

Batteries become clean

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Europe sets global standards for clean batteries. Batteries are a key technology for climate protection and the energy transition. The EU is pointing the way with new rules on the carbon footprint of batteries and the sustainable extraction of raw materials. In the future, all batteries shall meet minimum social and ecological standards. The looting of the environment, resources and people will be restricted. This is an opportunity to massively increase battery production in Europe and thus increase competitiveness and create jobs. High standards for Europe's battery market contribute to clean mobility 'Made in Europe'.

Consumer rights are significantly strengthened. For the first time, all consumers will have access to information on the service life and charging capacity of the battery. We are proposing a new color code for the quality and service life of household batteries. In this way, consumers will be able to easily identify high-quality batteries in the future.

Electromobility is only a real alternative to combustion engines if electric vehicle batteries are produced and recycled in an environmentally friendly and socially responsible manner. All electric vehicle batteries must be recycled to a high quality. With a recycling obligation, we can reuse raw materials such as cobalt and lithium. Lithium in particular must be fully recycled. Real recycling not only increases the benefits for the environment, but also increases Europe's independence from raw material countries. We should trust European industry to recycle batteries efficiently. Because many companies are already leading the way.

This regulation for green batteries is an opportunity to permanently strengthen the acceptance of electric mobility.

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Summary

- On 10 December 2020, the European Commission presented a legislative proposal for a new EU Batteries Regulation. The new regulation aims to create a **safe and sustainable circular economy for all batteries on the European market**. The proposal for a new regulation now has to be decided by the European Parliament and the Council of Ministers of the Member States before it can come into force. The new rules for batteries will replace the EU battery directive that has been in force since 2006. A transposition into national law is then no longer necessary.
- In the European Parliament, the **Environment Committee** is primarily responsible for the Batteries Regulation. The Italian social democrat Simona Bonafè is the rapporteur for this file. The Internal Market Committee is responsible for voting on the conformity of batteries, i.e. the determination to be carried out by the manufacturers as to whether batteries on the European market comply with the rules set out in the Batteries Regulation.
- The vote in the lead Environment Committee will take place in January 2022, and in February the Parliament will determine its position in plenary for negotiations with the Council.
- For the first time, there will be minimum requirements for **sustainable and socially responsible mining of raw materials** for batteries. The Commission proposes these requirements for batteries in electric vehicles and industrial applications above a certain capacity limit. The rapporteur and we Greens want to extend the due diligence along the supply chain to **all batteries on the European market**. **Here a conflict with the Council of member states is emerging, as the Council** will probably remain at the limited scope of the proposal by the Commission.
- The **carbon footprint** of large batteries must be calculated and communicated in the future. The EU will set a maximum footprint that batteries sold in Europe cannot exceed. With this we set standards for sustainable production all over the world. The Commission proposes rules on the carbon footprint for batteries in electric vehicles and industrial applications above a capacity limit. We Greens are calling for the **carbon footprint to be introduced for all e-cars, light means of transport (e.g. e-bikes and e-scooters) and industrial batteries**. While the rapporteur in Parliament and we Greens **want to introduce the carbon footprint faster** than proposed by the Commission, the Council seems to want to postpone the introduction for several years.
- For the first time there will be special **recycling targets** for **cobalt, nickel, copper, lead and lithium**. The Parliament's rapporteur and we Greens are clearly strengthening the EU Commission's proposal on these goals, especially for lithium.
- The separate collection of device batteries is to be improved. According to the proposal of the Commission, the collection target should be increased from 45% today to 65% in 2025 and 70% in 2030. The **Council plans to postpone the target for 2025 by three years**, while Parliament has so far supported the Commission's approach.
- A new "**battery pass**" will ensure that batteries and raw materials are traceable and recycled. In this way, every large battery can be individually identified (the Commission proposes batteries in electric vehicles and industrial applications above a capacity limit, the Greens want to introduce battery passes for all batteries in electric vehicles, light means of transport and industrial applications).

- **Labels** on device batteries and light means of transport batteries should inform consumers about **service life, charging capacity**, the presence of dangerous substances and safety risks. We Greens suggest **using different colors to label batteries of different quality**. There is no similar labeling in the Council's provisional text.
- The European Parliament rapporteur and we Greens want **to extend performance and durability requirements to other battery** categories. In addition to household and industrial batteries, as proposed by the Commission, these rules should also apply to all portable batteries (e.g. in cell phones and laptops) and light means of transport. Then minimum values would be set, for example for the capacity and number of charging cycles. This indicates a clear conflict with the Council, which remains today with the proposal of the Commission.
- Batteries for electric cars and industrial applications must include a battery management system that informs owners about the health status and expected lifespan of the battery. We Greens also want to introduce this for light means of transport.
- In the future, **portable batteries must be replaceable and repairable** in order to extend the service life of the products in which they are installed. We Greens also want to introduce this for electric vehicles, light means of transport and industrial batteries. Especially for repairs and replacements, **the green amendments are much stronger than those of the Commission and the Council**, since exceptions are no longer applicable and there are to be simplifications for consumers. The social democratic rapporteur has not fully implemented the right to repair either.
- In the future there will be five battery categories: 1. **portable batteries** (household batteries, e.g. typical AA and AAA disposable batteries and their rechargeable alternatives, and batteries in cell phones, laptops, etc); 2. **light means of transport batteries** (eg in e-bikes, e-scooters); 3. **automotive batteries** (for the ignition of vehicles); 4. **industrial batteries** (including private storage batteries for renewable energy) and 5. **electric vehicle batteries**
- **All green amendments in the lead environmental committee** are available here: <https://sven-giegold.de/wp-content/uploads/2021/10/Greens-AMs-ENVI-final.pdf>

Details of the proposed regulation and amendments

Recycling (Article 57 and Annex XII)

In the coming years and decades, the recycling of batteries in particular will be of crucial importance for the environmental performance of electric cars. It is therefore important to set strong targets for the recovery of valuable materials. The Commission proposed setting targets for the efficiency of recycling processes. This is to ensure the recovery of quality materials for the battery industry. These targets are based on the weight of the waste battery and apply both to the battery as a whole and to individual particularly valuable materials (see below).

Separate recycling efficiencies for the total amount of recovered materials should be established for lead-acid batteries, nickel-cadmium batteries and lithium batteries and for all other types of batteries together.

In addition, there should be specific **targets for the recovery of cobalt, copper, lead, lithium and nickel**. These targets are new in comparison to the old Batteries Directive. Experience has shown that important raw materials such as lithium, which are often only found in small quantities in individual battery cells, are generally not recycled today. However, some of the targets proposed by the Commission are far below what is technically feasible today. In China, the official government guidelines in effect since January 1, 2020 recommend recovery rates for cobalt and nickel of 98%. In order for the new Batteries Regulation not to fall behind standards in other parts of the world, the rapporteur suggests raising the **targets**. We Greens support her in this and in addition raise the targets for the recycling of lead batteries (Green Amendments 155-159). We Greens are specifying these requirements to ensure that the **raw materials recovered are of such high quality** that they can be used in new batteries. (Green Amendment 111)

Recycling targets	Proposal by the Commission		Amendments by the rapporteur and the Greens (combined)	
	2026	2030	2026	2030
Cobalt	90%	95%	95%	98%
Copper	90%	95%	95%	98%
Lead	90%	95%	95%	95%
Lithium	35%	70%	70%	90%
nickel	90%	95%	95%	98%

Carbon Footprint (Article 7)

Batteries will be the **first product in Europe to be subject to binding carbon footprint rules**. This will make the manufacture of batteries much cleaner. According to the proposal of the Commission, these rules should apply to electric vehicle batteries and industrial batteries with a capacity of 2 kWh or more.

These rules are implemented in three steps:

1. First, manufacturers only need to calculate the carbon footprint of their batteries. (from July 2024 according to the Commission's proposal)
2. In a second step, labeling will be introduced, with which consumers can easily see whether a battery has a large or a small carbon footprint. (from January 2026 according to the Commission's proposal, the rapporteur wants this as early as January 2025)
3. Finally, all batteries with a carbon footprint above a certain threshold - which has yet to be determined - will be removed from the European market. (from July 2027)

according to the Commission's proposal, we Greens are demanding this from July 2026, Amendment 48)

The rapporteur added light means of transport to this category, but kept the 2 kWh capacity limit. This would mean that a large part of all light means of transport such as e-bikes, and e-scooters would be exempt from the rules. This would lead to unnecessary confusion for consumers. We Greens therefore want to abolish the capacity limit so that the **carbon footprint applies to all electric vehicles, light means of transport and industrial batteries**. (Green Amendment 38)

We Greens are also calling for the Commission to periodically adjust the maximum values for the permissible carbon footprint **until all batteries are produced in a CO2-neutral** manner. This would ensure that batteries are making an ever increasing contribution to the fight against climate change. (Green Amendment 50)

Recycled materials (Article 8)

The particularly relevant raw materials **cobalt, lead, lithium and nickel** should be increasingly recycled. To create an incentive for real recycling, from 2030, batteries should contain a minimum proportion of cobalt (12%), lead (85%), lithium (4%) and nickel (4%) recovered from waste. This proportion will be increased from 2035.

We **Greens are extending this requirement to all batteries that contain cobalt, lead, lithium or nickel** (Green Amendment 51). The same rules should apply to the manufacture of all battery cells. The Commission had proposed that the minimum proportion of recycled materials should only be applied to industrial batteries, electric vehicle batteries and automotive batteries with a capacity of more than 2 kWh.

Requirements for performance and durability (Articles 9 and 10)

From 2027, batteries must meet minimum requirements for, among other things, **capacity, average minimum operating time and service life in cycles**. The Commission is tasked to work out these minimum requirements. The Commission had proposed these requirements only for household batteries and industrial batteries. Like the rapporteur, we Greens want to extend these rules to **all portable batteries (e.g. in cell phones and laptops) and light means of transport (e.g. e-bikes)**. Because it is precisely in these devices that long-life batteries are particularly valuable for consumers and the environment.

Single-use batteries (Article 9)

Disposable batteries that cannot be recharged cause costs for consumers and damage to the environment. Valuable raw materials and hazardous substances end up in household waste far too often. The Commission should therefore examine a step-by-step ban on such batteries. The Commission had proposed to study this ban by 2030. We Greens support the rapporteur in her approach to **bring this review forward to 2025**.

Repair and replacement (Article 11)

Batteries often have a shorter lifespan than the devices in which they are permanently installed (e.g. cell phones and laptops). **Batteries must therefore be replaceable and repairable without affecting the functionality of the device.** Today, this is often not the case. Consumers therefore have to replace cell phones and laptops more frequently. This leads to higher costs and harms the environment.

The proposal for the new Batteries Regulation stipulates that all batteries installed in devices must be exchangeable. We Greens want to extend this to batteries in light means of transport, because particularly e-bikes are often in good condition long after the battery has reached the end of its life. (Green Amendment 60).

The Commission's proposal stipulates that these batteries must be replaceable either by consumers or professional workshops. We want **both consumers and professional workshops** to be able to do this (Green Amendment 61). This must be possible with tools that can be found in every household (Green Amendment 62) and spare parts and instructions should be provided by the manufacturers for at least 10 years (Green Amendment 63 & 64).

For larger batteries - i.e. in electric cars and industrial applications, we Greens want to introduce rules for repairs for the first time. Professional workshops and recycling centers should be able to safely discharge these batteries **and remove and replace important components (e.g. cell modules, control electronics)**. At the same time, batteries in electric cars can be used longer thanks to simplified repairs and recycling is improved, because individual battery cells should be easy to separate from the rest of the battery. We want to give the Commission the task of adapting these requirements, especially with a view to **simplifying the recycling of these large batteries.** (Green Amendment 70)

Labeling (Article 13)

Consumers today can buy a wide variety of different rechargeable and non-rechargeable batteries, but are very poorly informed about the different quality of these batteries. It is practically impossible to tell a good battery from a bad one. We Greens are therefore particularly committed to **improving the quality and service life of rechargeable and non-rechargeable household batteries.** We want to introduce a **new colored label** that in the future will use point consumers **label to point to particularly high-quality and long-lasting batteries.** In doing so, we are strengthening consumer rights and all European quality manufacturers. (Green Amendment 76). Disposable batteries should be marked as such as long as they are still available (Green Amendment 75). For portable batteries and batteries in light means of transport, we Greens want to introduce a label on **the service life in charging cycles and calendar years.** (Green Amendment 74).

Hazardous substances (Article 6)

Batteries contain many substances that can be harmful to people or the environment. We Greens want to avoid hazardous substances wherever possible without restricting innovation and technical innovations. Today there are alternatives to highly toxic lead and cadmium batteries. Even small amounts of these heavy metals pose considerable risks.

- We therefore no longer want to allow highly toxic **lead-acid batteries** in everyday products. The last lead-acid batteries in our households today are found in children's toys. It is precisely there that no lead should be allowed to be used. (Green Amendment 164)
- We want to study the phase-out of **Nickel-cadmium batteries** until 2025. Today they are only a niche product (as portable batteries only allowed in medical products and alarm systems and used in very limited industrial applications), but they are still responsible for 75% of the cadmium used in the EU. There are much better alternatives available for a long time. (Green Amendment 4)
- **Mercury is already** banned in all batteries and should remain so.

By 2025, the European Chemicals Agency is to review all battery technologies, especially lithium-ion but also lead-acid batteries in vehicles, for avoidable hazardous substances and possible alternatives. Lead acid batteries in vehicles are the car battery of the 20th century and are responsible for the use of one million tonnes of highly toxic lead in the EU each year. Lead-free alternatives are already available today. After this examination, the Commission should submit a report to the European Parliament and the Council and, if necessary and appropriately, initiate a ban on dangerous substances. (Green Amendment 37)

Due diligence in the value chain (Article 39)

In the future, **all batteries should meet minimum social and ecological standards**. The looting of the environment, resources and people is thus restricted. In particular in the production of the important **raw materials cobalt, lithium, graphite and nickel** entire ecosystems are often destroyed and workers are badly exploited. To prevent this from happening, battery manufacturers should in the future set up system of controls and transparency along the value chain. In the event of possible risks to people or the environment, manufacturers must develop and implement strategies to prevent or mitigate negative effects. Batteries are one of the first products in the EU to have strict rules along the supply chain.

The Commission has proposed these rules only for large batteries in electric cars and industrial applications. However, we Greens support the rapporteur in extending these requirements to all batteries on the European market (Green Amendment 85). A particular green concern is **to prohibit child labour in the production of batteries**. (Green Amendment 105). At the same time, we want to expand due diligence along the value chain to include more raw materials. The new rules should also apply to copper, iron and bauxite (Green Amendments 150-152)

Collection (Articles 48 & 49)

Today too many portable batteries are not recycled because they are not collected correctly. Only around half of all household batteries today find their way to the right collection points at the end of their life. This quota is **to increase to 70% by 2030**. In order to improve incentives for the separate and safe collection of batteries, the Commission is **to study the introduction of a European deposit system by 2025** (Green Amendment No 109). Such a system would not only serve the environment, it would also enable consumers for the first time to dispose of old batteries correctly across borders.

According to the proposal of the Commission **all electric vehicle and industrial batteries shall be collected** and sent to a recycling process. In future, manufacturers will have to report to the Member States how many of these waste batteries have been collected and recycled each year. Member States must make this information public.

Reuse and reprocessing (Article 59)

The reuse and reprocessing of used batteries should take precedence over recycling. We Greens therefore want all used industrial and electric vehicle **batteries to be assessed before recycling to determine whether they are suitable for reuse or reprocessing**. Batteries should only be recycled if they can no longer be used for a second or third life. (Green Amendment 117)

Export (Article 58)

Used batteries that have to be recycled should only be allowed to be exported outside the EU if it is ensured that the recycling complies with European environmental and occupational health and safety standards. We Greens advocate that **independent auditors have to check every recycler outside the EU** before old batteries from Europe can be recycled there. This is how we want to ensure that our waste does not cause any damage outside of the EU. (Green Amendment 115)

Battery passport (Article 65)

From January 2026, every industrial battery and every electric car battery must have an electronic file ("battery passport"). We Greens also want to use this passport for batteries in light means of transport (Green Amendment 123). Every battery should be traceable with this passport. For example, recyclers should be able to easily obtain information about the chemical composition of the battery.

Market surveillance (Articles 66, 68a, 76)

The new EU Batteries Regulation poses major challenges for manufacturers. Manufacturers who adhere to these ambitious rules must not be undermined by fraudsters.

- We Greens therefore want to ensure that the market surveillance authorities in the Member States carry out sufficient checks - especially on batteries imported and sold online. (Green Amendment 130)
- The Commission should lay down rules for these controls (number of controls, control conditions, etc.). (Green Amendment 131)
- The Commission should set up a **European test authority** that can centrally test batteries from all member states. (Green Amendment 133)
- Consumers should have the opportunity to inform the Commission about batteries that pose a risk to health and safety. (Green Amendment 132)
- In the event that a battery does not comply with European rules, the Member States must set penalties. Unfortunately, these penalties are often not sufficient today to deter fraudsters. We therefore want the Commission to define **criteria for effective,**

proportionate and dissuasive sanctions as well as for **compensation** for consumers. (Green Amendment 139)