New EU Regulation on Batteries and waste batteries: how the legislation changes

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From Directive 2006/66/EC to Regulation (EU) 2023/1542 On 17 August 2023 entered into force Regulation (EU) 2023/1542 (hereinafter also the "Regulation") on batteries and waste batteries, previously covered by Directive 2006/66/EC, implemented in Italy by Legislative Decree 188/2008.The Regulation, which is part of the broader roadmap towards climate neutrality envisaged by year 2050, has the dual objective of guaranteeing legal certainty to all operators involved in the production, trade and recycling of batteries and accumulators, and of reducing the negative environmental impacts deriving from the production and management of related waste, reducing the use of new raw materials and making the re-use of those already available more efficient.

The Regulation shall apply from **18 February 2024** (Art. 96), which is also the deadline for complying with its obligations and requirements[1].

The postponement of the effectiveness of Regulation (EU). 2023/1542 to 18 February 2024 implies that until that date Directive 2006/66/EC (hereinafter also the "Directive") shall remain fully applicable, which, by express provision of the Regulation (Art. 95), shall only be deemed repealed as from **18 August 2025**, with the exception of certain provisions, which will continue to apply also at a later date (see note)[2].

What is the current legislation on the collection and treatment of batteries and accumulators?

It should be remembered that Directive 2006/66/EC was implemented by Legislative Decree 188/2008, which provided for a system of obligations, prohibitions and sanctions, essentially

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[1] Some provisions, however, will only take effect at a later date:
Art. 11, concerning the removability and replaceability of portable batteries and batteries for light transport vehicles, will only become effective as of **18 February 2027**; **Art. 17**, concerning the assessment of compliance with specific requirements under the Regulation (see Arts. 6, 9, 10, 12, 13 and 14), and the whole of Chapter VI, concerning the obligations of certain categories of economic operators (for details see the same Chapter), with effect from **18 August 2024**; **Art. 17 (2)**, from the twelfth month following the first publication of the list of notified bodies referred to in Art. 30 (2); the whole of **Chapter VIII**, concerning the management of waste batteries, starting from **18 August 2025**.

[2] **Art 11** of the Directive, regarding the removal of waste batteries and accumulators, shall apply until **18 February 2027**; **Art. 12 (4) and (5)** of the Directive, regarding minimum recycling efficiency, will remain effective until **31 December 2025**; **Art. 21** of the Directive, regarding labelling, shall apply until **18 August 2026.**

for producers of portable batteries and accumulators, and industrial and automotive accumulators, summarized as follows:

Restrictions on the placing on the market of batteries/accumulators due to the substances they contain

It is prohibited to put on the market batteries or accumulators, including those incorporated into appliances, containing more than 0.0005% of mercury by weight, as well as batteries or accumulators, including portable batteries or accumulators incorporated into appliances, containing more than 0.002% of cadmium by weight.

Certain exceptions were originally provided for, which have gradually been dropped.

Obligation to enrol in the National Register

Producers are obliged to enrol in the National Register kept by the Ministry of the Environment (hereinafter the "Register"), with the consequent issue of an enrolment number to be shown on all sales documentation, including transport documents and invoices.

Obligation to take responsibility for the collection and treatment of waste batteries and accumulators

Producers must take responsibility for managing, on an individual or collective basis, systems for the separate collection, treatment and recycling of waste portable, industrial and automotive batteries and accumulators.

Periodic data reporting obligations

Producers must report annually by 31 March to the Register the data on batteries and accumulators put on the national market in the previous year, broken down into the three above-mentioned macro categories.

Obligations on distributors

Distributors of portable batteries and accumulators are obliged to prominently display, near their sales counters, in clearly legible letters, a notice to the public indicating the possibility of leaving waste portable batteries or accumulators at their sales points, and make available to the public special containers for the free disposal of portable batteries and accumulators.

Labelling requirement for putting batteries/accumulators on the market

Batteries and accumulators may only be put on the market if visibly, legibly and indelibly marked with the specific crossed-out wheelie bin symbol.

Sanctions

Strong sanctions are provided for in Art. 15 of Legislative Decree 188/2008 for putting on the market: batteries and accumulators without the prescribed symbols; in the absence of

the producer's registration with the Chamber of Commerce; batteries and accumulators containing quantities of specific metals exceeding the permitted threshold

What are the key innovations of the new Regulation (EU) 2023/1542?

One of the stated objectives of the new Regulation is to overcome some obvious limitations of Directive 2006/66/EC, which the European Commission, for both economic and environmental impact reasons, considered inadequate: firstly, because it would not guarantee a level playing field for the economic operators involved, given the physiological divergence of national transposition laws; secondly, it would not be able to reduce the risks of energy supply crises in the context of economic and geopolitical crises; lastly, it would be inadequate to mitigate environmental risk as it would not be able to implement a satisfactory circular economy system for energy and the raw materials functional to its production.The first of the above-mentioned limitations has been overcome through the choice of replacing the current Directive 2006/66/EC with a regulation, thus ensuring that the entire battery framework is uniform in detail and mandatory in all member states, without appreciable margins of difference in application from one state to another. Regulation (EU) 2023/1542, therefore, is itself an innovation.

In terms of content, the most important regulatory innovations are related to four specific areas of interest:

1. **sustainability;**
2. **labelling and mandatory information;**
3. **transparency in the procurement of raw materials;**
4. **expansion of the Extended Producer Responsibility (EPR) and collection rates.**

Before examining the areas of interest, let us recall that the Regulation refers exclusively to "batteries" and no longer to "batteries and accumulators". In fact, the Regulation introduces a new unifying definition of what under the Directive were referred to as "batteries" or "accumulators". A battery is now defined as "*any device delivering electrical energy generated by direct conversion of chemical energy, having internal or external storage, and consisting of one or more non-rechargeable or rechargeable battery cells, modules or of packs of them, and includes a battery that has been subject to preparation for re-use, preparation for repurposing, repurposing or remanufacturing*". It should be recalled that, under the Directive, a battery (or accumulator) was "*any source of electrical energy generated by direct conversion of chemical energy and consisting of one or more primary battery cells (non-rechargeable) or consisting of one or more secondary battery cells (rechargeable)".*

1. Sustainability

The goal of sustainability is pursued mainly through the following requirements for producers: (a) the carbon footprint declaration; (b) the recycled content declaration; (c) performance and durability requirements; (d) removability and replaceability requirements.

(a) The carbon footprint

An entirely new element in Regulation (EU) 2023/1542 is the carbon footprint, here concisely defined as the sum of greenhouse gas emissions and greenhouse gas removals in a product system (see Art. 3 (1) (21) of the Regulation). The footprint thus defined must be stated in the so-called "footprint declaration", i.e. a set of information (Art. 7 of the Regulation) that must mandatorily accompany:

- batteries for **electric vehicles**;
- **rechargeable industrial batteries with a capacity greater than 2 kWh**;
- batteries for **light means of transport**.

The declaration shall not apply from the date of entry into force of the Regulation but, depending on the type of battery, according to a timetable detailed in Art. 7 of the Regulation. The declaration will have to be drawn up for each battery model and each manufacturing plant; the footprint will have to be on a clearly visible, clearly legible and indelible label affixed to each battery until 18 February 2027, date from which the obligation to report the declaration by means of a QR Code shall apply.

Batteries which have been put on the market or put into service before undergoing preparation for re-use, preparation for repurposing, repurposing or remanufacturing (for the definition of these operations see Art. 3 (1) (29) to (32) of the Regulation) shall be **excluded from the obligation to make the declaration**.**Indication of recycled content**

Given that certain raw materials related to the energy market (lithium, cobalt and nickel) must be considered 'critical' due to their rarity, the Regulation introduces mandatory minimum levels of recycled materials that batteries must contain.

It has therefore been established that industrial batteries with a capacity of more than 2 kWh, those for electric vehicles and those for motor vehicles containing **cobalt**, **lead**, **lithium** or **nickel**, will have to be accompanied by technical documentation stating that they **contain** the following minimum percentages of material recovered from waste:

- 16% of cobalt, 6% of lithium and 6% of nickel **in the active materials**, i.e. those that react chemically to produce electricity (for an extended definition see Art. 3 (1) (5) of the Regulation);
- 85% lead **in the battery**.

This technical documentation shall be mandatory starting 24 months after the entry into force of the delegated act prescribing the methods for calculating and verifying the percentage of recycled material, and in any case not before **18 August 2028**.

By **18 August 2036**, the minimum percentages of recycled material will be increased to:

- 26% for cobalt, 12% for lithium and 15% for nickel **in active materials**;
- the percentage of lead **in the battery** will not be increased.

(c) Guarantee on performance and durability

Portable batteries for general use, i.e. those having common formats including the so-called 'AA', 'AAA', etc., (see Art. 3 (1) (10) of the Regulation), will have to guarantee minimum **electrochemical performance and minimum durations** which will be specified in a delegated act to be adopted by the Commission by 18 August 2027.

These performance requirements shall be mandatory as from 24 months after the entry into force of the delegated act that will numerically establish the minimum values and, in any case, not before **18 August 2028**.

(d) Removability and replaceability

The Regulation stipulates that any natural or legal person putting on the market products incorporating **portable batteries** (Art. 3 (1) (9) of the Regulation) or **batteries for light means of transport** (Art. 3 (1) (11) of the Regulation) shall ensure that these batteries are **readily removable and replaceable** by the end user at any time throughout the entire lifespan of the product (Art. 11, effective from 18 February 2027).

'**Readily removable'** means a battery that can be removed from a product by the use of commercially available tools, without the need for special tools, while '**readily replaceable**' means a battery that, after being removed from the appliance or light means of transport, can be replaced by another compatible battery without impairing the operation, performance or safety of the appliance or light means of transport.

2. <u>Labelling and mandatory information</u>

Batteries shall be labelled with specific information listed in Annex VI of the Regulation.

Some of this information, especially that displayed in graphic format, will have to comply with specific size and proportion requirements. For the sake of brevity, please refer to Art. 13 (4) (5) and (7) of the Regulation for these criteria.

It can be useful here to recall some of the effective dates envisaged by the European legislator.

No later than 18 months after the entry into force of the implementing act on specific labelling criteria, and in any case no earlier than **18 August 2026**:

- all batteries shall bear a label containing general information;
- rechargeable portable, light means of transport and automotive batteries shall bear a label containing information about their capacity;
- non-rechargeable portable batteries shall bear a label containing information on the minimum average duration when used in specific applications and a label indicating 'non-rechargeable'.

As from **18 August 2025**, **all batteries** shall be marked with the symbol for separate collection of batteries as set out in Part B of Annex VI.

As from **18 February 2027**, all batteries shall be marked with a QR code as set out in Part C of Annex VI of the Regulation.

3. Transparency in the procurement of raw materials

With the stated aim of mitigating the environmental and social impact of the use of raw materials (especially 'critical' raw materials) for battery production as a preferred source of energy, the Regulation has established specific due diligence obligations, which:

- **applies**, on a size basis, to all economic operators that in the financial year preceding the last one had a net turnover of less than EUR 40 million and are not part of a group consisting of parent companies and subsidiaries that, on a consolidated basis, exceeds the EUR 40 million limit;
- **does not apply** to economic operators who put on the market or put into service batteries that have undergone preparation for re-use, preparation for repurposing, repurposing or remanufacturing, if these batteries have already been put on the market or put into service before undergoing these operations (for the definition of these operations see Art. 3 (1) (29) to (32) of the Regulation).As to content, Regulation (EU) 2023/1542 stipulates that it is the duty of the economic operators concerned to identify and assess the risk in their supply chain of adverse effects associated with specific risk categories (including air pollution, air, water and seabed health, biodiversity, etc.), which the Regulation groups together and lists in Annex X (2).

4. Expansion of the Extended Producer Responsibility (EPR) and collection rates.

In view of the collection and recycling results achieved by Directive 2006/66/EC, which the Commission did not deem 'optimal', the Regulation has first of all made the rules concerning waste management and EPR definitively uniform, expanding it to **any type of battery**, including those resulting from preparation for re-use, preparation for repurposing, repurposing or remanufacturing, (for the definition of these operations, see Art. 3 (1) (29) to (32) of the Regulation).

Collection rates: with respect to Directive 2006/66/EC, also the collection targets undergo an increase aimed at greater recycling and this is inspired, as already mentioned, not only by environmental issues but also by the strong concern that the scarcity of raw materials in the territory of the Union may lead to energy crises that cannot be solved (if not through a massive supply from outside the EU).

The collection targets set by Directive 2006/66/EC have therefore been increased and the following collection thresholds have been established:

- for **portable batteries** (see definition in Art. 3 (1) (9) of the Regulation): 45% by 31 December 2023; 63% by 31 December 2027; 73% by 31 December 2030;for batteries for **light means of transport** (see definition in Art. 3 (1) (11) of the Regulation): 51% by 31 December 2028; 61% by 31 December 2031.

What is the battery passport?

One of the most significant innovations of the Regulation is the introduction of a traceability and identification tool called '**battery passport**'.

This is a mandatory electronic registration starting from **18 February 2027**, which will cover every single battery for **light means of transport**, for **electric vehicles** as well as every single **industrial battery with a capacity greater than 2kWh** put on the market or put into service.

When put on the market or put into service, each battery will have to be provided with a new 'passport', which will cease to exist whenever the battery is recycled.