



EU Battery Regulation 2023/1542

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Introducing your speaker



Jakub Kački has been with UL Solutions for 18 years. He is the global business development manager focused on global battery business (portable, wearable, micromobility) within the consumer, medical and information technology division at UL Solutions. He works with our commercial, operations and field services departments to drive the development of safety-related services and programs for batteries, information technology equipment, consumer electronics products, micromobility and more.

Introducing your speaker



Dr. Renate Messing is a UL Solutions research scientist for product sustainability. She has a professional background in polymer chemistry and over 10 years of experience in safety and sustainability certification.

Within her current role she is improving and developing UL Solutions' environmental programs to support customers in validating the sustainability impact at different levels of the manufacturing value chain. This includes fundamental knowledge on UL Solutions Environmental Claim Validation Procedure (ECVP) of products, e.g., recycled content/biobased content validation or substance content claims, as well as EPD, LCA, and GHG analysis.

Agenda

1. Regulation scope and key areas covered
2. Portable batteries applicable articles and timelines
3. Excerpt of articles and requirements
4. Notified body assessment
5. UL Solutions global support

Regulation scope and key areas covered



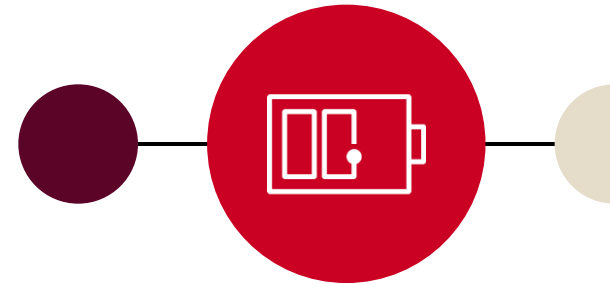
New EU battery regulation 2023/1542

The new battery regulation 2023/1542 in the EU entered into force on **Aug. 17 2023**.

It applies to **all batteries** placed on the EU market, and to **all economic operators** placing batteries on the market. That means it has **global** applicability and brings new requirements to many parties involved in the battery supply chain.

This regulation applies to **all categories of batteries** and to batteries that are **incorporated or added** (or designed to be) to products.

The regulation lays down requirements on sustainability, safety, labeling, marking, and information. It also lays down minimum requirements for extended producer responsibility, the collection and treatment of waste batteries, and reporting. It imposes battery due diligence obligations and also lays down requirements for green public procurement operators.



Key areas covered

Design requirements

- Restrictions of substances
- Carbon footprint
- Recycled content
- Performance and durability
- Removability and replaceability
- Safety only for energy storage like stationary battery energy storage systems (SBESS) requirements

Information and traceability

- labeling and CE marking
- Information via QR code
- Digital battery passport

End of life

- Extended producer responsibility (EPR) obligations for producers/producer responsibility organizations (PROs)
- Collection of waste portable/light means of transport (LMT) batteries
- Recycling efficiency targets
- Material recovery targets
- Shipment of waste batteries outside the EU
- Reporting obligations

Due diligence

- Due diligence policy
- Management system
- Risk management plan
- Third-party verification
- Disclosure of information

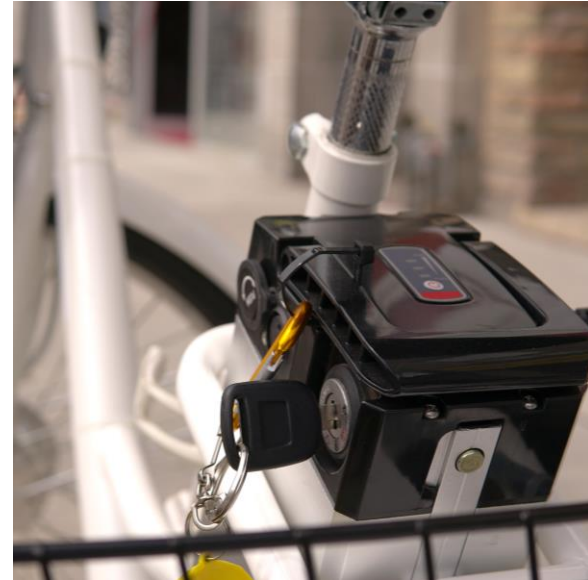
Major changes from battery directive

- **Directive** – Regulation and single basis (single market)
- **Article 1** – Amended battery categories — portable, industrial, automotive, electric vehicle (EV), Light Means of Transport (LMT) battery, Starter, Lighting or Ignition (SLI)
- **Article 3** – Definitions: Producer — economic operator, portable batteries (less than 5 kg and neither Industrial nor EV or automotive); no longer battery packs
- **Article 6/86** – Hazardous substances; restrictions process; amendments to restrictions on hazardous substances; focus on European Commission and commission agencies
- **Article 7 C02** – Declaration/classes/maximum limit
- **Article 8** – Recycled content — declaration/low target/higher target
- **Article 9/10** – Performance and durability — criteria for portable as well as industrial and EV, LMT
- **Article 11** – Design for removability and replaceability
- **Article 12** – Safety testing



Major changes from battery directive (cont.)

- **Article 14/56** – Second life — access to battery management system (BMS) info, waste classification impact; demonstrate second-life suitability upon request
- **Chapter VII** – Due diligence — reporting/management systems with an accreditation/recognition mechanism for government/association schemes
- **Article 59/61** – Higher collection target for portable batteries and maintenance of no-loss collection mechanism for industrial, automotive and EV
- **Article 71** – Recycling efficiencies — increased and additional class for lithium batteries (Annex XII)
- **Article 71** – Recovery rates — low targets/higher targets (Annex XII)
- **Article 74/14/77** – Information and labeling — battery passport, labeling (chemistry, lifetime, charging capacity, collection, hazardous substances, safety risks), electronic database, second life data sets



Portable batteries applicable articles and timelines



New battery categories

- **Portable battery**

- refers to any battery that is sealed, weighs less than 5 kg, is not designed specifically for industrial use, and is not SLI or LMT.
- **Portable battery for general use** refers to a primary or secondary portable battery specifically designed to interoperate within common formats — 3R12, button cell, D, C, AA, AAA, AAAA, A23 and PP3.

- **EV batteries** are specifically designed to provide electric power for traction of hybrid or electric vehicles of Category L in the meaning of Regulation (EU) No. 168/2013 with a weight above 25 kg, or batteries designed to provide electric power for traction of hybrid and electric vehicles of M, N or O categories in the meaning of Regulation (EU) No. 2018/858.
- **Industrial batteries** are designed specifically for industrial purposes or for industrial uses after repurposing, or any other battery with a weight above 5 kg that is not an LMT, EV or SLI battery.
- **Stationary battery energy storage systems (SBESS)** are rechargeable industrial batteries with internal storage specifically designed to store and deliver energy from and into the grid to end users.

- **Light means of transport (LMT)** refers to a battery that is sealed and weighs 25 kg or less. It is designed to provide electric power for traction of wheeled vehicles powered by electric motors or a combination of motor and human power, including vehicles of Category L in the meaning of Regulation (EU) No. 168/2013; it does not include EV batteries.
- **SLI batteries** are designed to supply electric power for Starting, Light, and Ignition. They can also be used for auxiliary or backup purposes in vehicles, other means of transport or machinery.

Battery types and applicability of major articles

	Carbon footprint — Art. 7	Restriction of substances (Cd/Hg/Pb) — Art. 6	Recycled content (Co/Pb/Li/Ni) — Art. 8	Replacability and repairability — Art. 11	Performance and durability — Art. 9 and 10	Safety requirements — Art. 12	Labeling, marking and information requirements — Art. 17, 18, 19, 20	Info on state of health and expected lifetime of batteries with BMS — Art. 14 and 76
Portable	-	+ / + / +	-	+ (Feb. 18, 2027)	+ (only for general-use batteries) (Aug. 18, 2028)	-	+ (Aug. 18, 2024)	-
LMT	+ (Aug. 18, 2028)	- / + / -	+ (Aug. 18, 2033)	+ (Feb. 18, 2027)	+ (From Aug. 18, 2024)	-	+ (Aug. 18, 2024)	+ (Aug. 18, 2024)
SLI	-	- / + / -	+ (Aug. 18, 2028)	-	-	-	+ (Aug. 18, 2024)	-
EV	+ (Feb. 18, 2025)	- / + / -	+ (Aug. 18, 2028)	-	+ (From Aug. 18, 2024)	-	+ (Aug. 18, 2024)	+ (Aug. 18, 2024)
Industrial — less than 2 kWh	-	- / + / -	-	-	-	+ (only SBESS) (Aug. 18, 2024)	+ (Aug. 18, 2024)	+ (only SBESS) (Aug. 18, 2024)
Industrial — more than 2 kWh	+ (non-rechargeable excluded) (Feb. 18, 2026)	- / + / -	+ (flow batteries excluded) (Aug. 18, 2028)	-	+ (non-rechargeable excluded) (From Aug. 18, 2024)	+ (only SBESS) (Aug. 18, 2024)	+ (Aug. 18, 2024)	+ (only SBESS) (Aug. 18, 2024)

+ - applicable | - - not applicable

Definitions (Art. 3): Manufacturer

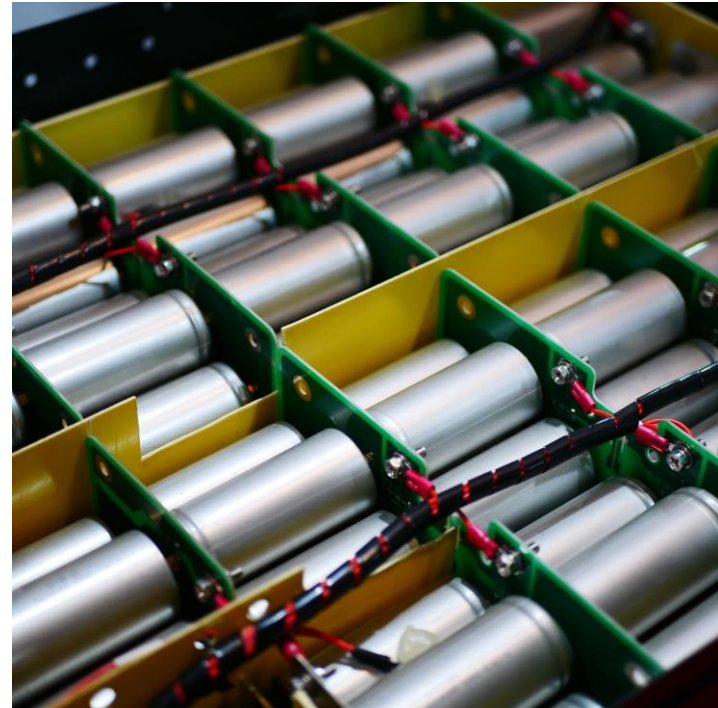
(33) 'manufacturer' means any natural or legal person who manufactures a battery or has a battery designed or manufactured, and markets that battery under its own name or trademark or puts it into service for its own purposes;

(67) The manufacturer, having detailed knowledge of the design and production process, is best placed to carry out the conformity assessment procedure. Conformity assessment should therefore remain the obligation of the manufacturer alone.

(68) The manufacturer should provide sufficiently detailed information on the intended use of the battery to allow its correct and safe placing on the market, putting into service, use and waste management, including possible repurposing.

Obligations of manufacturers (other than the obligations in Chapters VII and VIII)

- When placing a battery on the market or putting it into service, including for the manufacturers' own purposes, manufacturers shall ensure that the battery:
 - Has been designed and manufactured in accordance with Articles 6, 9, and is accompanied by clear, understandable and readable instructions and safety information in a language or languages that can be easily understood by end users, as determined by the member state in which the battery is to be placed on the market or put into service
 - Is marked and labeled in accordance with Article 13
- Before placing a battery on the market or putting it into service, manufacturers shall draw up the technical documentation referred to in Annex VIII and carry out the relevant conformity assessment procedure referred to in Article 17 or have it carried out.
- Where compliance of a battery with the applicable requirements has been demonstrated by the relevant conformity assessment procedure referred to in Article 17, manufacturers shall draw up an EU declaration of conformity in accordance with Article 18 and affix the CE marking in accordance with Articles 19 and 20.



Obligations of manufacturers (other than the obligations in Chapters VII and VIII) (cont.)

- Manufacturers shall keep the technical documentation referred to in Annex IX and the EU declaration of conformity at the disposal of national authorities for 10 years after the battery has been placed on the market or put into service.
- Manufacturers shall ensure that procedures are in place for a battery that is part of a series production to remain in conformity with this regulation. In doing so, manufacturers shall adequately take into account changes in the production process or in battery design or characteristics and changes in the harmonized standards referred to in Article 15, common specifications referred to in Article 16 or other technical specifications by reference to which the conformity of the battery is declared or by application of which its conformity is verified.

Definition excerpt (Art. 3): Producer

“Producer” refers to any **manufacturer, importer or distributor or other natural or legal person** who, irrespective of the selling technique used, including by means of distance contracts, either:

- Is established in a member state and manufactures batteries under their own name or trademark, or has batteries designed or manufactured and supplies them for the first time under their own name or trademark, including those incorporated in appliances, LMT or other vehicles within the territory of that member state
- Is established in a member state and resells within the territory of that member state — under their own name or trademark — batteries, including those incorporated in appliances, LMT or other vehicles manufactured by others, on which the name or trademark of those other manufacturers does not appear
- Is established in a member state and supplies for the first time in that member state on a professional basis batteries, including those incorporated in appliances, LMT or other vehicles, from another member state or from a third country
- Sells batteries, including those incorporated in appliances, LMT or other vehicles, by means of distance contracts directly to end users, whether or not they are private households, in a member state and is established in another member state or in a third country

Note: Clarifications of commission expected, e.g., regarding re-exporting, type of distance contract, etc.

Extended producer responsibility (EPR) obligations (Article 56)

- Producers of batteries shall have EPR for batteries they make available on the market for the first time within the territory of a member state.
- Producers shall pay financial contributions to cover the following costs:
 - Separate collection of waste batteries and their subsequent transport and treatment (including recycling)
 - Carrying out compositional surveys of collected mixed municipal waste
 - Providing information on prevention and management of waste battery costs of data gathering and reporting to competent authorities
- Preparing for reuse, preparing for repurpose, repurposing or remanufacturing operations on (waste) batteries triggers additional EPR obligations for economic operators. Producers may establish cost-sharing mechanisms when a battery is subject to more than one EPR.
- Producers may choose to entrust a producer responsibility organization (PRO) to carry out, on their behalf, their EPR obligations.

Register of producers (Article 55)

- Member States shall establish a register of producers which shall serve to monitor compliance of producers with the requirements of this Chapter.
- Producers shall register in the register referred to in paragraph 1 of Article 55. They shall to that end submit an application for registration in each Member State where they make a battery available on the market for the first time. Producers shall submit the application for registration via an electronic data-processing system as referred to in paragraph 9, point (a) of Article 55. Producers shall only make available batteries, including those incorporated in appliances, light means of transport or other vehicles, on the market of a Member State, if they or, in the case of authorization,
- Article 55 describes information required for registration.

Definitions (Art. 3): Economic operator

(22) “Economic operator” refers to the manufacturer, the authorized representative, the importer, the distributor or the fulfilment service provider or any other natural or legal person who is subject to obligations in relation to the manufacture, preparation for reuse, preparation for repurposing, repurposing or remanufacturing of batteries, the making available or the placing of batteries on the market, including online, or the putting of batteries into service in accordance with this regulation.

(65) Economic operators should be responsible for the compliance of batteries with the requirements of this regulation in relation to their respective roles in the supply chain to ensure a high level of protection of public interests such as human health, safety of persons, the protection of property and the environment.

(66) All economic operators active in the supply and distribution chain should take appropriate measures to ensure that they only make available on the market batteries that are in conformity with this regulation. It is necessary to provide for a clear and proportionate distribution of obligations that corresponds to the role of each economic operator in the supply and distribution chain.

Definitions (Art. 3): Economic operator (cont.)

(70) The single market should ensure equal conditions of competition for all economic operators and protection against unfair competition. To that end, strengthened enforcement of Union harmonization legislation on batteries is necessary. Good cooperation between economic operators and the market surveillance authorities is a key element of such strengthened enforcement, allowing immediate intervention and corrective action. **It is important that there be an economic operator established in the Union so that there is someone to whom market surveillance authorities can address requests, including requests for information regarding a battery's compliance with Union harmonisation legislation, and who can cooperate with market surveillance authorities in making sure that immediate corrective action is taken to remedy instances of noncompliance.** The economic operators who should perform those tasks are the manufacturer (or the importer when the manufacturer is not established in the Union) or an authorized representative mandated by the manufacturer for this purpose, or a fulfillment service provider established in the Union for batteries handled by it when no other economic operator is established in the Union.

Definitions (Art. 3): Importer & distributor

(64) 'importer' means any natural or legal person established within the Union who places on the market a battery from a third country;
Obligations of Importers are described in Article 41.

(65) 'distributor' means any natural or legal person in the supply chain, other than the manufacturer or the importer, who makes a battery available on the market;
Obligations of Distributors are described in Article 42.

Critical points

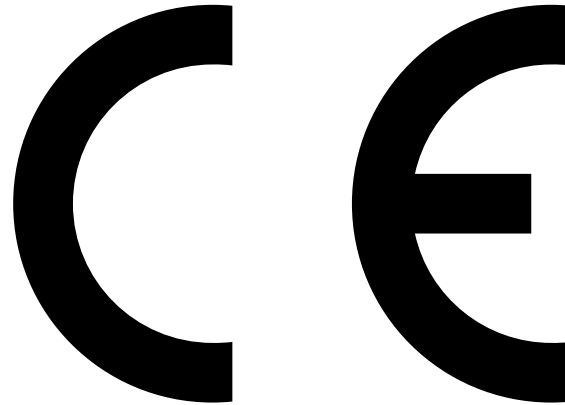
- 1** Each economic operator must understand where they are within supply chain and which requirements apply to them.
- 2** Understand, based on types of batteries manufactured/ sold/distributed, which articles apply.
- 3** Understand dates of implementation of applicable articles.
- 4** Understand that, for many articles, the Commission will publish additional guidelines or clarifications.
- 5** Understand what the economic operator is already doing in terms of sustainability and related requirements of the regulation to see which areas are already covered and which are not.

Excerpt of articles and requirements



CE label on batteries (Articles 19 and 20)

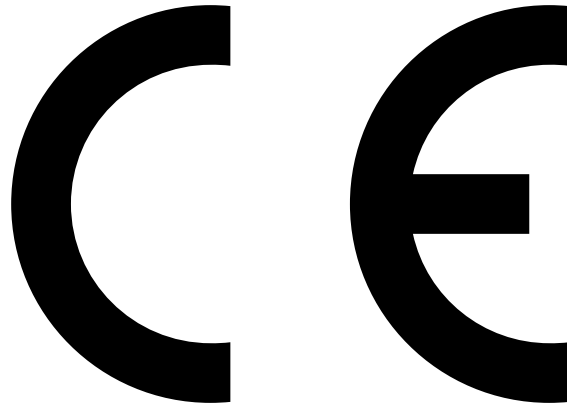
- The CE marking on a battery indicates the conformity of that battery with this Regulation.
- **From Aug. 18, 2024**, the CE marking shall be affixed before the battery is placed on the market or put into service.
- The manufacturer shall affix the CE marking to each individual battery that meets the applicable requirements or, where that is not possible or not warranted due to the nature of the battery, to the packaging and the documents accompanying the battery.
- The manufacturer shall draw up an EU declaration of conformity for each battery model in accordance with Article 18 and keep it together with the technical documentation at the disposal of the national authorities for 10 years after the last battery belonging to the respective battery model has been placed on the market.



CE label on batteries (Articles 19 and 20)

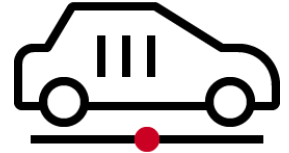
Where needed per Annex VIII, this marking is **granted by a notified certification body** and indicates that the product complies with EU safety, health and environmental protection requirements. The marking must be affixed on the battery before its placement on the market and must be **visible, legible and indelible**; if impracticable, it can be placed on the packaging and accompanying documents, just like the QR code.

In addition, the CE marking must include the **identification number** of the certifying body and, where necessary, be accompanied by hazard pictograms or other hazard markings related to battery use, storage, transport and treatment.



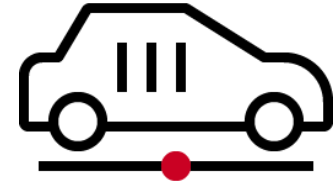
Labeling and marking summary

- **From Aug. 18, 2024**, the **CE marking** shall be affixed before the battery is placed on the market or put into service. Applicable to **all types** of batteries.
- **From Aug. 18, 2024**, as per Obligations of Manufacturers Article 38 (6) & (7), all batteries shall bear a model identification and batch or serial number, or product number or another element allowing their identification, and Manufacturers shall indicate on the battery their name, registered trade name or registered trademark, their postal address, indicating a single contact point, and, if available, web and email address. ...
 - Importers shall indicate on the battery their name, registered trade name or registered trademark, their postal address, indicating a single contact point, and, if available, web and email address. ... (per Article 41 (3)).
- **From Aug. 18, 2025**, additional labeling requirements start to apply (as indicated on next slides).
- **From 2027**, all batteries should be marked **with a QR code**.



Labeling (Article 13)

- **From Aug. 18, 2025**, on, all batteries per Annex VI B – “Separate collection” symbol and indication of whether battery contains cadmium or lead
- **From mid-2026**, all batteries will need to be labeled with some general information (including category, chemistry, weight, capacity, hazardous substances, manufacturing place and date), per Annex VI A.
- **From mid-2026**, non-rechargeable portable batteries will need to display their minimum average duration (MAD) for specific applications and be labeled as “non-rechargeable.”
- **From 2027**, all batteries should be marked **with a QR code** providing access to more detailed information. For the larger batteries — i.e., LMT batteries, EV batteries and industrial batteries with a capacity above 2 kWh — the QR code shall provide access to the information included in the battery passport.



QR code on each battery (Article 13)

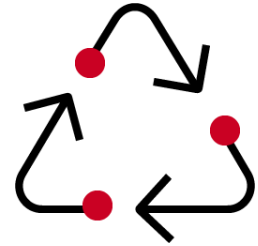
To enable consumers, economic operators and other stakeholders to easily access the applicable information referred to in paragraphs 1 to 5 of this Article 13, the declaration of conformity referred to in Article 18, the report referred to in Article 52(3) and the information regarding the prevention and management of waste batteries laid down in Article 74(1), points (a) to (f);, the information will be available via a **QR code** that must be:

- Printed or engraved visibly
- Big enough to be read by commonly available QR code readers
- Indelible on each battery

If this is not possible due to the nature and size of the battery, the QR code must be placed on the battery's packaging and accompanying documents. It should respect the guidelines of the QR code/bar code symbology specification in ISO/IEC 18004:2015, Information Technology – Automatic Identification and Data Capture Techniques.

Labels and QR codes should be accessible to persons with disabilities, in accordance with Directive (EU) 2019/882 of the European Parliament and of the Council.

QR code will cease to exist when the battery is recycled because these documents follow the life cycle of their related battery.



Restriction of substances (Articles 6 and 86, and Annex I)

In addition to the restrictions set out in Annex XVII to Regulation (EC) No. 1907/2006 and in Article 4(2), Point (a), of Directive 2000/53/EC, batteries shall not contain substances for which Annex I to this regulation (see below) contains a restriction unless the conditions of that restriction are complied with.

RESTRICTION ON SUBSTANCES

Column 1 Designation of the substance or group of substances	Column 2 Conditions of restriction
1. Mercury CAS No 7439-97-6 EC No 231-106-7 and its compounds	Batteries, whether or not incorporated into appliances, light means of transport or other vehicles, shall not contain more than 0,0005 % of mercury (expressed as mercury metal) by weight.
2. Cadmium CAS No 7440-43-9 EC No 231-152-8 and its compounds	Portable batteries, whether or not incorporated into appliances, light means of transport or other vehicles, shall not contain more than 0,002 % of cadmium (expressed as cadmium metal) by weight.
3. Lead CAS No 7439-92-1 EC No 231-100-4 and its compounds	1. From 18 August 2024, portable batteries, whether or not incorporated into appliances, shall not contain more than 0,01 % of lead (expressed as lead metal) by weight. 2. The restriction set out in point 1 shall not apply to portable zinc-air button cells until 18 August 2028.

Performance and durability requirements for portable batteries of general use (Article 9)

- **From Aug. 18, 2028**, or 24 months after the date of entry into force of the delegated act referred to in Paragraph 2, whichever is the latest, **portable batteries of general use, excluding button cells**, shall meet the minimum values for the electrochemical performance and durability parameters set out in Annex III as laid down in the delegated act adopted pursuant to Paragraph 2.
- **By Aug. 18, 2027**, the Commission shall adopt a delegated act in accordance with Article 89 to supplement this regulation by establishing mandatory minimum values for the electrochemical performance and durability parameters set out in Annex III for portable batteries of general use, excluding button cells.



Removability and replaceability of portable batteries and LMT batteries (Article 11)

- Any natural or legal person who places on the market products incorporating **portable batteries** shall ensure that those batteries are readily removable and replaceable by the end user at any time during the lifetime of the product. That obligation shall only apply to entire batteries and not to individual cells or other parts included in such batteries.
- A portable battery shall be considered readily removable by the end user where it can be removed from a product with the use of commercially available tools without requiring the use of specialized tools, unless provided free of charge with the product, proprietary tools, thermal energy or solvents to disassemble the product.
- Any natural or legal person who places on the market products incorporating portable batteries shall ensure that those products are accompanied with instructions and safety information on the use, removal and replacement of the batteries. Those instructions and that safety information shall be made available permanently online, on a publicly available website, in an easily understandable way for end users.

Removability and replaceability of portable batteries and LMT batteries (Article 11)

- By way of **derogation** from Paragraph 1, the following products incorporating portable batteries may be designed in such a way as to make the battery removable and replaceable only by independent professionals:
 - (a) Appliances specifically designed to operate primarily in an environment that is regularly subject to splashing water, water streams or water immersion, and that are intended to be washable or rinseable
 - (b) Professional medical imaging and radiotherapy devices, as defined in Article 2, Point (1), of Regulation (EU) 2017/745, and in vitro diagnostic medical devices, as defined in Article 2, Point (2), of Regulation (EU) 2017/746.

The derogation set out in Point (a) above shall only be applicable where such derogation is required to ensure the safety of the user and the appliance.

The obligations of paragraph 1 shall not apply where continuity of power supply is necessary and a permanent connection between the product and the respective portable battery is required to ensure the safety of the user and the appliance or, for products that collect and supply data as their main function, for data integrity reasons.

Removability and replaceability of portable batteries and LMT batteries (Article 11)

- **A portable battery or LMT battery** shall be considered readily replaceable where, after its removal from an appliance or light means of transport, it can be substituted by another compatible battery without affecting the functioning, the performance or the safety of that appliance or light means of transport.
- Any natural or legal person who places on the market products incorporating **portable batteries or LMT batteries** shall ensure that those batteries are available as spare parts of the equipment that they power for a minimum of five years after placing the last unit of the equipment model on the market, with a reasonable and non-discriminatory price for independent professionals and end users.
- Software shall not be used to impede the replacement of a portable battery or LMT battery — or of their key components — with another compatible battery or key components.
- **The Commission shall publish guidelines to facilitate the harmonised application of Article 11.**

Due diligence: Chapter VII (Articles 47-53 and Annex X)

Definition, Art. 3, Point (42): “‘Battery due diligence’ means the obligations of an economic operator in relation to its management system, risk management, third-party verifications and surveillance by notified bodies and disclosure of information, for the purpose of identifying, preventing and addressing actual and potential social and environmental risks linked to the sourcing, processing and trading of the raw materials and secondary raw materials required for battery manufacturing, including by suppliers in the chain and their subsidiaries or subcontractor.”

Annex X additionally specifies raw materials as “cobalt, natural graphite, lithium, nickel and chemical compounds based on these raw materials for the manufacturing of the active materials of batteries.”

Exceptions: Chapter VII **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.

Chapter VII 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 reuse, preparation for repurposing, repurposing or remanufacturing if such batteries had already been placed on the market or put into service before undergoing such operations.

Due diligence: Chapter VII (Articles 47-53 and Annex X)

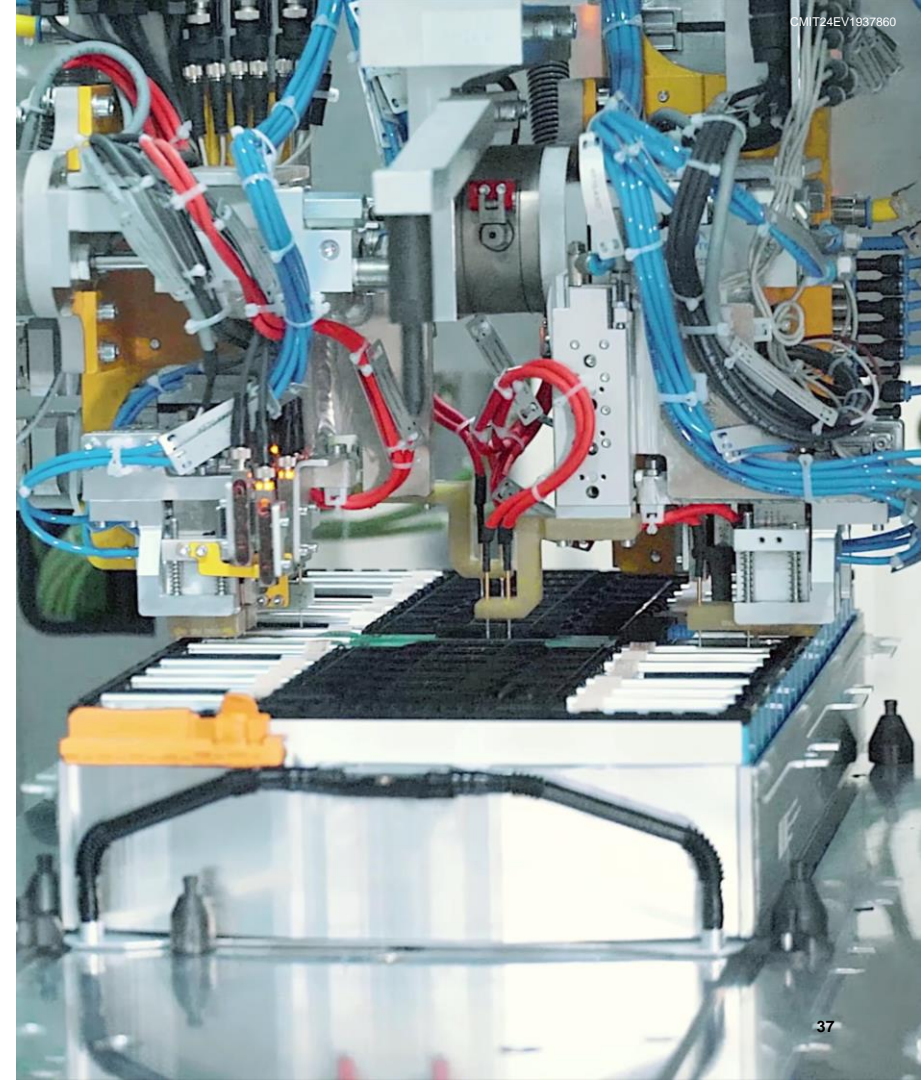
Policy's main points:

- From **Aug. 18, 2025**, economic operators that place batteries on the market or put them into service shall fulfil the due diligence obligations laid down in Paragraphs 2 and 3 of Article 48, and in Articles 49, 50 and 52 and shall, to that end, set up and implement battery due diligence policies.
- Economic operators referred to in Paragraph 1 of Article 48 shall have their battery due diligence policies **verified by a notified body in accordance with Article 51 (“third-party verification”)** and periodically audited by that notified body to make sure that the battery due diligence policies are maintained and applied in accordance with Articles 49, 50 and 52. The notified body shall provide the audited economic operator with an audit report.
- Economic operators referred to in Paragraph 1 of this article shall keep documentation demonstrating their fulfilment of the obligations laid down in Articles 49, 50 and 52, including the verification report and approval decision referred to in Article 51 and the audit reports referred to in Paragraph 2 of this Article, for 10 years after the last battery manufactured under the relevant battery due diligence policy has been placed on the market.

Due diligence: Chapter VII (Articles 47-53 and Annex X)

Policy's main points:

- Without prejudice to the individual responsibility of economic operators for their battery due diligence policies, economic operators referred to in Paragraph 1 of this article may, for the purposes of compliance with the requirements laid down in Articles 48-50 and 52, collaborate with other actors, including through due diligence schemes recognized under this regulation.
- **By Feb. 18, 2025, the Commission shall publish guidelines regarding the application of the due diligence requirements laid down in Articles 49 and 50 with regard to the risks referred to in Point 2 of Annex X and in line, in particular, with the international instruments referred to in Points 3 and 4 of Annex X.**



Economic operator's management system (Article 49)

Each economic operator referred to in Article 48(1) shall:

- Adopt and clearly communicate to suppliers and the public a company battery due diligence policy concerning raw materials listed in Point 1 of Annex X and associated social and environmental risk categories listed in Point 2 of Annex X
- Incorporate in its battery due diligence policy standards that are consistent with the standards set out in the internationally recognised due diligence instruments listed in Point 4 of Annex X
- Structure its internal management system to support its battery due diligence policy by assigning responsibility to its top management level to oversee its battery due diligence policy as well as maintain records of that system for a minimum of 10 years
- Establish and operate a system of controls and transparency regarding the supply chain, including a chain of custody or traceability system, identifying upstream actors in the supply chain
- Incorporate its battery due diligence policy, including risk management measures, into contracts and agreements with suppliers
- Establish a grievance mechanism, including an early-warning risk-awareness system and a remediation mechanism, or provide for such mechanisms through collaborative agreements with other economic operators or organizations or by facilitating recourse to an external expert or body, such as an ombudsman; such mechanisms shall be based on the UN Guiding Principles on Business and Human Rights

Economic operator's management system (Article 49)

The system referred to in Paragraph 1, Point (d), shall be supported by documentation that provides at least the following information:

- (a) A description of the raw material, including its trade name and type
- (b) The name and address of the supplier that supplied the raw material present in the batteries to the economic operator that places the batteries containing the raw material in question on the market
- (c) The country of origin of the raw material and the market transactions from the raw material's extraction to the immediate supplier to the economic operator that places the battery on the market
- (d) The quantities of the raw material present in the battery placed on the market, expressed in percentage or weight
- (e) Third-party verification reports issued by a notified body and concerning the suppliers as referred to in Article 50(3)
- (f) If the reports referred to in Point (e) are not available and where the raw material originates from a conflict-affected and high-risk area, additional information in accordance with the specific recommendations for upstream economic operators, as set out in the Organisation for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, where relevant, such as the mine of origin, locations where the raw material is consolidated, traded and processed, and taxes, fees and royalties are paid

Economic operator's risk management obligations (Article 50)

The economic operator referred to in Article 48(1) shall:

- (a) identify and assess the risk of adverse impacts in its supply chain, associated with the risk categories listed in point 2 of Annex X as part of its management plan, including on the basis of the information provided pursuant to Article 49 and any other relevant information that is either publicly available or provided by stakeholders, by reference to its battery due diligence policy;
- (b) design and implement a strategy to respond to the identified risks to prevent, mitigate and otherwise address adverse impacts by:
 - (i) reporting findings of its risk assessment to its top management level assigned in accordance with Article 49(1), point (c);
 - (ii) adopting risk management measures that are consistent with the internationally recognised due diligence instruments listed in point 4 of Annex X, considering its ability to influence, and where necessary take steps to exert pressure on, suppliers, including their subsidiaries and subcontractors, who can most effectively prevent or mitigate the identified risk;
 - (iii) designing and implementing a risk management plan, monitoring and tracking performance of risk mitigation efforts, reporting back to its top management level assigned in accordance with Article 49(1), point (c), and considering suspending or discontinuing engagement with a supplier or its subsidiary or subcontractor after failed attempts at mitigation, based on relevant contracts and agreements referred to in Article 49(1), point (e);
 - (iv) undertaking additional fact and risk assessments for risks requiring mitigation, or after a change of circumstances.

Third-party verification of battery due diligence policies (Article 51)

The notified body shall carry out third-party verifications. Such third-party verifications shall:

- Cover all activities, processes and systems used by economic operators to fulfill their due diligence obligations in accordance with Articles 49, 50 and 52
- Have as their objective the determination of conformity of the due diligence practices of economic operators placing batteries on the market in accordance with Articles 49, 50 and 52
- Where relevant, include checks on undertakings and gather information from stakeholders
- Identify, for the economic operators that place batteries on the market, areas of potential improvement in relation to their due diligence practices
- Respect the audit principles of independence, competence and accountability as set out in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

The Notified Body shall issue a verification report that records the activities undertaken in accordance with Paragraph 1 of this article and their outcomes. Where the battery due diligence policies referred to in Article 48 fulfil the obligations laid down in Articles 49, 50 and 52, the Notified Body shall issue an approval decision.

Due diligence (Annex X) - international instruments

The internationally recognized due diligence instruments applicable to the due diligence requirements laid down in Chapter VII of this regulation:

- The International Bill of Human Rights, including the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights
- The UN Guiding Principles on Business and Human Rights
- The OECD Guidelines for Multinational Enterprises
- The International Labour Organization (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy
- The OECD Due Diligence Guidance for Responsible Business Conduct
- The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas

Due diligence (Annex X) – raw materials and risk categories

Raw materials:

- Cobalt
- Natural graphite
- Lithium
- Nickel
- Chemical compounds based on the raw materials listed in points above, which are necessary for the manufacturing of the active materials of batteries

Environment, climate and human health, considering direct, induced, indirect and cumulative effects, including:

- Air, including air pollution such as greenhouse gas emissions
- Water, including seabed and marine environment, and including water pollution, water use, water quantities (flooding or droughts) and access to water
- Soil, including soil pollution, soil erosion, land use and land degradation
- Biodiversity, including damage to habitats, wildlife, flora and ecosystems, including ecosystem services
- Hazardous substances
- Noise and vibration
- (vii) Plant safety
- (viii) Energy use
- (ix) Waste and residues

Human rights, labor rights and industrial relations, including:

- (i) Occupational health and safety
- (ii) Child labor
- (iii) Forced labor
- (iv) Discrimination
- (v) Trade union freedoms

Community life, including that of indigenous peoples.

Waste batteries (Article 59)

- Article 59 – Collection of waste portable batteries (45% for now, as in Battery Directive)
- Responsibility of the producer or the PRO: Needs to ensure that all waste batteries, regardless of their nature, chemical composition, condition, brand or origin, are collected separately (of the respective category) in the member state where they make the batteries available on the market for the first time.
- Calculation of collection rate shall be based on Annex XI of the regulation
- Secondary legislation is expected by **Aug. 18, 2027**, and shall include delegated acts to amend the methodology to calculate the collection rate and to amend the collection targets.



Reporting obligations (Article 75)

Producers of **portable** batteries and producers of **LMT** batteries or, where appointed in accordance with Article 57(1), PROs shall report to the competent authority for each calendar year at least the following information according to the chemistry and category of batteries and waste batteries:

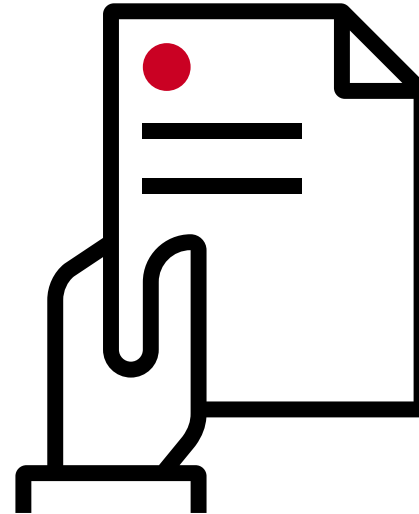
- The number of portable batteries and LMT batteries made available on the market for the first time in the territory of a member state, excluding batteries that have left the territory of that member state in that year before being sold to end users
- The number of portable batteries of general use made available on the market for the first time in the territory of a member state, excluding portable batteries of general use that have left the territory of that member state in that year before being sold to end users
- The number of waste portable batteries and waste LMT batteries collected in accordance with Articles 59 and 60, respectively
- The collection rate reached by the producer or PRO for waste portable batteries and waste LMT batteries
- The number of collected waste portable batteries and waste LMT batteries delivered to permitted facilities for treatment
- The number of collected waste portable batteries and waste LMT batteries exported to third countries for treatment, preparation for reuse or preparation for repurposing
- The number of collected waste portable batteries and waste LMT batteries delivered to permitted facilities for preparation for reuse or preparation for repurposing

Notified body assessment



Notified body: Summary

- Notified body assessment is required and mandatory for Articles 7 and 8 (Carbon Footprint and Recycled Content) and, for companies with net turnover above EUR 40 million, Due Diligence Articles 49, 50 and 52 (all batteries).
- For PORTABLE BATTERIES only due diligence Articles 49, 50, and 52 are mandatory.
- A notified body could be requested on a voluntary basis for other articles (Articles 6-10 and Articles 12-14).
- Effective dates:
 - Due diligence articles – Aug. 18, 2025
- UL Solutions is exploring options to set up a Notified Body in Europe.



UL Solutions global support



We deliver

Our offerings span the environmental, social and governance (ESG) spectrum to increase safety, security and sustainability.

PEOPLE. PLANET. TRUST.



Certification



Environmental Claim Validation



Testing



Auditing and inspection



Software



Data insights



Advisory



Learning and development

Our services through the lens of the MSCI materiality map

Environment

- Carbon emissions
- Product carbon footprint
- Climate change vulnerability
- Financing environmental impact
- Water stress
- Biodiversity and land use
- Raw material sourcing
- Toxic emissions and waste
- Packaging material and waste
- Electronic waste
- Opportunities in clean tech
- Opportunities in green building
- Opportunities in renewable energy

Social

- Labor management
- Health and safety
- Human capital development
- Supply chain labor standards
- Product safety and quality
- Chemical safety
- Consumer financial protection
- Privacy and data security
- Insuring health and demographic risk
- Responsible investment
- Community relations
- Controversial sourcing
- Access to communications
- Access to finance
- Access to health care
- Opportunities in nutrition and health

Governance

- ESG reporting
- Governance
- Ownership and control
- Board
- Pay
- Accounting
- Business ethics
- Tax transparency

*There are many ratings organizations; we are using MSCI here as an example.

Source: MSCI <https://www.msci.com/our-solutions/esg-investing/esg-ratings/materiality-map>

*UL Solutions capabilities



UL Solutions product portfolio



Due diligence



EMC and wireless regulatory testing



Labeling requirements



Bluetooth® and Wi-Fi Alliance qualifications



Global Market Access



Recycled content



Notified body approvals



Product carbon footprint



Battery & Product safety & performance



Restricted substances



Energy efficiency

Locations and employees

Our
14,800+
mission-driven employees work in
40+ countries
around the world.



Global laboratory locations



Questions?

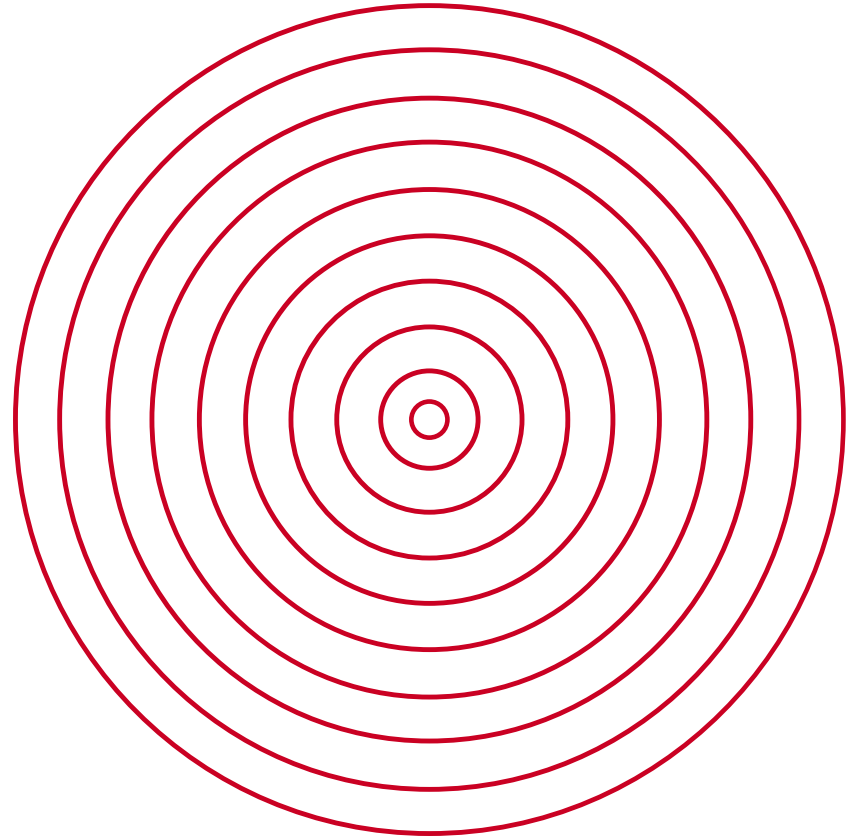
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