

JBCE's feedback on the draft delegated regulation supplementing Regulation (EU) 2023/1542 by establishing the methodology for the calculation and verification of the carbon footprint of electric vehicle batteries

As a cross-sector association with member companies operating in different industries and at different stages of the supply chain (electronics, chemicals, polymers, automotive, HVACR, machinery, semiconductors, wholesale trade, precision instruments, pharmaceuticals, steel, non-ferrous metals, textiles, ceramics and glass products), JBCE welcomes the opportunity to contribute to the draft delegated regulation ¹ act supplementing Regulation (EU) 2023/1542 by establishing the methodology for the calculation and verification of the carbon footprint of electric vehicle batteries.

JBCE would like to contribute to the European Commission's work on batteries and battery waste in order to achieve sustainable development, green mobility, clean energy and climate neutrality. On this basis, we submit our views and suggestions on the Commission's proposed methodology for calculating and verifying the carbon footprint of electric vehicle batteries.

DETAILS

- **FUNCTIONAL UNIT CALCULATION (ANNEX point 2.1):**

JBCE is concerned that using the same number of cycles for Battery Electric Vehicle (BEV)s and non-externally chargeable Hybrid Electric Vehicle (HEV)s is not representative, not technically justified and would artificially create a major problem for mild/full HEV batteries. This is because the draft of the functional unit approach can only be supported if the number of charge cycles for mild/full HEVs is adjusted by allowing mild/full HEVs to fall within the scope of paragraph (iv). Therefore, we would like to propose the following wording for point 2.1 (b) of the Annex.

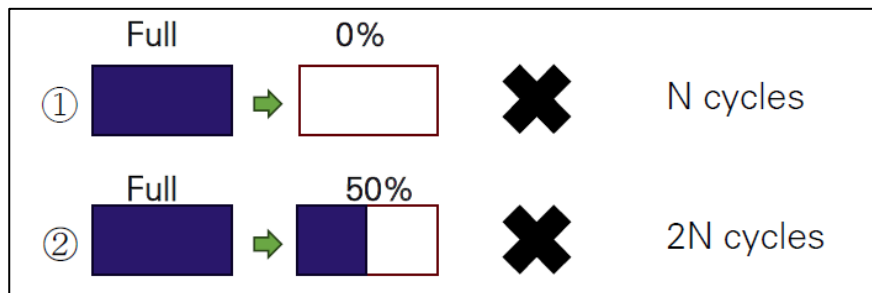
¹ Ref. Ares(2024)3131389 - 29/04/2024

(Proposed text of point 2.1 b of the Annex)

- (b) FE_qC per year is the typical number of full equivalent charge-discharge cycles per year and equals:*
- (i) 60 for batteries to be integrated into **externally chargeable** vehicles belonging to categories M1 and N1 in the meaning of the Regulation (EU) 2018/858 ('light duty vehicles');*
 - (ii) 20 for batteries to be integrated into **externally chargeable** vehicles of category L in the meaning of the Regulation (EU) No. 168/2013 ('motorcycles');*
 - (iii) 250 for batteries to be integrated in **externally chargeable** vehicles of categories M2, M3, N2 and N3 in the meaning of the Regulation (EU) 2018/858 ('medium-duty and heavy-duty vehicles');*
 - (iv) the most appropriate number ~~among the numbers referred to in points i, ii and iii~~ for other electric vehicle batteries, selected by the manufacturer of the battery based on the usage pattern of the vehicle or vehicles the battery is to be integrated into, justified in the public version of the carbon footprint study.*

In fact, with regard to the definition of “energy capacity” in point 2.1 (a) of the Annex, it should be noted that in practice, for the same Electric Vehicle (EV) mileage, lower State of Charge (SoC) discharge windows translate into higher numbers of battery charge/discharge cycles per year. However, as the number of charge/discharge cycles per year is fixed in the text of the regulation, it is therefore technically justified to refer to the “nominal capacity” of the battery independently from the SoC discharge window. For example (see Figure 1), the accumulated output energy of the batteries is the same for ① full capacity battery running N cycles and ② half capacity battery running 2N cycles. However, the current regulation states that the Carbon Footprint (CFP) of ② is twice that of ①. So, we would like to confirm the reason for this requirement.

(Figure 1)



- **DISTRIBUTION CO₂ (ANNEX point 2.2):**

In order to avoid trade disputes and to ensure clear calculation rules, we believe that the scope of distribution (transport CO₂) should only cover up until the battery assembly at the vehicle factory.

In the previous JRC methodology, transport CO₂ was accounted for up to until the battery fitment at the vehicle factory. However, in the draft regulation, the scope is extended to vehicle transport until arrival in the EU, which may cause 2 problems:

1. Products are disadvantaged solely by the fact that they are produced outside of the EU, which could be seen as a barrier to trade. For vehicles imported into the EU, the placing on the market of the battery usually takes place at the moment the vehicle's arrival in the EU.
2. The calculation method is unclear as to how to define the transport CO₂ associated with a battery once it has been integrated into a vehicle (vehicle transport CO₂ x battery/vehicle mass ratio?)

- **CUT-OFF RULES (ANNEX point 2.2.3):**

For practical reasons, and in line with general Life Cycle Assessment (LCA) principles, JBCE believes that the cut-off rule should be defined based on both mass and energy use, not just mass. The current proposed cut-off rule cannot be applied to items that have negligible and difficult to measure energy impacts, such as the amount of electricity used when using a forklift in factory transport. This is not in line with ISO 14044 principles and creates problems in practical application. Therefore, we would like to propose the following wording for point 2.2.3 of the Annex.

(Proposed text for point 2.2.3 of the Annex)

Current text

2.2.3. A general cut-off of 1% in **mass** may be applied to material inputs per system component, by neglecting input and output flows that make up less than 1% to the total mass of the system component.

Proposed text

2.2.3. A general cut-off of 1% in **mass and 1% in energy use** may be applied to material inputs per system component, by neglecting input and output flows that make up less than 3% to the total mass or energy of the system component.

- **Mandatory company-specific process (ANNEX point 2.3.1):**

There are many cases where the manufacturer is also a battery manufacturer, so it is important to protect trade secrets. In addition, when the same product is provided to multiple manufacturers, information about the same product may be provided to multiple notified bodies, which is a heavy burden on battery suppliers. Hence, we would propose adding the following text between (b) and (c).

(Proposed text for point 2.3.1 of the Annex)

(b') supplier of the battery cell, module or pack provide the manufacturer with a company-specific dataset with identification number given by the notified body lodged application from supplier;

By adding this text, we believe that the following content can be achievable.

Where the supplier and the manufacturer communicate the company-specific data in accordance with point (b'), the supplier shall lodge application to the notified body and provide all the information specified in section 3.1.1 to the notified body. The supplier shall also ensure that a market surveillance authority receives such information upon request.

- **CARBON FOOTPRINT of ELECTRICITY USE (ANNEX points 2.3.2, 2.3.3 and 2.4)**

JBCE believes that if the operators have already invested in green electricity and the certificates of their electricity contracts are clear, they should be allowed to use the CFP value in the certificates. If the certificates of these electricity contracts are not recognised and only the national average electricity CFP values are recognised, investment in green electricity may slow down. In order to promote global greening, it would be desirable to

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adopt a methodology that reflects investment in green electricity. We also believe that this idea is in line with what is explained in section 4.4.2 of the Commission Recommendation (EU) 2021/2279.²

ABOUT JBCE

Founded in 1999, Japan Business Council in Europe (JBCE) is a leading European organization representing the interests of over 100 multinational companies of Japanese parentage active in Europe. Our members operate across a wide range of sectors, including information and communication technology, electronics, chemicals, polymers, automotive, HVACR, machinery, semiconductors, wholesale trade, precision instruments, pharmaceuticals, steel, non-ferrous metals, textiles, ceramics and glass products.

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EU Transparency Register: [68368571120-55](https://ec.europa.eu/transparency/regexp1/index.html)

² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021H2279>