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Environmental communication about batteries: RECHARGE recommendations for the Product Environmental Footprint usage.

Introduction

The proliferation of environment labels is creating European consumers confusion and distrust when it comes to the use of the various communicated information for a product purchasing decision. It is recognized that the lack of reference and harmonization is easing the temptation of “green washing”. In October 2013, the European Commission has launched the PEF/OEF project (Product/organization Environmental Footprint) in order to define a reference methodology for environmental impact assessment, based on the life cycle analysis approach. RECHARGE has successfully conducted the pilot for batteries, in parallel with more than 20 other industry sectors, and published the batteries PEFCR (Product Environmental Footprint Category Rules). Following the project final conference in April 2018, the Commission will now analyze the learning of this phase and propose possible regulatory usages of this tool in conjunction with environmental regulation revision (ECOLABEL Directive XXX, ECODESIGN Directive YY, etc...).

RECHARGE would like to review the key learnings from this pilot phase and suggest some proposals for a further development and usage of the PEF for batteries.

1. PEF benefit

The 4 years pilot exercise has allowed for the creation of a harmonized and detailed approach for the methodology. The clarification of the rules (PEFCR) for a PEF study contributes to a more transparent environmental impact assessment, beneficial for a fair regulation.

In practice, RECHARGE has contributed to the definition of meaningful rules for specifying representative products and boundaries of the PEF studies, practical approaches for the use phase definition, etc...

2. PEF limitations

Unfortunately, number of limitations have been identified during the process, both due to the complexity of the PEF methodology, and to the complexity of the studied product (i.e lithium-ion batteries often have number of components, including electronic parts). For example:

- Data sets available for the study are incomplete: some missing data are replaced by “proxy”s, complex components like electronics are simplified in “secondary datasets”, introducing significant changes in the calculated environmental impacts.
- The models used for the calculation of the environmental impacts are of uneven quality, with some still containing inconsistencies. For example, the models proposed for the calculation of the environmental impacts on human health have finally not been recognized of a sufficient quality level for inclusion in the PEF.

All these uncertainties, approximations and data gaps are reducing the benefit of the study.

3. PEF usage recommendations

At least three characteristics are sought for the usage of an environmental assessment of a product: precision, differentiation and auditability.

The Batteries PEFCR is not providing yet a high level of compliance with these 3 criteria:

- The precision of the results is reduced by the usage of “proxy”s. In addition, the assessment of the results uncertainties are not yet defined in the PEFCR.
- Differentiation between products may be difficult, due to lack of uncertainties assessment. In addition, the large number of data gaps replaced by “proxy”s may generate unintentional and unrealistic differentiations between products.
- The auditability of the PEF has been a subject of concern during the pilot phase, and significant guidance has been provided in the PEFCR . Nevertheless, the complexity of the tool and the large number of the batteries components makes it difficult to realize a complete audit of a PEF calculation and warranty transparency.

Based on these findings, RECHARGE recommends to avoid the usage of the PEF for public benchmark of batteries, or related communication purposes.

Recognizing the value of the PEF pilot, and the possible future improvements, RECHARGE supports the usage of the PEF in case an environmental assessment is required, internally to a company or in a B2B relation, and for scientific or technical developments.

About RECHARGE

RECHARGE aisbl is the Advanced Rechargeable and Lithium Battery Association. RECHARGE is representing the specific interests of the Rechargeable Battery Industry in Europe. RECHARGE’s mission is to promote the value of advanced rechargeable batteries through their life cycle. RECHARGE’s Membership includes



ADVANCED RECHARGEABLE & LITHIUM BATTERIES ASSOCIATION

Rechargeable Battery Manufacturers, Original Equipment Manufacturers, Rechargeable Batteries Recyclers and Raw materials suppliers to the Battery Industry.