

ACEA Position Paper

EU Batteries Regulation: Main automotive priorities



KEY MESSAGES

1. Batteries must become sustainable, high-performing and safe
2. We welcome the European Commission's acknowledgment that specific requirements must be revisited at the time of implementation to determine their adequacy
3. The proposed Batteries Regulation should avoid burdensome double regulation
4. There should be more flexibility to adequately prepare producers and supply chains
5. The proposed Regulation should not hinder innovation as it would slow down the electrification process, thereby jeopardising the EU climate targets
6. The producer needs to have the right to organise the waste management of his product

KEY RECOMMENDATIONS

1. Ensure workable implementation
2. Favour existing international regulations
3. Develop a standardised test for state of health
4. Efficiently use resources to promote circularity in any value chain
5. Clarify roles and responsibilities of producers in extended producer responsibility (EPR)
6. Consider other carbon footprint calculation methodologies
7. Avoid double regulation on repurposing and remanufacturing requirements
8. Revise information and reporting requirements
9. Acknowledge ongoing work on due diligence
10. Use consistent definitions for the collection of waste batteries
11. Consider impact of green public procurement provisions
12. Retain 2kWh threshold for electric vehicle batteries
13. Revise the definition of automotive batteries

INTRODUCTION

The European Automobile Manufacturers' Association (ACEA) fully supports the goal of reaching carbon-neutral road transport by 2050. Automobile manufacturers want to do their part, and support the aims of the European Commission's Green Deal plans.

Addressing the challenges ahead of us as we pave the way to carbon neutrality is a joint responsibility, and from a regulatory point of view the proposed EU Batteries Regulation will play a major role in the decarbonisation of motor vehicles.

However, as ACEA we believe that the current proposal features several unintended shortcomings that risk obstructing the innovation potential of European auto makers, by significantly increasing the number of, and extending the scope of, requirements for batteries – the critical part of an electric vehicle.

This might result in a slowdown of the electrification process, which could in turn jeopardise the EU climate targets. This increase and extension of requirements could also undermine the efforts currently underway to improve the affordability of electrified vehicles for European citizens, and, as a result, have the unintended consequence of preventing a fast renewal of the fleet with electric vehicles.

Our industry is aware of the need for the proposed Regulation to go much further than the previous Directive. However, we believe that some of the new requirements – reporting and marking among others – will have the unfortunate effect of creating unnecessary administrative burden, with little added value for citizens and the environment.

It is our position that the focus of the proposed Regulation should be reworked towards its essential items, in order to prevent unforeseen consequences for the development of new, more efficient batteries in Europe. This would also enable the European Union to take back its leadership position in this strategic area.

KEY RECOMMENDATIONS

1. ENSURE WORKABLE IMPLEMENTATION

The proposed Regulation comes with a very high number of implementing and delegated acts, through which the Commission will define calculation methodologies, parameters and minimum values, among other things. This makes it impossible for the automobile industry to properly evaluate the impact of the proposal for passenger cars, commercial vehicles and buses.

We welcome the Commission's acknowledgment that some specific requirements must be revisited at the time of implementation to determine their adequacy. However, combined with a fragmented and difficult to manage timeline, we believe that these acts will have fundamental and far-reaching impacts on product development and production methods for electric vehicle applications. Some of the proposed changes would require a lead time of three to five years in order for the industry to adopt design changes.

In addition, vehicle development processes for heavy-duty vehicles are much longer than those for passenger cars (approximately four and a half years for passenger cars, versus roughly six years for trucks and buses). Indeed, it would thus take more time to implement new specific regulatory requirements that affect the basic technical vehicle design.

The Batteries Regulation contains many of such technical requirements, which have to be taken into account during the planning, technical implementation, production and introduction to the market of battery electric vehicles. In order to enable the technical implementation of the specific regulatory requirements defined in supplementary acts, longer lead times for heavy-duty vehicles (HDV) are necessary.

Furthermore, automotive and electric vehicle batteries are components that affect the overall type approval process of a vehicle. Considering that any modification to these batteries must be approved by the type approval authority for existing type approvals, we would recommend that the new requirements for automotive and electric vehicle batteries only apply to new type approvals.

Vehicle manufacturers therefore recommend that the timeline is revised to become more workable and that the enforcement of the new delegated and implementing acts is concentrated around a limited number of dates.

2. FAVOUR EXISTING INTERNATIONAL REGULATIONS

Article 10 of the proposed Regulation, combined with Annex IV, introduces new performance and durability requirements for rechargeable industrial batteries and electric vehicle batteries. However, performance and durability requirements of electric vehicle batteries are already regulated at European level by the Global Technical Regulations (GTRs) developed by the United Nations Economic Commission for Europe (UNECE).

More specifically, a new GTR on electrified vehicles defining vehicle-specific durability performance requirements is expected to be adopted in 2021/2022 for passenger cars (M1) and light goods vehicles (N1), and at a later date for buses (M2,

M3) and heavy-duty vehicles (N2, N3). This Global Technical Regulation on batteries will set out more comprehensive tests and should develop requirements that provide more relevant information on battery performance and durability.

There is a clear overlap between the Commission's legislative proposal and the new GTR, which will lead to an unnecessary increase of administrative burden on vehicle producers.

In the spirit of consistency and international harmonisation, also considering the huge amounts of time spent developing this new GTR, we therefore recommend that the proposed Batteries Regulation only refers to the requirements developed at UNECE level for electric vehicle batteries.

3. DEVELOP A STANDARDISED TEST FOR STATE OF HEALTH

Article 14 of the proposed Regulation (complemented by Annex VII) provides that batteries with a capacity over 2 kWh should include a battery management system (BMS) with data on their state of health (SOH) and expected lifetime. It also provides that this data should be accessible for the purpose of reusing or remanufacturing the battery.

However, accessing raw BMS data is not a reliable way of determining the state of health of a battery, considering that the algorithms used differ depending on the type of battery, making direct comparisons impossible. Furthermore, providing access to BMS data also raises issues linked to intellectual property rights, as BMS data typically comprises proprietary information, which cannot be disclosed without limitations.

Vehicle manufacturers are committed to sharing vehicle-generated data with third-party services in a manner that ensures the protection of the vehicle user's personal data, does not endanger the safe and secure functioning of the vehicle, and does not undermine the liability or intellectual property rights of the vehicle manufacturer.

Moreover, we believe that the state of health of a battery cannot be determined using the parameters defined in Annex VII. Most of the criteria are problematic and cannot be reported if the battery is in its application.

The accessible information should be limited to the indicators defined in the future UNECE GTR on in-vehicle battery durability, namely 'state of certified energy' (SOCE), or capacity fading, and 'state of certified range' (SOCR).

This future GTR will address the issue of battery SOH through these two indicators in the following manner:

- In the first GTR phase, SOCE shall be checked against a minimum performance requirement for M1 and M2 vehicles, and SOCE for N1 vehicles and SOCR for M1, M2 and N1 vehicles shall be monitored.
- In the second GTR phase, requirements for SOCE of M1 and M2 will be reviewed and updated (if necessary), and requirements for SOCE of N1 and SOCR for M1, M2 and N1 will be defined.
- Furthermore, in the second GTR phase, it is also planned to discuss and define appropriate solutions for heavy-duty vehicles covering in-vehicle durability.

The reliability of these indicators can be verified by a standardised test procedure (homologation test procedure).

To avoid double regulation, we therefore propose to exempt electric vehicle batteries from the requirements set out in Article 14.

ACEA also recommends that the evaluation of battery SOH is performed on the basis of a standardised methodology to measure performance level rather than providing open access to BMS data.

This will not only protect confidential information and intellectual property, but also better inform economic decisions about repair, reuse and repurposing of batteries.

4. BRING FLEXIBILITY TO RECYCLING REQUIREMENTS

Article 8 of the proposal introduces specific targets for the percentage of recycled content in manufactured batteries, starting from 2030. However, we believe that these requirements could hinder the development of new electromobility innovations due to the technical limitations of recycling processes or potential shortages of the recycled materials necessary to produce new battery cells. Such shortages could also have a negative impact on the global competitiveness of vehicles made in the EU for export.

Furthermore, the current timeline is too ambitious for proper implementation. For instance, it is too early to assess the technical feasibility of a 95% recovery rate for cobalt and nickel. As of today, it is also close to impossible to predict in which quantities a recycled material will be available 15 years from now, when electric vehicle (EV) batteries are returned for recycling purposes – or even later when it includes second-use batteries.

Likewise, it is very difficult to predict what kind of new technologies will be on the market when the recycled material requirements enter into force, and how this will

influence demand for and supply of virgin and recycled materials. Consequently, the overall goal must be to create a level playing field for all market operators and to prevent a shortage in supply of recyclates.

The development of battery technology continues at a fast pace, and the composition of batteries can and will change.

Automobile manufacturers recommend that these new requirements show more flexibility to ensure that the rollout of electromobility is not jeopardised. For instance, the 2030 recycling targets should be defined by 2025 based on an assessment of current recycling technologies.

5. CLARIFY ROLES AND RESPONSIBILITIES OF PRODUCERS IN EPR

Article 47 of the proposed Regulation states that battery producers should have extended producer responsibility (EPR) for their products sold on EU markets. This entails the collection of waste batteries – or taking back for electric vehicle and industrial batteries – as well as their transport, preparation for repurposing and remanufacturing, treatment and recycling. It also requires that producers and producer responsibility organisations have the necessary organisational and financial means to fulfil their EPR obligations.

In order to be able to fulfil future organisational responsibilities, the producer should not only have obligations. We believe that it will be fundamental for the success of the new requirements that the producer will also have the right of precedence to organise the waste management of discarded products for which the producer is responsible. It will be impossible for the producer to fulfil the organisational requirements if the chain of services related to EPR is not managed in cooperation with the respective producer.

With respect to the financial means, we believe that the vast costs incurred by these new requirements would immobilise huge amounts of capital that would then no longer be available for other purposes, such as research and development.

That is why ACEA recommends that the provisions on the guarantees to be provided by producers and producer responsibility organisations should be flexible. For light-duty vehicles, use cases have to be aligned and harmonised with the revision of the End-of-Life Vehicles Directive.

Moreover, second use and re-use of EV and industrial batteries raises a number of questions regarding EPR. The automobile industry calls for a clear definition of what

the responsibility of vehicle manufacturers is when it comes to taking back batteries that they have put on the market for their initial use.

Producers or importers of EV and industrial batteries cannot be held responsible for second-use batteries put on the market by third parties.

The producer of a battery for second-life use should carry product liability and extended producer responsibility. Furthermore, when a battery is used for second-life applications, the producer of the second-life product must install labels and ensure that the new product is clearly identified as a second-life product.

6. CONSIDER OTHER CARBON FOOTPRINT CALCULATION METHODOLOGIES

Article 7 of the proposed Batteries Regulation introduces new requirements on carbon footprint declarations, which would have to accompany all electric vehicle batteries starting on 1 July 2024. The Commission is also tasked with establishing a methodology for the calculation of the carbon footprint (July 2023), battery performance class requirements (December 2024) and maximum life-cycle thresholds (July 2026) via delegated acts.

The automobile industry believes that the proposed delay between the delegated acts and their entry into force is too short for an adequate implementation by producers. We also believe that the Product Environmental Footprint (PEF) calculation methodology (described in Annex II and in the relevant Product Environmental Footprint Category Rules) is insufficient for a proper assessment of the carbon footprint of batteries. ACEA is part of the PEF secretariat to further work on the topic and the results of this working group should be taken into consideration.

ACEA welcomes Life-Cycle Assessments (LCA), as they are important procedures that can help to reduce a motor vehicle's impact on the environment and believes that the studies made should be scientifically sound and compare equivalent systems. At the same time, ACEA also wants to point out the limits of such a methodology and recommends that LCA is kept as a voluntary tool.

Reporting carbon footprint at manufacturing batch level would be unpractical and unmanageable for both manufacturers and authorities. Calculating carbon footprint at manufacturing plant level could be feasible, but it would lead to inequalities in the results depending on the manufacturing location, and thus confuse end consumers.

The auto industry is in favour of calculating the carbon footprint at manufacturer level, in order to obtain an average carbon footprint value for battery models, even if they are produced in different places.

7. AVOID DOUBLE REGULATION ON REPURPOSING AND REMANUFACTURING REQUIREMENTS

Article 59 of the proposed Regulation introduces new requirements related to the repurposing and remanufacturing of electric vehicle batteries, most notably related to independent operators carrying out such operations.

However, operators already get access to all necessary dismantling, repair and handling instructions from the vehicle manufacturer according to the requirements introduced by Regulation 2018/858 on the approval and market surveillance of motor vehicles.

Moreover, mandating the use of standardised tools and processes for the dismantling of batteries could result in unwarranted technology and design restrictions. For the sake of extended producer responsibility, it is also essential that battery repair and reuse remain managed by authorised operators.

ACEA therefore recommends that the Regulation recognises that repair, reuse, remanufacturing and repurposing of traction batteries from electric vehicles must be performed in authorised workshops by trained personnel, considering that there are already established processes in place to provide the necessary advice and instructions for repairs and treatment of end-of-life vehicles.

Furthermore, in order to secure improved circularity, remanufactured and repurposed batteries should generally be exempted from obligations that require collection and back tracing of data and obligations not required when placed on the market for the first time.

8. REVISE INFORMATION AND REPORTING REQUIREMENTS

Article 64 of the proposed Regulation mandates the Commission to set up an electronic exchange system for battery information by 1 January 2026. This system will contain information and data on electric vehicle batteries and rechargeable industrial batteries, divided into publicly-accessible information and information

accessible only to accredited remanufacturers, second-life operators and recyclers. Similar information is referenced in Article 39 with regarding to supply chain due diligence policies for battery traceability.

ACEA believes that these information and reporting requirements could become a major burden for automobile manufacturers and their suppliers, as well as for operators of waste treatment facilities.

In our view, disclosing the required information also breaches existing confidentiality and intellectual property (IP) regulations, while there are already well-established tools and processes such as the International Dismantling Information System (IDIS). This is particularly true for the disclosure of the battery composition (point E of Annex XIII). For the automobile sector, the composition of a battery is incredibly sensitive information and such disclosure would reduce any competition among manufacturers to further improve their battery technology.

We therefore recommend that an assessment of the real information needs of the relevant stakeholders is performed, as well as of the most efficient process for information provision, while considering the existing reporting and information systems.

The requested information should be kept to a minimum and abide by existing confidentiality and IP regulations. Double reporting should be avoided to decrease the administrative burden and minimise the risk of errors.

9. ACKNOWLEDGE ONGOING WORK ON DUE DILIGENCE

Article 39 of the proposal requires economic operators to comply with supply chain due diligence obligations and Article 72 of the new EU Batteries Regulation would regulate supply chain due diligence schemes. These schemes are meant to ensure that raw materials entering the supply chain are responsibly sourced.

However, we believe that these provisions overlap with the ongoing work on an EU-wide system of due diligence for supply chains, which could increase the administrative burden on producers. Moreover, since 2012, vehicle manufacturers have been jointly developing actions to voluntarily improve the social, ethical and environmental performance of automotive supply chains under the umbrella of the Drive Sustainability initiative and the Responsible Minerals Initiative (RMI). These activities already include guidelines and requirements for the responsible sourcing of raw materials for batteries.

Nevertheless, if battery-specific provisions ought to be included in this Regulation, it is important that substance-specific requirements are explicitly mentioned.

Hence, the EU automobile industry recommends that the Chemical Abstracts Service (CAS) Registry numbers of the affected substances are clearly provided in the Regulation. This would ensure that manufacturers could start working on their specific supply chains and adapting them to the new requirements.

Furthermore, we also recommend clear guidance and requirements for an acceptable system of controls and transparency to implement a chain of custody or traceability system that complies with proposed Article 39. Such guidance would avoid proliferation of highly divergent schemes with differing levels and accuracy of traceability.

10. USE CONSISTENT DEFINITIONS FOR THE COLLECTION OF WASTE BATTERIES

Article 49 of the proposed Regulation provides for the collection of waste automotive and electric vehicle batteries and the take-back arrangements of producers.

The automobile industry is ready and prepared to take back EV waste batteries free of charge at collection points provided by the producers. However, while we welcome the flexibility shown in the provision, we believe that the definitions used still lack clarity. A consistent use of 'take back' should mean the compliant acceptance and reception of goods at a location defined by the legally responsible actor. In this context, 'hand over' should be defined as the delivery of waste batteries at the above-mentioned collection point.

ACEA recommends using the definitions proposed above for Article 49, which we believe to be clearer and more consistent.

In compliance with Directive 2000/53/EC and private-sector initiatives, automobile manufacturers already fulfil their extended producer responsibility (EPR) for end-of-life vehicles (ELV). That is the reason why very efficient and well-working collection and recycling processes already have been implemented in many EU member states.

We therefore believe that new collection schemes and private-sector initiatives should not be mandatory.

11. CONSIDER IMPACT OF GREEN PUBLIC PROCUREMENT PROVISIONS

Article 70 of the proposal provides that technical specifications and award criteria for the procurement of products containing batteries by contracting authorities shall be based on Articles 7 to 10 of the Regulation.

However, the lack of a defined framework and excessive reliance on delegated acts for Articles 7 to 10 makes it impossible for the automobile industry to properly evaluate the impact of this provision, which addresses – among other things – buses and trucks.

12. RETAIN 2 KWH THRESHOLD FOR ELECTRIC VEHICLE BATTERIES

Most provisions of the proposed Regulation apply to electric vehicle batteries with a capacity above 2 kWh (eg Article 10 and Article 14). Europe’s automobile manufacturers believe that this threshold should not be amended or removed, in order to ensure that the Regulation remains proportional and effective.

It should be first noted that the end of life of EV batteries is already well-defined and controlled – they are an integral part of the vehicle and are therefore regulated through the End-of-Life Vehicles (ELV) Directive.

Furthermore, the second-life use cases for electric vehicle batteries below 2 kWh are rather limited. Subsequently, the information requirements – as specified in Article 14, for instance – should not be the same as for larger batteries.

Plug-in hybrid electric vehicles (PHEV) and battery electric vehicles (BEV) are equipped with batteries with a capacity above 2 kWh, which cover more than 95%¹ of the installed EV battery capacity on the market. On the other hand, most mild and full hybrid vehicles are equipped with batteries with a capacity below 2 kWh, these batteries only cover less than 5%¹ of the market.

Without this threshold, regulatory costs and administrative burden would be multiplied, with very little added value in return.

In order to ensure that the impact of the Regulation remains reasonable for all economic operators and authorities, we recommend that this threshold is maintained.

¹ Considering 2025 estimates of vehicle fleet mix and battery capacity per powertrain (BEV: 50kWh, PHEV: 12kWh, HEV: 1-2 kWh)

13. REVISE THE DEFINITION OF AUTOMOTIVE BATTERIES

The choice of battery technology is intrinsically linked to the use phase and customer demand. It goes without saying that the battery demands for a passenger car are completely different from those for a heavy-duty vehicle (HDV). To begin with, operators of HDVs use their vehicles as work equipment, which has to comply with completely different criteria when it comes to quality, design, specific demands defined by operational job requirements, and the total cost of ownership.

For example, heavy-duty vehicles such as trucks are designed to provide certain 'hotel functions' to the driver during resting periods, for which the automotive battery in the vehicle is used. However, the definition of 'automotive battery' in the Commission's proposal would disqualify an HDV starter battery from being classified as an 'automotive battery,' which cannot be the intention of the new Regulation.

Hence, ACEA believes that the definition of an 'automotive battery' should be revised to include other supporting functions in the vehicle, in order not to disqualify HDV batteries from the scope of the Regulation.



ABOUT THE EU AUTOMOBILE INDUSTRY

- 12.6 million Europeans work in the auto industry (directly and indirectly), accounting for 6.6% of all EU jobs
- 11.6% of EU manufacturing jobs – some 3.5 million – are in the automotive sector
- Motor vehicles are responsible for €398.4 billion of tax revenue for governments across key European markets
- The automobile industry generates a trade surplus of €76.3 billion for the European Union
- The turnover generated by the auto industry represents more than 8% of the EU's GDP
- Investing €62 billion in R&D per year, automotive is Europe's largest private contributor to innovation, accounting for 33% of the EU total

REPRESENTING EUROPE'S 15 MAJOR CAR, VAN, TRUCK AND BUS MANUFACTURERS

ACEA

European Automobile
Manufacturers' Association
+32 2 732 55 50
info@acea.auto
www.acea.auto

 twitter.com/ACEA_auto

 linkedin.com/company/acea

 youtube.com/c/ACEAauto