicals Agency and provide a restriction dossier.
- The Commission is empowered to propose amendments and introduce an export ban on batteries not compliant with the previously mentioned restrictions.

Check: Article 6, 86 - 88, ; Annex I

3.3. Carbon Footprint for Industrial and EV Batteries

Previous Legislation

The 2006 Batteries Directives did not foresee such a provision

With the new Regulation

The Regulation foresees a staged approach:

- Information requirement in the form of a carbon footprint declaration
- Classification into carbon footprint performance classes
- (Eventually) mandatory thresholds to access the Union market, i.e. batteries will need to comply with the maximum life-cycle carbon footprint threshold.

The obligation to report the carbon footprint associated with the overall life-cycle (excluding the use phase) of batteries placed on the market requires developing an IT tool that allows manufacturers to directly enter the information. The Commission intends to offer a web-based tool and free access to the libraries of secondary datasets to facilitate the process of calculating the carbon footprint, based on the adopted rules. The data

submitted could be used to set benchmarks of GHG emissions, assess whether bringing in classes of GHG intensity performance would be useful to improve the carbon footprint and environmental performance of batteries, and assess the need for additional incentives and/or market conditionality measures. Until it becomes accessible via the QR code, the carbon footprint declaration shall accompany the battery in physical form.

The following table presents the timeline for the carbon footprint declaration introduction:

From this date...	...Or (whichever is the latest)	Carbon footprint declaration shall apply for
18 February 2025	12 months after entry into force either of the delegated act or of the implementing act	Electric vehicle batteries
18 February 2026	18 months after entry into force either of the delegated act or of the implementing act	Rechargeable industrial batteries except those with exclusively external storage
18 August 2028	18 months after entry into force either of the delegated act or of the implementing act	LMT batteries
18 August 2030	18 months after entry into force either of the delegated act or of the implementing act	Rechargeable industrial batteries with external storage

The following table present the timeline for the carbon footprint performance classes introduction:

From this date...	...Or (whichever is the latest)	Carbon footprint performance class requirements shall apply for
18 August 2026	18 months after entry into force either of the delegated act or of the implementing act	Electric vehicles batteries
18 August 2027	18 months after entry into force either of the delegated act or of the implementing act	Rechargeable industrial batteries except those with exclusively external storage
18 February 2030	18 months after entry into force either of the delegated act or of the implementing act	LMT batteries
18 February 2032	18 months after entry into force either of the delegated act or of the implementing act	Rechargeable industrial batteries with external storage

Every three years, the Commission will review the number of performance classes and the thresholds between them, and amend them if necessary.

The introduction of a maximum life cycle carbon footprint threshold may trigger a reclassification of the carbon footprint performance classes. By December 31, 2030, the Commission will assess the feasibility of extending these requirements to rechargeable industrial batteries with nominal energy below 2kWh.

Why it is important

This regulation introduces progressive requirements to minimise the carbon footprint over the life cycle of batteries.

Not to overlook

The following table lists the delegated acts for establishing the carbon footprint calculation:

By this date	The Commission will adopt a delegated act for establishing a methodology for the calculation and verification of the carbon footprint, and its implementing act for
18 February 2024	Electric vehicles batteries
18 February 2025	Rechargeable industrial batteries, except those with external storage
18 February 2027	LMT batteries
18 February 2029	Industrial batteries with external storage

The following table lists the delegated acts for establishing the carbon footprint performance classes:

By this date	The Commission will adopt a delegated act for establishing carbon footprint performance classes, and its implementing act establishing the formats of the labelling for
18 February 2025	Electric vehicles batteries
18 August 2026	Rechargeable industrial batteries except those with exclusively external storage
18 August 2028	LMT batteries
18 August 2030	Rechargeable industrial batteries with external storage

The following table lists the delegated acts for determining maximum life cycle carbon footprint threshold:

From this date...	...Or (whichever is the latest)	Requirement for a maximum life cycle carbon footprint threshold shall apply as of
18 February 2028	18 months after entry into force either of the delegated act or of the implementing act	Electric vehicles batteries
18 February 2029	18 months after entry into force either of the delegated act or of the implementing act	Rechargeable industrial batteries except those with exclusively external storage
18 August 2031	18 months after entry into force either of the delegated act or of the implementing act	LMT batteries
18 August 2033	18 months after entry into force either of the delegated act or of the implementing	Rechargeable industrial batteries with external storage

The following table lists the delegated acts for determining the maximum life cycle carbon footprint threshold:

By this date	The Commission will adopt a delegated act to determine the maximum life cycle carbon footprint threshold for
18 August 2026	Electric vehicles batteries
18 February 2028	Rechargeable industrial batteries except those with exclusively external storage
18 February 2030	LMT batteries
18 February 2032	Rechargeable industrial batteries with external storage

The requirements presented in tables shall not apply to a battery that has been subject to preparing for re-use, preparing for repurpose or repurposing, or remanufacturing, if the battery had already been placed on the market or put into service before undergoing such operations.

Check: Article 7; Annex II

3.4. Performance and Durability of Batteries

Previous legislation

As per the 2006 Batteries Directive, Member States which have manufacturers established on their territory shall promote research and encourage improvements in the overall environmental performance of batteries and accumulators throughout their entire life cycle as well as the development and marketing of batteries and accumulators which contain smaller quantities of dangerous substances or which contain less polluting substances, in particular as substitutes for mercury, cadmium, and lead.

With the new Regulation

The Regulation lays down an information requirement on the electrochemical performance and durability parameters for LMT batteries, rechargeable industrial batteries, and electric vehicle batteries. At least elements laid down in Part B of Annex IV of the Regulation should be provided.

The following table presents the legal requirements economic operators will have to meet:

From this date...	...Or (whichever is the latest)	Economic operators must ensure that
18 August 2024	/	ensure that LMT batteries, rechargeable industrial batteries with a capacity above 2 kWh, and electric vehicle batteries are accompanied by a document containing values for the electrochemical performance and durability parameters
18 August 2027	18 months after entry into force	Rechargeable industrial batteries with a capacity above 2 kWh, except those with exclusively external storage, meet the minimum values for the electrochemical performance and durability parameters
18 August 2028	18 months after entry into force either of the delegated act or of the implementing act	LMT batteries meet the minimum values laid down in the delegated act adopted by the Commission

The requirements above do not apply to batteries that have been subjected to re-use, preparing for repurpose or repurposing, or remanufacturing, or where an economic operator proves that the battery ongoing such procedures has been placed on the market before the dates on which those obligations become applicable.

Why is it important
The Regulation introduces information requirements on performance and durability requirements.

Not to overlook
/

The following table lists the delegated act the Commission will introduce on the topic of performance and durability:

By this date	The Commission will introduce a delegated act to
18 February 2026	Establish minimum values for the electrochemical performance and durability parameters for rechargeable industrial batteries with a capacity above 2kWh, except those with exclusively external storage
18 February 2027	Establish minimum values for the electrochemical performance and durability parameters that LMT batteries shall attain
No date	Amend the electrochemical performance and durability parameters in view of market development and technical and scientific progress, including in particular related to technical specifications of the informal UNECE Working Group on Electric Vehicles and the Environment.

EV batteries will be covered by in-vehicle durability requirements in a Global Technical Regulation being developed under the UNECE EWG.
If necessary, the Commission will adopt delegated acts to amend electrochemical performance and durability parameters, as noted in Annex IV, coherent with the work of the UNECE WG on Electric Vehicles and the Environment.

Check: Article 10; Annex IV

3.5. Recycled Content in Industrial, EV and Automotive Batteries

Previous legislation
The topic of recycled content was not fully addressed in existing legislation, although it is discussed in the context of the Circular Economy Action Plan.

With the new Regulation

The Regulation foresees the rollout of recycled content provision through three steps:

1. Establish a methodology for calculation
2. Require the technical documentation that includes minimum shares of recycled content information
3. (Eventually) mandatory minimum levels to access the Union market

Importantly, batteries with exclusively external storage will not be subject to recycled content obligations. Predictably, the same applies to repurposed or remanufactured batteries, or batteries that had already been placed on the market or put in service before undergoing such operations.

The following table lists requirements the Commission will introduce on the topic of mandatory minimum levels of recycled content:

From this date...	...Or (whichever is the latest)	Economic operators must...
18 August 2028	24 months after entry into force either of the delegated act or of the implementing act	ensure that industrial batteries, with a capacity above 2 kWh, except those with exclusively external storage, electric vehicle batteries, and SLI batteries that contain cobalt, lead, lithium, or nickel in active materials, are accompanied by: • documentation containing information about the share of, respectively, cobalt, lithium, or nickel recovered from battery manufacturing waste or post-consumer waste present in active materials, and the share of lead recovered from the waste present in the battery, for each battery model per year and per manufacturing plant
18 August 2031		demonstrate that industrial batteries with a capacity above 2 kWh, except those with exclusively external storage, electric vehicle and SLI batteries that contain cobalt, lead, lithium, or nickel in active materials contain minimum: • 16% share of cobalt • 6% lithium or • 6% nickel recovered from battery manufacturing waste or post-consumer waste present in active materials, and • 85% share of the lead

		recovered from the waste present in the battery, for each battery model per year and per manufacturing plant
18 August 2036		demonstrate that industrial batteries with a capacity above 2 kWh, except those with exclusively external storage, electric vehicle and SLI batteries that contain cobalt, lead, lithium, or nickel in active materials contain minimum: • 26% share of cobalt, • 12% lithium or • 15% nickel recovered from battery manufacturing waste or post-consumer waste present in active materials, and • 85% share of the lead recovered from the waste present in the battery, for each battery model per year and per manufacturing plant

By 31st December 2028, the Commission will assess if it is necessary to revise the targets in the table above.

Why it is important

Such provision can improve the efficient use of raw and recycled materials. The Commission believes providing a predictable legal framework would encourage market players to invest in recycling technologies.

Not to overlook

Battery manufacturing waste should be included in the recycled content targets. On the other hand, materials that can be reclaimed within the same process that generated them should be excluded from these targets.

The following table lists delegated acts the Commission will introduce on the topic of recycled content:

By this date	The Commission will...
18 August 2026	establish the methodology for calculation and verification of the share of cobalt, lithium, or nickel recovered from waste present in active materials, the share of lead recovered from battery manufacturing waste, or post-consumer waste present in the battery

No date	adopt delegated acts to amend this Regulation by inserting other materials than cobalt, lead, lithium, and nickel, with specific minimum shares of recycled content per specific material

Check: Article 8

3.6. End-of-Life

3.6.1 Register of Producers

Previous legislation

The 2006 Batteries Directive introduced the "producer responsibility principle". Member States must ensure that each producer is registered.

With the new Regulation

The Regulation aims to set up a register to monitor producers' compliance with the requirements for end-of-life management of batteries. The Register shall be managed by the competent authority in the Member States.

Why it is important

Producers are obliged to register when first making available batteries in an EU Member State market.

Not to overlook

The Regulation defines the information that will be needed in the application process for the Register of producers, and how the producer meets its responsibilities for different types of batteries (LMT and SLI). However, Member States may request additional information if necessary.

Producers - or producer responsibility organisations – must notify the competent authority of:

- Any changes to the information contained in the registration
- Any permanent cessation as regards the making available on the market within the territory of the Member State

The table below lists the obligations and the dates for provisions from Directive 2006/66/EC that will remain in place even after the introduction of the Regulation:

Until this date	The following Directive 2006/66/EC provisions will apply
30 June 2025	obligations for the transmission of data to the Commission
31 December 2025	obligations related to monitoring and reporting the recycling efficiencies of recycling processes
30 June 2027	obligations for the transmission of data to the Commission

Check: Article 55

3.6.2 Extended Producer Responsibility

Previous legislation

In the 2006 Batteries Directive, producer responsibility was discussed. Battery producers, or third parties acting on their behalf, were obliged to finance the net cost of collecting, treating, and recycling collected waste batteries. Similar provisions are present in Directive 2000/53/EC on "End-of-life vehicles".

With the new Regulation

In the Regulation, producers of batteries shall have extended producer responsibility for batteries that they make available on the market for the first time within the territory of a Member State, to ensure the attainment of the waste management obligations. The same applies to batteries that result from preparing for reuse, preparing for repurposing, repurposing, or remanufacturing.

Producers must bear the cost of the following:

- separate collection of waste batteries and the subsequent transport, treatment, and recycling of waste batteries taking into account any revenues from preparing for re-use or preparing for repurposing or from the value of secondary raw material from recycled waste batteries
- carrying out surveys of collected mixed municipal waste
- information on prevention and management of waste in batteries
- data gathering and reporting to competent authorities

For batteries that have been subject to preparing for re-use or repurpose, repurposing or remanufacturing, and have been made available on the market, the producer of the original battery and the succeeding one can establish and adjust a cost-sharing mechanism based on the actual attribution of the costs between them. In the case that a battery is subject to more than one extended producer responsibility, the first producer shall not bear any additional costs.

Producers can act alone or collectively in a producer responsibility organisation at the national level.

Why it is important

The provisions entail requirements for producers of batteries to ensure the attainment of the waste management obligations.

Not to overlook

Producer responsibility organisations must apply for authorisation from the competent authority. The authorisation shall be granted where it is demonstrated that the measures put in place by the producer responsibility organisation are sufficient to meet their obligations. In certain cases, entrustment of producer responsibility organisation might be made mandatory by a Member State.

Check: Article 49, 56, 57-58

3.6.3 Collection of Waste

Previous legislation

The 2006 Batteries Directive made it compulsory to collect and recycle batteries and accumulators - to prevent these items from being incinerated or dumped in landfills. It also laid down minimum rules for operating national collection schemes. Different requirements for different types of batteries were present. In general, battery producers, or third parties acting on their behalf, were obliged to finance the net cost of collecting waste batteries. Directive 2000/53/EC on "End-of-life vehicles" also presents collection schemes, but they apply only to batteries and accumulators that are collected together when the vehicle is scrapped.

With the new Regulation

In the Regulation, producers/producer responsibility organisations have to organise the collection of all waste batteries. They must:

- Take back, free of charge and without an obligation on the end-user to buy a new battery, nor to have purchased the battery from them, all automotive waste batteries, industrial batteries, and electric vehicle batteries of the respective type that they have made available on the market for the first time in the territory of that Member State. The take-back arrangements shall cover the whole territory of a Member State.
- To set up a network of accessible collection points in cooperation with other operators: distributors, waste electrical and electronic equipment and end-of-life vehicle treatment and recycling facilities, public authorities, or third parties carrying out waste management.
- Where industrial waste batteries require prior dismantling at the premises of private, non-commercial users, the producer's obligation to take back those batteries shall include covering the costs of dismantling and collecting.
- If waste management operations take place in a Member State that is different from the one in which a battery was available on the market for the first time, producers should cover the costs of waste management operations in the Member State in which these actions are taking place

Why it is important

Producers have significant responsibilities regarding waste collection, including hazardous waste.

Not to overlook

The Batteries Regulation invites legislators to amend Directive 2008/98/EC to reflect the specific nature of battery waste.

Producers/producer responsibility organisations handing over collected waste automotive batteries, industrial batteries, and electric vehicle batteries to authorised waste management operators for treatment and recycling may consider their obligations to be met.

Check: Article 56, 61, 66-67, 69

3.6.4 Treatment and Recycling

Previous legislation

The 2006 Batteries Directive stated that all batteries collected should be recycled. It also presented recycling efficiency targets and laid down minimum rules for operating national recycling schemes. The Directive specified recycling efficiency levels, supported by Commission Regulation 493/2012. The Directive specified how waste batteries are to be treated. In general, battery producers, or third parties acting on their behalf, were obliged to finance the net cost of treating and recycling collected waste batteries.

With the new Regulation

The Regulation introduces requirements to be met by treatment facilities for all collected waste batteries to undergo proper treatment and recycling. Collected waste batteries shall not be disposed of or be the subject of an energy recovery operation. Where treatment installations and processes are covered by Directive 2010/75/EU on industrial emissions, such a Directive will apply.

The table below lists minimum recycling efficiencies targets as found in Annex XII, Part B of the Regulation:

By this date	Minimum recycling efficiencies targets must be
31 December 2025	• Recycling of 75 % by the average weight of lead-acid batteries; • Recycling of 65 % by the average weight of lithium-based batteries; • Recycling of 80 % by the average weight of nickel-cadmium batteries; • Recycling of 50 % by the average weight of other waste batteries.
31 December 2030	• Recycling of 80 % by average weight of lead-acid batteries; • Recycling of 70 % by average weight of lithium-based batteries.

The table below lists minimum levels of recovered materials:

By this date	Minimum levels of recovered materials must be
31 December 2027	• 90 % for cobalt • 90 % for copper • 90 % for lead • 50 % for lithium • 90 % for nickel
31 December 2031	• 95 % for cobalt • 95 % for copper • 95 % for lead • 80 % for lithium • 95 % for nickel

Why it is important

New key requirements are being set – all waste batteries collected shall enter a recycling operation.

Not to overlook

The table below lists delegated acts the Commission will introduce on the topic of calculation and verification of recycling efficiencies and recovery materials:

By this date	The Commission will
18 February 2025	Establish the methodology for calculation and verification of recycling efficiencies and recovery of material in accordance with essential elements set out in Annex XII of the Regulation

18 August 2026	Continue to monitor market developments and, if needed, revise recycling efficiencies and the recovery of materials
No date	Be empowered to adopt delegated acts to add further materials with specific levels of recovered material and battery chemistries with specific levels of minimum recycling efficiency
No date	adopt delegated acts to amend the treatment requirements for waste batteries in light of technical and scientific progress and emerging new technologies in waste management

Check: Article 56, 70, 71-72, Annex XII

3.6.5 Information and Reporting

Previous legislation

The 2006 Batteries Directive required EU Member States to ensure that consumers ("end-users") are informed of the substances used in batteries, the separation of waste/treatment; and told what the battery labels mean. Directive 2000/53/EC on "End-of-life vehicles" presents similar provisions.

With the new Regulation

Regarding end-users: in the Regulation, producers or producer responsibility organisation shall make available to end-users and distributors information regarding:

- Prevention and management of waste batteries
- Remanufacturing, preparing for reuse, treatment, and recycling activities

Regarding reporting to authorities: producers or producer responsibility organisations shall report to the competent authority for each calendar year the following information:

- The number of industrial batteries and electric vehicle batteries made available on the market for the first time in a Member State
- The amount of waste industrial batteries and electric vehicle batteries collected and delivered for treatment or recycling to permitted facilities
- The amount of waste industrial batteries and waste electric vehicle batteries collected and delivered to prepare for re-use or preparing for repurposing
- The amount of collected waste industrial batteries and electric vehicle batteries exported to third countries for treatment, preparation for reuse, preparation for repurposing or recycling

Additionally, where waste management operators collect, carry out treatment, or recycle waste batteries, they shall report information to the competent authority for each calendar year according to chemistries and categories of waste batteries – see Article 61 for further details. Member States shall make publicly available in an aggregated format for each calendar year the following data on portable batteries, LMT and SLI batteries, industrial batteries, and electric vehicle batteries according to battery types and their chemistries.

Not to overlook

The following table depicts the timeline through which continuity is ensured until new calculation rules and reporting formats are adopted:

Until	The Commission will
31 December 2025	Directive related to monitoring and reporting the recycling efficiencies of recycling processes should remain in force
30 June 2027	Related obligations for the transmission of data to the Commission should remain in force

Check: Article 74-76

3.7. Repurposing and Remanufacturing of Batteries

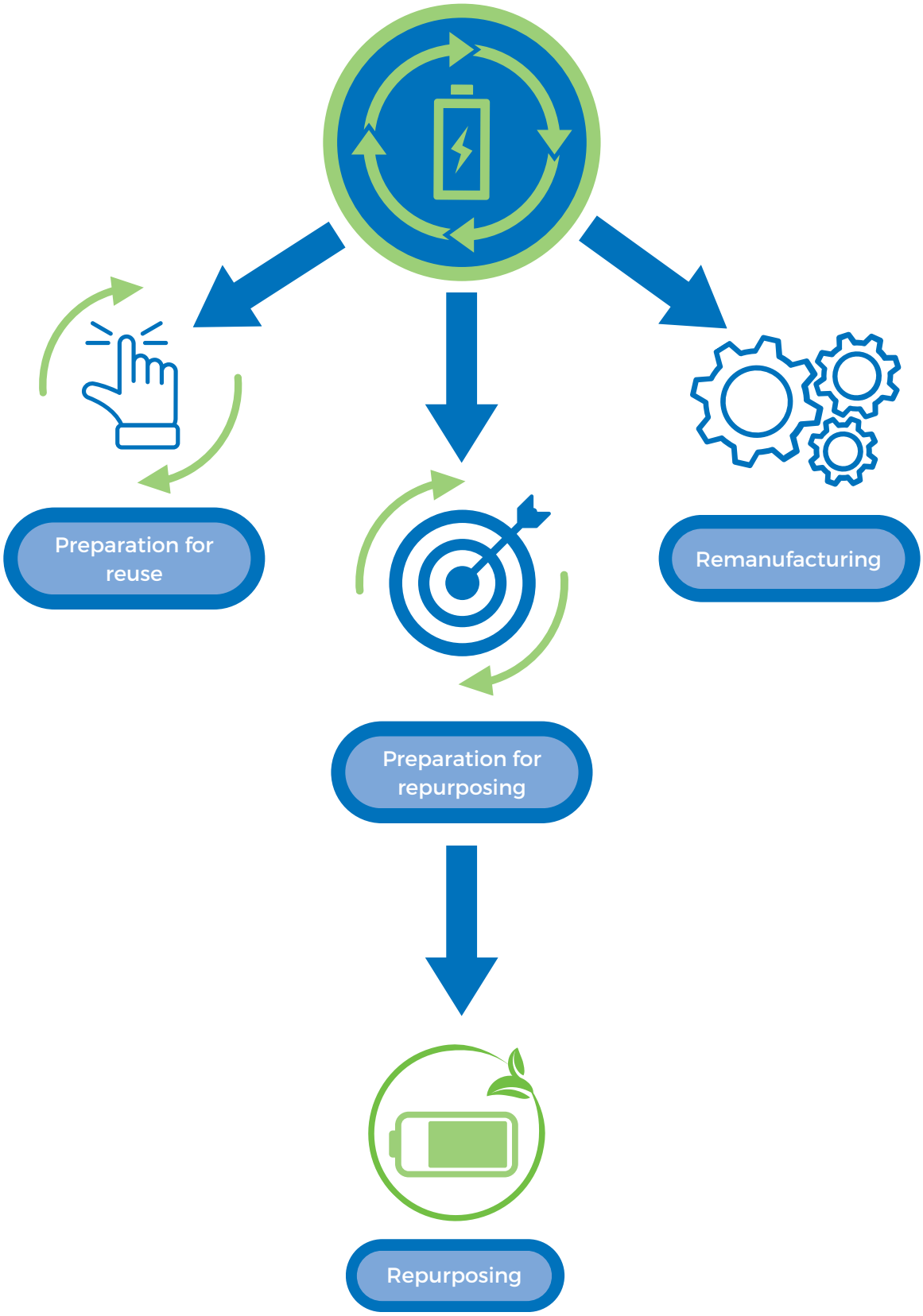
Previous legislation

Well-defined, specific legislation on this topic at the European Union level did not exist. The 2006 Batteries Directive, Directive 2000/53/EC on end-of-life vehicles, Directive 2008/98/EC on waste, and Directive 2012/19/EU on waste electrical and electronic equipment all contained references to repurposing/second-life batteries – often while relying on a variety of terminologies for the such concept.

With the new Regulation

The Regulation introduces several different terms to describe processes related to the second life of batteries. Definitions for "preparing for reuse" and "reuse" are laid down in Article 3 of Directive 2008/98/EC apply.

preparation for repurposing	any operation, by which a waste battery, or parts thereof, is prepared so that it can be used for a different purpose or application than that for which it was originally designed
repurposing	any operation that results in a battery, that is not a waste battery, or parts thereof being used for a purpose or application other than that for which the battery was originally designed
remanufacturing	any technical operation on a used battery that includes the disassembly and evaluation of all its battery cells and modules and the use of a certain number of battery cells and modules that are new, used or recovered from waste, or other battery components, to restore the battery capacity to at least 90 % of the original rated capacity, and where the state of health of all individual battery cells does not differ more than 3 % between cells, and results in the battery being used for the same purpose or application as the one for which the battery was originally designed
preparation for re-use	checking, cleaning, or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing


Preparation for reuse
Preparation for repurposing
Remanufacturing
Repurposing

Process	How is the battery considered after the process
Preparing for re-use	Considered to be placed on the market again and therefore should comply with the specific requirements and obligations. This also includes batteries originating from a third country
Preparing for repurpose	
Repurposing	
Remanufacturing	

Cost sharing mechanism:

End of first life	End of second life/third/etc. life
In case of making available batteries that have been subject to preparing for re-use, preparing for repurpose, repurposing or remanufacturing, both the producers of the original batteries and the producers of batteries that are placed on the market as a result of the abovementioned operations, may establish and adjust a cost sharing mechanism	The first producer making originally the battery available on the market shall not bear additional costs as a result of such mechanism. The economic operators involved in operations at the end of batteries' second life may also adopt a cost sharing mechanism following the same logic as in the left column.*

- A battery subject to preparing for re-use, preparing for repurpose, repurposing or remanufacturing should be covered by a sales contract that complies with the requirements of Directive (EU) 2019/771, when the end-user is a consumer. These requirements include conformity of the product, liability of the seller (including the option of a shorter liability or limitation period), burden of proof, remedies for lack of conformity, repair or replacement of the goods, and commercial guarantees and other.
- Evidence of state of health evaluation or testing
- Further use of the battery that has been subject to preparing for re-use, or preparing for repurpose, is documented
- Evidence of appropriate protection against damage (e.g. transportation)

Why it is important

Batteries subject to different processes will face dramatically different requirements.

Not to overlook

Requirements set out in this Regulation extend to the waste batteries exported from the Union for preparation for re-use, preparation for repurposing, or recycling.

The Commission will seek to encourage the development of standards for design and assembly techniques that facilitate the repair and repurpose of batteries.

Check: Article 2, 14, 46-47, 73, Annex VIII

3.8. Digital Battery Passport

Previous legislation

The 2006 Batteries Directive did not support the concept of a Digital Battery Passport. The previous Regulation set up a basis for Battery Passport through the concept of an Information Exchange System that has now been developed and shaped into a Digital Battery Passport.

With the new Regulation

The battery passport will be required for each industrial battery as it is set out in the table below:

From this date...	
18 February 2027	Each industrial battery with a capacity above 2 kWh and each electric vehicle battery placed on the market or put into service shall have an electronic record ("battery passport")

The battery passport shall contain information relating to the battery model and information specific to the individual battery including as a result of the use of that battery, as set out in Annex XIII. Battery passports should reflect the evolving technologies, be market-driven, and based on a decentralised data system.

Each battery passport should be accessible via the QR code that is linked to a unique identifier that the economic operator placing the battery on the market shall attribute to it. Data must be accurate, complete, and up to date. Technical design and operation requirements of the battery passport and its QR code are discussed in detail.

Different types of information will be provided to:

1. the general public
2. notified bodies, market surveillance authorities, and the Commission
3. any natural or legal person with a legitimate interest. Interested persons are eligible to access information if:
   - concern dismantling of the battery, including safety measures to be taken during the dismantling, and the detailed composition of the battery model and be essential to allow repairers, remanufacturers, second-life operators and recyclers to conduct their respective economic activities in accordance with this Regulation
   - in the case of individual batteries, be essential to the purchaser of the battery or parties acting on the purchaser's behalf, for the purpose of making the individual battery available to independent energy aggregators or energy market participants.

For detailed information available for each specific entity, please refer to Annex XIII of the Regulation.

The information on the passport will be able to be updated by the economic operator who placed it on the market and another authorised legal person. However, certain information that concerns sensitive commercial information shall remain confidential and unavailable to the public. This applies to dismantling information, including safety, and detailed composition essential for repairers, remanufacturers, second-life operators, and recyclers; and information concerning individual batteries.

In case of preparation to re-use, preparation for repurposing, repurposing, or remanufacturing, the obligation regarding the battery passport should be transferred to the new economic operator and a new battery passport should be created is linked to the original passport(s). Battery passports should cease to exist after the battery has been recycled.

Why is it important
The Regulation establishes of the battery passport, absent in previous legislation.

Not to overlook
The table below depicts the timeline for implementing and delegated acts that the Commission is expected to adopt:

By this date	The Commission will
By 18 August 2026	adopt implementing acts specifying information accessible only to any natural or legal person with a legitimate interest in accessing and processing additional information
No date	adopt delegated acts to change the information to be included in the battery passport in view of technical and scientific progress
No date	adopt delegated acts to amend in light of technical and scientific progress to replace/add standards with which the QR code and the unique identifier shall comply

Check: Article 77, Annex XIII

3.9. Battery Management Systems

Previous legislation
Legal provisions related to battery management systems were not present in the 2006 Battery Directive.

With the new Regulation
"Battery management system" means an electronic device that controls or manages the electric and thermal functions of the battery to ensure the battery's safety, performance, and service life, and that manages and stores the data.

The table below outlines requirements that the economic operators must fulfill within a given timeframe:

From this date	The economic operators must ensure that
18 August 2024	stationary battery energy storage systems and electric vehicle batteries that use a battery management system shall contain in their battery management system up-to-date data on the parameters for determining the state of health and expected lifetime of batteries as laid down in Annex VII

The Regulation requires that rechargeable industrial batteries and EV batteries shall contain a battery management system that stores the information and data needed to determine the state of health and expected lifetime of batteries by the parameters laid down in Annex VII.

For stationary battery energy storage systems and EV batteries, access to the data on the abovementioned parameters in the battery management system shall be provided to respecting the intellectual property rights of the battery manufacturer, on a non-discriminatory basis to the legal or natural person who has legally purchased the battery, including independent operators or waste management operators, or any third party acting on their behalf at any time for:

- Making the battery available to independent aggregators operating virtual power plants in electricity grids
- Evaluating the residual value or remaining lifetime of the battery and capability for further use, based on the estimation of the state of health
- Facilitating preparing for re-use, preparing for repurposing, repurposing or remanufacturing of the battery

This data should be updated daily or even more frequently, and provided in a read-only form.

The battery management system should include a software reset function to enable access points for different software to economic operators carrying out preparing for reuse or repurpose, repurposing, or remanufacturing. In the case a software reset function is used, the original battery manufacturer will not be held liable for any breach of the safety or functionality of the battery that could be attributed to a battery management storage software uploaded after that battery was placed on the market.

Why is it important

This provision is key to ensuring second-life batteries uptake.

Not to overlook

The table below depicts delegated acts that the Commission is empowered to adopt:

	The Commission will...
No date	adopt a delegated act to amend the parameters for determining the state of health and expected lifetime of batteries given market developments and technical and scientific progress and to ensure synergies with parameters set in United Nations (UN) Global Technical Regulation (GTR 22) on In-vehicle Battery Durability for Electrified Vehicles, with due regard to the intellectual property rights of battery manufacturer

Check: Article 14, 38 Annex VII

3.10. Supply-Chain Due Diligence Schemes, Responsible Sourcing

Previous legislation

Although not properly discussed in the 2006 Battery Directive, the provision related to the supply chain were present in the EU legislation, e.g. in the context of the Regulation (EU) 2017/821 which includes provisions for an indicative, non-exhaustive, regularly updated list of conflict-affected and high-risk areas.

With the new Regulation

This Chapter does not apply to economic operators that had a net turnover of less than EUR 40 million in the financial year preceding the last financial year, and that are not part of a group, consisting of parent and subsidiary undertakings, which, on a consolidated basis, exceeds the limit of EUR 40 million. This Chapter does not apply to economic operators in relation to the placing on the market or putting into service of batteries that have been subject to preparation for re-use, preparation for repurposing, repurposing or remanufacturing, if such batteries had already been placed on the market or put into service before undergoing such operations. This Chapter applies without prejudice to the provisions laid down in Union law on due diligence obligations in relation to minerals and metals originating from conflict-affected and high-risk areas.

By this date	The Commission will...
18 February 2025	publish guidelines as regards the application of the due diligence requirements

From this date	The economic operator shall comply with...
18 August 2025	the due diligence obligations set out in the Regulation and set up and implement due diligence policies

Obligations for economic operators are well-defined:

- Adopt, and clearly communicate to suppliers and the public, a company due diligence policy for batteries, concerning raw materials
- Incorporate in its due diligence policy standards consistent with the standards set out in internationally recognised due diligence Guidance standards
- Structure its respective internal management systems to support due diligence policy by assigning responsibility to the top management level of the economic operator to oversee the due diligence policy as well as maintain records of those systems for a minimum of ten years
- Establish and operate a system of controls and transparency over the value chain
- Incorporate its due diligence policy into contracts and agreements with suppliers
- Establish a grievance mechanism or provide for such mechanisms through collaborative agreements with other economic operators or organisations, or by facilitating recourse to an external expert or body.

Apart from the obligations mentioned above, the economic operators are required to fulfil the obligations regarding the risk management plan:

- identify and assess risks of adverse impacts in its supply chain
- design and implement a strategy to respond to the identified risks to prevent, mitigate, and otherwise address adverse impacts

Economic operators shall have their battery due diligence policies verified by a notified body and periodically audited by that notified body to make sure that the battery due diligence policies are maintained and applied. The notified body shall provide the audited economic operator with an audit report.

Why is it important

The Regulation stresses the importance of using materials that have been obtained in full respect of social and ecological standards.

Not to overlook

The table below lists future delegated acts and actions planned by the Commission:

	The Commission will...
No date	Regularly make an assessment on the need to update the list of raw materials and risk categories set out in Annex X
No date	Adopt delegated acts to amend the lists of raw materials in and risk categories
No date	Adopt delegated acts amend the list of international instruments in accordance with developments within the relevant international fora concerning standards related to due diligence policies, protection of the environment and of social rights
No date	Amend the obligations on the economic operators
No date	Amend the list of internationally recognised due diligence instruments

Check: Article 47, 48; 50 -55, 69, 76, Annex X

3.11. Green Public Procurement

Previous legislation

Key provisions regarding public procurement are present in Directive 2014/24/EU and Directive 2014/25/EU.

With the new Regulation

When procuring batteries or products containing batteries, contracting authorities, and contracting entities must consider the environmental impacts of batteries over their life cycle to ensure that such impacts are kept

to a minimum.

Contracting authorities and contracting entities are asked to include technical specifications and award criteria based on sustainability requirements to ensure that a product is chosen among products with significantly lower environmental impacts over their life cycle.

"Contracting authorities" means the State, regional, or local authorities, bodies governed by public law, or associations formed by one or more such authorities or one or more such bodies governed by public law. "Contracting entities" are entities that are contracting authorities or public undertakings.

The table below lists future obligations concerning green public procurement:

From this date...	Contracting authorities or entities...
12 months after entry in force of the first delegated act referred to in the table below	Are obliged in any procedure for procurement to take account of the environmental impacts of batteries over their life cycle with a view to ensure that such impacts of the batteries procured are kept to a minimum

Why is it important
For the first time, green public procurement provisions specific for batteries are introduced.

Not to overlook
The table below lists future delegated acts concerning green public procurement:

From this date...	The Commission will...
12 months after entry into force of the latest of the delegated acts referred to in Article 7(2), fourth subparagraph, point (a), Article 8(1), Article 9(2) and Article 10(5) of the Regulation	adopt delegated acts to establish criteria for the award of procurement procedures for batteries based on the sustainability requirements

Check: Article 85

3.12. Safety of Battery Storage Systems

Previous legislation
Battery safety was significantly covered by existing EU legislation, except for stationary battery energy storage systems.

Producers or third parties should set up schemes to provide for the treatment and recycling of waste batteries and accumulators. All identifiable batteries and accumulators collected by the 2006 Batteries Directive or with Directive 2002/96/EC should undergo treatment and recycling through schemes that comply with Community legislation, particularly regarding health, safety, and waste management.

With the new Regulation

The table below lists future obligations concerning safety of stationary battery energy storage system:

<table>
<tr><th>By this date</th><th>Technical documentation referring to Conformity assessment procedures (Annex VIII of the Regulation) should...</th></tr>
<tr><td rowspan="3">18 August 2024</td><td>demonstrate that stationary battery energy storage systems are compliant with the requirements and include evidence that they have been successfully tested for the safety parameters for which state-of-the-art testing methodologies shall be used</td></tr>
<tr><td>include an assessment of possible additional safety hazards, not addressed in Annex V, of the battery energy storage system.</td></tr>
<tr><td>include evidence that the additional hazards have been successfully mitigated and tested for which state-of-the-art testing methodologies shall be used</td></tr>
<tr><td colspan="2">include mitigation instructions in case the identified hazards may occur, for example a fire or explosion</td></tr>
<tr><td colspan="2">The technical documentation shall be reviewed if a battery is prepared for re-use, prepared for repurpose, remanufactured or repurposed.</td></tr>
</table>

Why is it important

The Regulation introduces key safety measures and restrictions.

Not to overlook

The table below lists future delegated acts concerning safety parameters:

By this date	The Commission is...
No date	empowered to adopt delegated acts in accordance with Article 89 to amend the safety parameters laid down in Annex V in view of technical and scientific progress

Recitals of the Regulation highlight that safety test parameters should be laid down for stationary battery energy storage systems and complimented by applicable CEN, CENELEC, and IEC standards. Nevertheless, no requirement/provision is actually in place in the articles of the Regulation.

Check: Article 4, 12, 59-60, 66-68, 89, Annex V

3.13. Labelling

Previous legislation

In the 2006 Batteries Directive, labelling requirements applied to batteries, e.g. in the context of capacity labels, chemical content, and waste segregation. Rules regarding capacity labelling of batteries were also present in the Regulation (EU) No 1103/2010.

With the new Regulation

The table below lists future obligations concerning labelling:

From this date...	...Or (whichever is later)	Economic operators must ensure that...
18 August 2025		all batteries are marked with the symbol indicating 'separate collection' in accordance with the requirements laid down in Annex VI
18 August 2026	18 months after the entry into force of the implementing act	all batteries are marked with a label containing the general information
18 February 2027		all batteries are marked with a QR code that should provide access to certain information. Depending on the type of battery, different information is required. For industrial batteries with a capacity above 2kWh and EV batteries: • battery passport Other batteries: • the declaration of conformity, the report, and the information regarding the prevention and management of waste batteries

The information in the table above shall be complete, up-to-date and accurate.

Why is it important
Batteries will be required to provide specific information; a significant change in the labelling approach.

Not to overlook
Batteries that have been subject to preparing for re-use, preparing for repurpose or repurposing, or remanufacturing shall be marked with new labels or markings.

The table below lists future delegated and implementing acts concerning labeling:

By this date	The Commission will...
No date	adopt delegated acts to provide for alternative types of smart labels instead of or in addition to the QR-code, in view of technical and scientific progress
18 August 2025	adopt implementing acts to establish harmonised specifications for the labelling requirements

Check: Article 4, 13, 18-20, 77; Annex VI

3.14. Conformity Assessment

3.14.1 Conformity Assessment Procedures

Previous legislation
Provisions on conformity were not properly present in the 2006 Battery Directive. Nonetheless, regulation on this topic was present in different pieces of legislation e.g. in Regulation (EC) No 765/2008.

With the new Regulation
Conformity assessment of batteries with the requirements set out in Articles 6, 9, 10, and 12-14 shall be carried out in accordance with one of the following procedures as outlined in the table below:

For batteries manufactured in series	• 'Module A - Internal production control', set out in Part A of Annex VIII or • 'Module D1 - Quality assurance of the production process', set out in Part B of Annex VIII
For batteries not manufactured in series:	• Module A - Internal production control', set out in Part A of Annex VIII or • 'Module G - Conformity based on unit verification', set out in Part C of Annex VIII

An additional conformity assessment of batteries that have been subject to preparing for re-use, preparing for repurpose or repurposing, or remanufacturing, shall be carried out in accordance with the 'Module A - Internal production control', set out in Part A of Annex VIII, considering the requirements set out in Articles 6, 9, 10 and 12 to 14.

Conformity assessment of batteries with the requirements set out in Articles 7 and 8 shall be carried out by one of the following procedures as outlined in the table below:

For all batteries	• 'Module D1 - Quality assurance of the production process' set out in Part B of Annex VIII for batteries manufactured in series or • 'Module G – Conformity based on unit verification' set out in Part C of Annex VIII for batteries not manufactured in series.

The EU declaration of conformity shall state that the fulfillment of the requirements set out in Articles 6 to 10 and 12 to 14 has been demonstrated. The EU declaration of conformity should:

- have the model structure set out in Annex IX
- contain the elements specified in the relevant modules set out in Annex VIII
- be updated, if necessary
- be translated into the language or languages required by the Member State in which the battery is placed or made available on the market or put into service
- be drawn up in electronic format and where requested provided in paper format

Batteries that are in conformity with harmonised standards shall be presumed to conform with the requirements set out in Articles 9, 10, 12, 13, 14, and 65a.

Specific rules and conditions for affixing the CE marking apply - see Article 20.

Why is it important

The Regulation defines the procedure through which notifying actors interact in the procedure of notification of conformity assessment bodies, which should guarantee that batteries respect a.o. determined standards and the content of the technical documentation.

Not to overlook

Where a battery is subject to more than one Union act requiring an EU declaration of conformity, a single EU declaration of conformity should be drawn up in respect of all such Union acts and state the Union acts concerned and their publication references.

By drawing up the EU declaration of conformity, the manufacturer shall assume responsibility for the compliance of the battery with the requirements laid down in this Regulation.

A single EU declaration of conformity may be made up of one or more individual EU declarations of conformity already drawn up in compliance with a different Union act, to reduce the administrative burden on economic operators.

Check: Article 6-10, 12-14, 15, 17-18; Annex VIII, IX

3.14.2 Conformity Assessment Bodies

Previous legislation

Provisions on conformity were not properly present in the 2006 Battery Directive. Nonetheless, regulation on this topic is present in different pieces of legislation e.g. in Regulation (EC) No 765/2008.

With the new Regulation

The Regulation prescribes to notified bodies the creation of a conformity assessment body, which should be independent of all business ties and from the battery model it assesses. A conformity assessment body shall at all times have access to all testing equipment or facilities needed for each conformity assessment procedure and each battery model about which it has been notified.

Why is it important

The Regulation identifies the relevant bodies that should guarantee that batteries respect determined standards, which include the description of the module, the content of the technical documentation, and several others as specified in Annex VIII of the same Regulation.

Not to overlook

/

Check: Article 21-37, Annex VIII

Annexes

1. F.A.Q.

a. Can Member States prevent batteries from entering the market?

This Regulation is binding in its entirety and directly applicable in EU member states without the need for national implementing legislation.

Member States cannot prohibit, restrict or impede the making available on the market or the putting into service of batteries that comply with this Regulation.

That said, if objections are raised against a measure taken by market surveillance authorities, or where the Commission considers a national measure to be contrary to Union legislation, the Commission must enter into consultation with the Member States and the relevant economic operator or operators and evaluate the national measure. If the objection is considered justified, the non-compliant battery must be withdrawn from the market, and possibly new standards shall be developed.

If a Member State finds that a battery, although in compliance with the applicable Batteries Regulation requirements, is not safe, such Member State should withdraw the battery from the market or recall it; or ensure that when made available on the market, it no longer presents that risk.

b. Can a battery that does not comply with the Regulation be temporarily available on the market?

Batteries that do not comply with this Regulation they cannot be made available on the market or put into service until they have been brought into conformity. Exceptions may apply in specific cases, e.g. trade fairs.

c. Does this Regulation follow harmonised/international standards?

Compared to the initial proposal, Article 16 ensures that European Standardisation Organisation is empowered to draft any standard requested by the Commission. Nonetheless, the Commission can still adopt, in exceptional cases, delegated acts to lay down common specifications, such as when European Standardisation Organisation delivers standards, not in line with the Commission's request.

d. Is this Battery's Regulation in its definitive form?

Yes. However, numerous amending acts that we expect in the future will significantly shape the implementation of the Regulation.

e. Does the Commission have preferences regarding recycling vis-à-vis second-life batteries?

There is no preference from the Commission side. The objective is to create a level playing field and let the market decide which solutions work best.

f. When will the Battery Regulation be reviewed?

By 30 June 2031 the Commission will draw up a report on the application of this Regulation and its impact on the environment, human health, and the functioning of the internal market and submit and present it to the European Parliament and the Council Overview of Primary and Secondary Legislation. If necessary, the report will be accompanied by a legislative proposal for amendment of the relevant provisions of this Regulation.

2. Overview of Primary and Secondary Legislation

The following table lists obligations and requirements that stem from the Regulation:

Regulation Section	Art. No.	Requirement	Deadline
Safety of Stationary Battery Storage System	12	Technical documentation should demonstrate that stationary battery energy storage systems are compliant with the requirements and include evidence that they have been successfully tested for the safety parameters for which state-of-the art testing methodologies shall be used	(by) 18 August 2024
Safety of Stationary Battery Storage System	12	Technical documentation should include an assessment of possible additional safety hazards, not addressed in Annex V, of the battery energy storage system.	(by) 18 August 2024
Safety of Stationary Battery Storage System	12	Technical documentation should include evidence that the additional hazards have been successfully mitigated and tested for which state-of-the-art testing methodologies shall be used	(by) 18 August 2024
Safety of Stationary Battery Storage System	12	Technical documentation should include mitigation instructions in case the identified hazards may occur, for example a fire or explosion	(by) 18 August 2024

Regulation Section	Art. No.	Requirement	Deadline
Battery Management Systems	14	Economic operators must ensure that stationary battery energy storage systems and electric vehicle batteries that use a battery management system shall contain in their battery management system up-to-date data on the parameters for determining the state of health and expected lifetime of batteries	(from) 18 August 2024
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint declaration: EV batteries	18 February 2025/12 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Due Diligence	48	The Commission will publish guidelines as regards the application of the due diligence requirements	(by) 18 February 2025
End of life	55	The obligations for the transmission of data to the Commission from Directive 2006/66/EC will apply.	(until) 30 June 2025
Labelling	13	Economic operators must ensure that all batteries are marked with the symbol indicating 'separate collection' in accordance with the requirements laid down in Annex VI	(from) 18 August 2025
Due Diligence	48	The economic operator shall comply with the due diligence obligations set out in the Regulation and set up and implement due diligence policies	(from) 18 August 2025
End of life	55	Obligations related to monitoring and reporting the recycling efficiencies of recycling processes from Directive 2006/66/EC will apply.	(until) 31 December 2025

Regulation Section	Art. No.	Requirement	Deadline
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint declaration: rechargeable industrial batteries except those with exclusively external storage	18 February 2026/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
End of life	55	Obligations for the transmission of data to the Commission from Directive 2006/66/EC will apply.	(until) 30 June 2027
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint performance class requirements: rechargeable industrial batteries except those with exclusively external storage	18 August 2027/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Performance and Durability	10	Requirement for economic operators to ensure that batteries meet the minimum values for the electrochemical performance and durability parameters	(from) 18 August 2027/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint performance class requirements: EV batteries	18 August 2026/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Labelling	13	Economic operators must ensure that all batteries are marked with a label containing the general information	(from) 18 August 2026/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Labelling	13	Economic operators must ensure that all batteries are marked with a QR code that should provide access to certain information. Depending on the type of battery, different information is required	(from) 18 February 2027

Regulation Section	Art. No.	Requirement	Deadline
Digital Battery Passport	77	Each industrial battery with a capacity above 2 kWh and each electric vehicle battery placed on the market or put into service shall have an electronic record (“battery passport”)	(from) 18 February 2027
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint declaration: LMT batteries	18 August 2028/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Recycled Content in Batteries	8	Requirement for economic operators to ensure that batteries have accompanied documentation testifying to the share of recovered materials in them	18 August 2028/24 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Performance and Durability	10	Requirement for economic operators to ensure that LMT batteries meet the minimum laid down in the delegated act adopted by the Commission	(from) 18 August 2028 /18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint performance class requirements: LMT batteries	18 February 2030/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint declaration: rechargeable industrial batteries with external storage	18 August 2030/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Recycled Content in Batteries	8	Requirement for economic operators to demonstrate batteries contain certain percentages of recovered materials	18 August 2031

Regulation Section	Art. No.	Requirement	Deadline
Carbon Footprint for Industrial and EV Batteries	7	Carbon footprint performance class requirements: rechargeable industrial batteries with external storage	18 February 2032/18 months after entry into force either of the delegated act or of the implementing act (whichever is the latest)
Recycled Content in Batteries	8	Requirement for economic operators to demonstrate batteries contain certain percentages of recovered materials (higher than the one above)	18 August 2036
Green Public Procurement	85	Are obliged in any procedure for procurement to take account of the environmental impacts of batteries over their life cycle to ensure that impacts of the batteries procured are kept to a minimum	12 months after entry in force of the first delegated act referred to in the delegated acts concerning Green Public Procurement in the table below

The following table lists delegated and implementing acts that stem from the Regulation:

Regulation Section	Art. No.	Empowerment	Deadline
Hazardous substances and materials	6	Delegated act: amend the restrictions of hazardous substances.	-
Hazardous substances and materials	6	Delegated act: amend the restrictions of substances.	-
Performance and Durability of Batteries	10	Delegated act: Amend the electrochemical performance and durability parameters in view of market development and technical and scientific progress, including in particular related to technical specifications of the informal UNECE Working Group on Electric Vehicles and the Environment.	-
Safety of Stationary Battery Storage System	12	Delegated act: amend the safety parameters laid down in Annex V in view of technical and scientific progress	-
Labelling	13	Delegated act: provide for alternative types of smart labels instead of or in addition to the QR-code, in view of technical and scientific progress.	-
Battery Management Systems	14	Delegated act: amend the parameters for determining the state of health and expected lifetime of batteries	-
Due Diligence	45	Assessment of the Commission on the need to update the list of raw materials and risk categories	-
Due Diligence	45	Delegated act: amend the lists of raw materials in and risk categories	-
Due Diligence	45	Delegated act: amend the list of international instruments in accordance with developments within the relevant international fora concerning standards related to due diligence policies, protection of the environment and of social rights	-
Due Diligence	45	Delegated act: Amend the obligations on the economic operators	-

Regulation Section	Art. No.	Empowerment	Deadline
Due Diligence	45	Delegated act: Amend the list of internationally recognised due diligence instruments	-
Treatment and Recycling	71	Delegated act: adopt delegated acts to add further materials with specific levels of recovered material and battery chemistries with specific levels of minimum recycling efficiency	-
Digital Battery Passport	77	Delegated act: change the information to be included in the battery passport in view of technical and scientific progress	-
Digital Battery Passport	77	Delegated act: amend in light of technical and scientific progress to replace/add standards with which the QR code and the unique identifier shall comply	-
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing methodology for calculation and verification of the carbon footprint, and its implementing act for EV batteries	(by) 18 February 2024
Performance and Durability of Batteries	10	Delegated act: ensure that LMT batteries, rechargeable industrial batteries with a capacity above 2 kWh, and electric vehicle batteries are accompanied by a document containing values for the electrochemical performance and durability parameters	(by) 18 August 2024
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing carbon footprint performance classes, and its implementing act establishing the formats of the labelling for EV batteries	(by) 18 February 2025

Regulation Section	Art. No.	Empowerment	Deadline
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing methodology for calculation and verification of the carbon footprint, and its implementing act for rechargeable industrial batteries, except those with external storage	(by) 18 February 2025
Treatment and Recycling	71	Delegated act: Establish the methodology for calculation and verification of recycling efficiencies and recovery of material	(by) 18 February 2025
Labelling	13	Implementing acts to establish harmonised specifications for the labelling requirements.	(by) 18 August 2025
Performance and Durability of Batteries	10	Delegated act: Establish minimum values for the electrochemical performance and durability parameters for rechargeable industrial batteries with a capacity above 2kWh, except those with exclusively external storage	(by) 18 February 2026
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing carbon footprint performance classes, and its implementing act establishing the formats of the labelling for rechargeable industrial batteries, except those with external storage	(by) 18 August 2026
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: determine the maximum life cycle carbon footprint threshold for EV batteries	(by) 18 August 2026
Treatment and Recycling	71	Delegated act: the Commission will Continue to monitor market developments and, if needed, revise recycling efficiencies and the recovery of materials	(by) 18 August 2026

Regulation Section	Art. No.	Empowerment	Deadline
Digital Battery Passport	77	Implementing act: specifying information accessible only to any natural or legal person with a legitimate interest in accessing and processing additional information	(by) 18 August 2026
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing methodology for calculation and verification of the carbon footprint, and its implementing act for LMT batteries	(by) 18 February 2027
Performance and Durability of Batteries	10	Delegated act: Establish minimum values for the electrochemical performance and durability parameters that LMT batteries shall attain	18 February 2027
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: determine the maximum life cycle carbon footprint threshold for rechargeable industrial batteries except those with exclusively external storage	(by) 18 February 2028
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: for a maximum life cycle carbon footprint threshold shall apply for EV batteries	18 February 2028/18 months after entry into force either of the delegated or implementing act (whichever is the latest)
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing carbon footprint performance classes, and its implementing act establishing the formats of the labelling for LMT batteries	(by) 18 August 2028
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: for a maximum life cycle carbon footprint threshold shall apply for Rechargeable industrial batteries except those with exclusively external storage	18 February 2029/18 months after entry into force either of the delegated or implementing act (whichever is the latest)

Regulation Section	Art. No.	Empowerment	Deadline
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing methodology for calculation and verification of the carbon footprint, and its implementing act for industrial batteries with external storage	(by) 18 February 2029
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: establishing carbon footprint performance classes, and its implementing act establishing the formats of the labelling for industrial batteries with external storage	(by) 18 August 2030
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: for a maximum life cycle carbon footprint threshold shall apply for LMT batteries	(from) 18 August 2031 /18 months after entry into force either of the delegated or implementing act (whichever is the latest)
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: determine the maximum life cycle carbon footprint threshold for LMT batteries	(by) 18 February 2032
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: determine the maximum life cycle carbon footprint threshold for rechargeable industrial batteries with external storage	(by) 18 February 2032
Carbon Footprint for Industrial and EV Batteries	7	Delegated act: for a maximum life cycle carbon footprint threshold shall apply for Rechargeable industrial batteries with external storage	(from) 18 August 2033/18 months after entry into force either of the delegated or implementing act (whichever is the latest)
Green Public Procurement	85	Delegated act: establish criteria for the award of procurement procedures for batteries based on the sustainability requirements	12 months after entry into force of the latest of the delegated acts referred to in Article 7(2), fourth subparagraph, point (a), Article 8(1), Article 9(2) and Article 10(5) of the Regulation

3. Other Key Policies and Legistlative Actions

The Battery Regulation is fully in line with the EU's existing environmental and waste legislation. It complements this legislation, including:

- Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures
- Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading regulated market
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
- Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights
- Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE)
- Circular Economy Action Plan, European Commission, 2020
- Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement
- Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport, and postal services sectors
- Directive 2019/771/EU of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the sale of goods
- Directive 2019/882/EU of the European Parliament and of the Council of 10 September 2019 on the accessibility requirements for products and services
- Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity
    - Clean Energy Package

Upcoming legislation in 2023 may further impact the battery sector, e.g.:

- Revision of Regulation (EC) No 1013/2006 on Shipments of Waste
- European Critical raw materials act
- Net-Zero Industry Act
- Green deal industrial plan

4. Overview of EASE's Policy Recommendations

Overview of EASE's 2021 policy recommendation and their status in the new Regulation	
Clarify classifications and definitions: The definitions need to reflect the reality and evolution of stationary storage in a.o. domestic, institutional, grid services, facilities, agriculture, and industrial settings.	**Positive:** Additional categorisation, which includes stationary battery energy storage system energy storage. The weight to define industrial vs portable batteries is still the same. New terms and unit of analysis for the Regulation, which distinguishes between: 1. Battery Pack 2. Battery module 3. Battery cell. Important terminology for BESS, such as "aggregator", has also been added.
Rely on stakeholders for the elaboration of the carbon footprint calculation methodology	**Positive:** The Commission and the JRC have understood that "not all batteries are equal". In other words, they see that a carbon footprint for EV batteries is more easily calculated than in the case of energy storage. A significant amount of time is allocated to establishing the PEF for BESS. The Commission has also understood the importance of stakeholder engagement: EASE has been invited to participate in the work to establish the CF methodology.
Rely on existing hazardous substances legislation, avoid overlapping norms	**Neutral:** In the Chemicals Strategy for Sustainability, the Commission underlines that the REACH and CLP Regulations should be reinforced as the EU's cornerstones for regulating chemicals in the Union. Therefore, this Regulation was envisioned to complement the REACH and CLP Regulations and allow the adoption of risk management measures related to substances including the waste phase. Although this clarification directs policymakers to the existing pieces of legislation for hazardous substances, it is difficult to assess if it will truly mitigate the risk of legislation overlapping in practice. Different needs of different types of batteries are not properly addressed as the restriction on hazardous materials, as laid down in Annex I of the Regulation, encompasses all types of batteries.
Remove minimum shares of recovered material obligations	**Negative:** Unfortunately, mandatory minimum shares of recovered materials remain. The Commission can adopt delegated acts by adding further materials with specific levels of recovered material per specific material and adding further battery chemistries with specific levels of minimum recycling efficiency.

Remove norms related to performance and durability	**Negative:** As with the previous point, norms related to performance and durability remained in the Regulation. Luckily, the relevant delegated acts will not enter into force before the end of 2025 at the earliest, further away in time compared to the original proposal. Yet, it is still unclear, even for the Commission, how these standards are going to be set.
Streamline information reporting obligations	**Positive, with some reserves:** Specific requirements to be fulfilled within a given timeframe are set out for batteries' labeling: this systematization of requirements prevents overlapping. However, the financial responsibilities of implementing these new requirements are allocated to economic operators which poses an additional strain that will impact smaller companies. Luckily, for some topics, smaller companies are exempted from certain provisions. Likewise, a battery passport is better regulated, and it takes into consideration whom it is directed to – the general public or economic operators. This eases the administrative burden and protects intellectual property.
Understand that some batteries operate without a battery management system	**Negative:** Battery management system requirements are required. The European Commission felt that excluding some types of batteries could have unintended consequences. The BMS is better regulated, but will still represent a burden.
Further elaborate and clarify batteries repurposing standards	**Positive, with some reserves:** The original idea of second-life batteries has been de facto scrapped for a much more detailed mechanism that looks at repurposing, remanufacturing, reusing, preparing for reusing, and preparing for repurposing. The system is valid in understanding that different actors need different information and should have different responsibilities. The Regulation is not worded clearly, but the content itself is valid. The Regulation also has been changed to further rely on existing IEC, CEN, and CENELEC standards have been added.
Make sure European Standardisation Organisations are fully involved in the standards development	**Positive, with some reserves:** The text now pushes the Commission to rely more extensively on stakeholders and International Standardisation Bodies. The role of IEC, ISO, or UNECE has been strengthened, and consistency is promoted. Yet, the Commission was still able to ensure that, in case the actors mentioned above are not responsive, it can still take necessary action.

Ensure the social and environmental sustainability of batteries	**Positive, with some reserves:** The new Regulation addresses environmental and social sustainability challenges across the battery value chain. Detailed requirements and obligations from the economic operators in terms of due diligence, including incorporation and communication of due diligence policy standards to the public, third-party verification of battery due diligence policies, and other. Special attention is paid to high-risk and conflict-affected areas. It may be argued that the administrative burden are significant: luckily, smaller companies are exempted. Recycling norms and requirements now extended to waste batteries exported from the Union for preparation for re-use, preparation for repurposing or recycling.
Develop sound, science-based, collection and recycling efficiency targets	**Neutral:** Recycling efficiency targets for lithium increased from the previous proposal. Unfortunately, the calculation methodology will only be defined in 2026, so assessing the validity of the targets is hard. Positively, the new Regulation supports the inclusion of some of the battery manufacturing waste in the recycled content targets which could potentially aid in achieving the collection and recycling efficiency targets. For those rules, the re-utilisation of materials such as rework, regrind, or scrap generated in the battery manufacturing process, which can be reclaimed within the same process that generated it, should be excluded.

Avenue Adolphe Lacomblé 59/8
1030 Brussels | Belgium
Tel: +32 2 743 29 82
@EASE_ES

www.ease-storage.eu
info@ease-storage.eu