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Director General Florika Fink-Hooijer, DG Environment,
Director General Bernard Magenhann, Joint Research Centre,
Aurel Ciobanu-Dordea, Director for Circular Economy, DG Environment,
Mattia Pellegrini, Head of Unit From Waste to Resources, DG Environment,
and the JRC-team drafting the Delegated Act on the calculation and verification methodology of
rates for recycling efficiency and recovery of materials of waste batteries

Subject: Urgent Call to Mandate Recycling of LFP Batteries

18th October 2024, Brussels

Dear Director General Florika Fink-Hooijer, Dear Director General Bernard Magenhann, Dear Decision-Makers and JRC-team.

Following the publication of the draft Delegated Act on the calculation and verification methodology for recycling efficiency and recovery rates for waste batteries, we, as leading environmental NGOs and main EU recycling businesses, write to you to express our serious concerns with the methodology as proposed. We urge you to ensure the effective implementation of the targets as set in the primary Regulation 2023/1542 concerning batteries and waste batteries (Batteries Regulation), notably ensuring that the recycling efficiency target of 65% for lithium-based batteries includes all lithium battery types, including lithium iron phosphate (LFP) batteries.

LFP batteries are gaining momentum in the electric car market. In 2023, 15% of all electric vehicles (EVs) sold in Europe contained LFP batteries, with projections indicating this will rise to 27% in 2024 and further increase to 38% in 2025. By 2030, LFP batteries are expected to constitute more than half (57%) of EV sales, driven by the increasing focus on affordable EVs and emerging technologies like lithium manganese iron phosphate (LMFP). Additionally, new stationary batteries connected to photovoltaic panels are dominated by LFP batteries.<sup>2</sup>

However, the current draft Delegated Act risks creating a loophole whereby the effective recycling of LFP batteries would not be mandated. The draft currently states that materials such as oxygen, carbon, iron, phosphorus, chlorine, and sulphur may be excluded when calculating recycling efficiency. This exclusion risks omitting mandatory recycling for LFP batteries (that contain both iron and phosphorus), creating an uneven playing field between battery chemistries.

While not recycling chlorine and sulphur may result in minor residual waste, neglecting to include iron and phosphorus in the recycling efficiency methodology risks creating large amounts of landfill waste undermining the environmental ambition of the Batteries Regulation.

<sup>&</sup>lt;sup>1</sup> BloombergNEF (2024): Lithium-Ion Batteries: State of the Industry 2024

<sup>&</sup>lt;sup>2</sup> https://en.kyon-energy.de/blog/batterietechnologien-fur-stationare-energiespeichersysteme

Notably, if iron and phosphorus are disposed of as waste, oxygen – bound to phosphorus – and carbon – the anode material – will also become waste.<sup>3</sup> Together, these materials could account for nearly 50% of an end-of-life LFP battery, resulting in significant landfills due to the lack of mandatory recycling accountability. This would fail to implement the primary law's 65% recycling efficiency target and lead to an environmentally sub-optimal treatment of LFP batteries on the EU market.

Investments in LFP battery recycling technologies are already underway, including projects supported by European funding.<sup>4</sup> China, the leader in this field, has already established operational LFP recycling technologies.<sup>5</sup> As demonstrated by the progress in lithium recycling, regulatory frameworks are key drivers of innovation and the development of large-scale recycling solutions. A strong regulatory push is therefore crucial to further accelerate advancements in LFP recycling technologies.

As civil society organisations and businesses we urge you to close this loophole. We call on you to amend the draft delegated act to **ensure that phosphorus and iron are included in the mandatory calculation of recycling efficiency** by deleting phosphorus and iron from paragraph 5 in Chapter 2 concerning the method for calculating the rate of recycling efficiency for waste batteries. We hope you take this on board as you finalise the delegated act.

We remain at your disposal for any further information.

Sincerely,

ACCUREC Recycling GmbH

AVERE - The European Association for Electromobility
Deutsche Umwelthilfe (DUH)

Environmental Coalition on Standards (ECOS)

European Battery Recycling Association (EBRA)

European Environmental Bureau (EEB)

Transport & Environment (T&E)

<sup>&</sup>lt;sup>3</sup> Each kilogram of phosphorus disposed will generate an additional 2 kg of oxygen in landfills.

<sup>&</sup>lt;sup>4</sup> See announced LFP battery recycling plant by <u>ABEE</u> and <u>Joint research and development project</u> by ACROBAT, VITO, ENEA, Fraunhofer Institute and ACCUREC

<sup>&</sup>lt;sup>5</sup>https://rhomotion.com/news/lfp-battery-recycling-the-challenges-and-opportunities-industry-update/#:~:text=China%2 0is%20a%20dominant%20force,than%20those%20in%20other%20regions













