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CITA'S PROPOSAL REGARDING THE REGULATION FOR THE BATTERIES OF ELECTRIC VEHICLES



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CITA welcomes the proposed EU regulation, especially with regard to automotive and electric vehicle batteries.

Over the years, batteries have been implemented into vehicles with very little regulation. This has led to issues in the roadworthiness inspections of electric and hybrid vehicles. Binding requirements are necessary to allow the roadworthiness inspection of these batteries. In this sense, particularly the inclusion of EV batteries in Annex V of Regulation COM(2020) 798 final 2020/0353 (COD, the obligation to provide the necessary data for inspection and strict third-party assessment and verification of compliance is crucial. This requires a reliable, transparent, and standardised SoH or access to battery data and conditions.

THE ESSENTIAL ASPECTS FOR DEVELOPING THE REGULATORY FRAMEWORK FOR BATTERIES

1. SHORT TIMEFRAME TO IMPLEMENTATION

EV batteries innovation cycles should not be mistaken with vehicle innovation cycles. In general, CITA considers that it is necessary to act as quickly as possible.

Whereas battery requirements for electric vehicles should first become mandatory when new types are approved, we strongly advise that models already on the market should also be required to comply with these requirements, e.g., by a later obligation in the type approval or from a certain first registration.

Overall, existing or upcoming requirements must be considered before the elaboration of legislation. In particular, for the development of the General Safety Regulation – Regulation (EU) 2019/2144, which sets out vehicle-specific durability performance requirements on electrified vehicles and will come into force on 06.07.2022.

Even when the new GTR for M1 / N1 vehicles is adopted, it will still need to be elaborated as GTRs are documents under the 1998 UN Agreement and as such, they are lacking administrative provisions for type approvals and their mutual recognition. It is essential that regulations for new vehicles already consider that batteries shall be checked in an impartial way and for sovereign purposes. Leaving the monopoly of battery checking to a single stakeholder would create undesirable situations.



2. “DEVELOP A STANDARDISED TEST FOR STATE OF HEALTH”

The product “battery” must be assessable over its entire life cycle in order to achieve maximum economic and environmental benefit. To date, however, there are no reliable, manufacturer-independent benchmarks for SoH assessment. For the assessment of the battery or the determination of its condition, concrete requirements for the processing of battery management system (BMS) data and their interpretation need to be established. To this end, the TÜV Association has defined minimum requirements for the data that should be made available by the vehicle manufacturer on a non-discriminatory basis so that an SoH can be reliably determined¹.

In the case of second-life use, certain data must be known about the condition of the former traction battery, as the whole system must be re-examined in the event of a change of use. Going forward, therefore, it will be necessary to be able to reliably determine an SoH or, if this is not already the case, to have free access to data and conditions relating to batteries or any use of a battery.

BMS shall be beyond any kind of intellectual property. Instead, any data generated in a vehicle belongs to its owner. These data must be available for sovereign activities and, where customers allow, also for use by third parties.

We second that the information on the state of health (SoH) and the expected lifetime should be freely available, at least for sovereign activities, such as roadworthiness inspections. Data used to determine an SoH must be provided in a legally standardised form by vehicle manufacturers to independent organisations on a non-discriminatory basis.

With regard to the use of the next GTRs in EU legislation, kindly refer to the points raised in our reply to point (2).

3. CARBON FOOTPRINT AND BATTERY REQUIREMENTS

The ecological and social footprint of batteries must be as low as possible. The decision on the calculation method should follow this general view. Notified Bodies should be used to assess the compliance of batteries with both safety and sustainability requirements.

As a rule, electric vehicles’ batteries should be re-used as much as possible. If this is no longer possible, they should be recycled.

¹ [https://www.tuev-verband.de/?tx_epxelo_file\[id\]=853023&cHash=f436379baf4114436848214f6ea900eb](https://www.tuev-verband.de/?tx_epxelo_file[id]=853023&cHash=f436379baf4114436848214f6ea900eb)



For road vehicles, recyclability requirements have been used for many years. In the same way, as for the complete vehicle's requirements, battery recyclability will lead over time to recycling-friendly battery construction, better recycling technology and reduced battery waste in general.

As the number of EVs increases, appropriate battery recycling should be developed as soon as possible. A certification requirement should be enforced for both recycling and disposal of EV batteries.

In the sense of the related article 59 of the Regulation, it is necessary to separate the uses linked to the dismantling/ repair and those linked to sovereign activities like the PTL.

4. REVIEW INFORMATION REQUIREMENTS

Several pieces of information in Annex XIII would add to the environmental and safety benefits of SoH and general battery inspection as part of roadworthiness testing.

5. REMOVE THE 2 KWH THRESHOLD FOR ELECTRIC VEHICLE BATTERIES

Also, for vehicles with a battery of less than 2 kWh, the battery plays a significant role in reducing CO₂ in road traffic. Otherwise, these types of vehicles would not have been introduced. In this sense, the 2 kWh threshold is arbitrary and should be reviewed. This is especially true since 95% of all non-PHEV-hybrid vehicles are not covered by this threshold.

For safety and sustainability reasons, it should also be mandatory for automotive and electric vehicle batteries below 2 kWh to have a battery management system and provide information on the state of health and expected life.

6. REVISE THE DEFINITION OF AUTOMOTIVE BATTERIES

Both the definition of (10) 'automotive battery' and (12) 'electric vehicle battery' should be revised to exclude from the regulation, for example, HDV starter batteries in cases where they do not contribute to the traction of the HDV, and to also include batteries that are mainly used for load point shifting (e.g., mild hybrid batteries).



OTHER RECOMMENDATIONS

The supply chain for automotive EV batteries is fraught with unresolved issues of both sociological and ecological nature. Efforts must be made to ensure sustainability and fairness in the way labour is deployed for the mining and extraction of the raw materials, and steps must be taken to sufficiently protect the environment throughout the supply chain. CITA recommends that the EV battery supply chain should be subject to regulatory standards in this respect, and that the batteries should be labelled accordingly.

CONTACT DETAILS

CITA, the International Motor Vehicle Inspection Committee, is the worldwide not-for-profit association of governmental agencies and authorised private companies active on vehicle compliance.

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