To: **Vice-President Maroš Šefčovič**
Commissioner Elżbieta Bieńkowska
European Commission
Rue de la Loi 200 - 1049 Brussels

Subject: comments on the preparatory study on Ecodesign and Energy Labelling of batteries

Brussels, 6 March 2019

Dear Vice-President Šefčovič, dear Commissioner Bieńkowska,

Batteries will be a backbone of EU decarbonisation efforts, but their fast and unmanaged uptake may also represent a challenge in terms of resource sustainability and CO_2 emissions as their production ramps up (e.g. for electric vehicles). Ensuring Europe leads in sustainable battery production is one of the priorities of the EU Battery Action Plan[1], with the Ecodesign Directive being one of the legal instruments that could help mitigate impacts from batteries on the environment. The ongoing preparatory study, on which future legal requirements could be based, should be as thorough and accurate as possible, and address the correct issues. Notably, the priority actions identified by the European Battery Alliance[2] stakeholders as regards sustainable batteries must be included in the upcoming proposal for an Ecodesign Regulation. In this respect, ECOS and Transport & Environment wish to highlight several points that we think should be explored further or reassessed in the current Commission deliberations.

Scope of the preparatory study

Include EV batteries

Electric Vehicle (EV) batteries are the key products to be addressed in this study (alongside those used in storage and industrial applications); the legal analysis which will determine whether these are included or not in the scope of the Ecodesign Directive should in no case be used as grounds to exclude them from the scope of this study. Should it be assessed that they cannot be regulated through Ecodesign, we ask the study team to formulate alternative policy options in order to reach an equivalent result.

Include battery electric buses

Battery electric buses are not currently considered in the scope of this study (especially in Task 2) even though Li-ion batteries demand for electric buses is very significant: 12.5 GWh in 2017[3]. The new Clean

[1] European Commission, https://eur-lex.europa.eu/resource.html?uri=cellar:0e8b694e-59b5-11e8-ab41-01aa75ed71a1.0003.02/DOC_3&format=PDF
[2] EBA, https://ec.europa.eu/growth/industry/policy/european-battery-alliance_en
[3] https://c40-production-images.s3.amazonaws.com/other_uploads/images/1726_BNEF_C40_Electric_buses_in_cities_FINAL_APPROVED_%282%29.original.pdf?1523363881

Vehicles Directive[4] will mandate half of all buses publicly procured in Europe by 2025 to be "clean", which will be largely based on battery technology. In the near future, European cities will procure very large numbers of electric buses, creating a large market in Europe. Furthermore, electric bus batteries have specific requirements and specifications compared to passenger cars due to very different usage scenarios. This is currently overlooked in the preparatory study.

Drop the energy density approach

The study currently leaves out of scope any battery that has an energy density lower than 100Wh/kg. We believe that this threshold is not appropriate in that it excludes technologies such as NiMH or Ni-Cd that are very common in the industry. In general, we believe that setting such a threshold could discriminate against batteries that are used for the same applications (i.e. different battery models using the same chemistry and used in the same application but with slightly different energy density) and incentivise manufacturers to circumvent the requirements by producing batteries with an energy density lower than 100kWh/kg. Instead, we would recommend opting for a scope oriented around the applications of the batteries.

Battery manufacturing

Carbon & environmental impact of battery manufacturing

As rightly identified by the European Battery Alliance, sustainability requirements for battery supply chain and cell manufacturing would be a competitive advantage to EU industry. As a minimum, the Ecodesign regulation should set accurate carbon accounting of battery materials and cells production, including manufacturing of key components such as cathodes, anodes and electrolytes. This should be location-specific and directly linked to the electricity supply used for the production purposes.

In addition, Task 5 clearly demonstrates that the largest environmental impacts from battery production and use occur at the stage of resource mining and manufacturing of battery materials. Focusing on the carbon footprint is important and should be kept, but on its own this would not deal with some of the main concerns associated with batteries, and thus not lead to sustainable battery production in Europe. The Commission should as a minimum investigate further how regulatory elements on mining practices and use of hazardous substances in manufacturing battery materials can be incorporated into this legislative tool. The wider social and human rights impact of raw materials sourcing should further be addressed via EU legislation as suggested in Commission's recent consultation[5] on sustainable batteries.

Transparent value chain of battery manufacturing

Re-use, re-purposing or recycling of batteries introduces a new level of complexity in the value chain of battery manufacturing. Currently, there is a lack of traceability along the value chain which can cause risks of environmental leakage (e.g. illegally shipped batteries), incorrect reporting and other negative externalities. The study should investigate these issues and suggest adequate measures, such as a unique identification number for each battery module placed on the EU market.

[4] European Commission, https://ec.europa.eu/transport/themes/urban/vehicles/directive_en
[5] European Commission, https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-5951053_en

Durability and longer life of EV batteries

Increasing the durability of batteries is instrumental to reducing the environmental impact of their production, and extending the lifetime of EV batteries, whether in primary or in secondary applications such as residential storage, should be part of the Ecodesign requirements. The preparatory study should take stock of this objective and refer to second-life batteries as comprehensively as possible, thus deepening the analysis for the secondary uses in terms of market growth, technologies, users, etc. Specific Ecodesign requirements should be foreseen such as the interoperability of the Battery Management System (BMS), access to robust and accurate information on battery performance such as battery state of health (SoH), charging and use history, or the ability to safely and efficiently dismantle the EV batteries for re-use and repurposing.

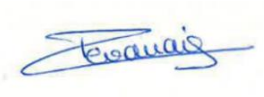
End of life of EV batteries

Defining a threshold for the state of health (SoH) under which the batteries are considered to have reached their end of life goes against the overall objective to extend the lifetime of batteries and the diversity of first life battery applications. The proposed threshold of 80% does not rely on strong evidence or on a regulatory text, and it is not even recognised by all EV manufacturers. The same goes for the proposed 50% and 70% thresholds for residential and commercial ESS. The preparatory study should abstain from defining an end-of-life threshold altogether.

We remain at your disposal should you need any additional information on our views.

Sincerely,

Laura Degallaix
ECOS Director



William Todts
T&E Executive Director

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