Product Carbon Footprint for EV BY2023

1. Smappee's mission

To create a world where everyone relies exclusively on renewable, locally generated, and affordable energy, ensuring sustainable living for future generations.

2. Purpose of the Product Carbon Footprint Report

Smappee is a purpose-driven organisation. Our ESG Strategy is built on 3 core pillars:

- We strive for carbon neutrality as a team and as a partner.
- We design our products and services with sustainability at their core.
- We foster innovation and transparency in all our activities.

These principles are part of Smappee's DNA, embedded throughout the entire Smappee organisation, and aim to support our partners in their ESG pursuits.

The Product Carbon Footprint plays a crucial role in contributing to the 1st pillar of Smappee's ESG strategy. It enables Smappee to measure, manage, and mitigate its environmental impact, while supporting product and process innovation, fostering transparency and strengthening partnerships – all contributing to Smappee's overarching mission.

3. Calculation & Reporting Methodology

The Product Carbon Footprint for Smappee's EV Product line is prepared in accordance with the Greenhouse Gas (GHG) Protocol. It starts from Smappee's Carbon Footprint Calculation for BY2023, which details emissions across all relevant scopes as defined by the GHG Protocol. The organisational boundaries are defined using the Operational Control approach, which ensures that all emissions from operations under Smappee's control are accounted for within the scope of this report. We have employed the following methodologies and data sources to calculate our GHG emissions:

- Activity data collection from operational records and utility bills
- Emission factors sourced from ADEME and Ecoinvent databases
- Estimation techniques for unavailable data, in line with GHG Protocol guidelines

The Product Carbon Footprint for Smappee's EV Product line is generated with Ecoinvent, a widely used life cycle inventory (LCI) database, as its reference. This database provides detailed data on the environmental impacts associated with various products and services throughout their entire life cycle — from raw material extraction, production, and use to disposal or recycling.

We use the Ecoinvent Product Type "Market for Charger, Electric Passenger Car" for comparison purposes (Ecoinvent Update 3.10). It defines the product activity "starting at the gate of the activities that produce 'charger, electric passenger car', within the geography of Global. From cradle, i.e. including all upstream activities. This activity ends with the supply of charger, electric passenger car', to the consumers of this product. Transport or losses are considered irrelevant for this product.".

4. Product Carbon Footprint EV Product Line BY2023

The Product Carbon Footprint of Smappee's EV Product line for BY2023 is a total of 26.5 kg CO2e per kg charger, versus the Ecoinvent Product Emissions (total) for an EV charger of 29.2 kg CO2e per kg charger. Put differently: the Smappee EV Product line implies on average 2.7 kg CO2e per kg charger less than the Ecoinvent average product type "market for charger, electric passenger car".

5. Carbon Reduction Target

Smappee has pledged to reach Net Zero by 2030 at the latest. This Net Zero target implies that all greenhouse gas emissions generated by Smappee will be counterbalanced by an equivalent amount of removal or offsetting, resulting in a net zero emission balance across all emission scopes.

The carbon reduction plan is drafted and will be rolled out in 2 major phases across all departments:

- Phase 1: Mid 2024 – 2025:
  Implementing quick wins, including among others:
  - Scope 1: transition to EV-only company fleet
  - Scope 2: transition to 100% green electricity supply
  - Scope 3: switch to sea freight for all inbound, non-EU originated transport
  - Value chain analysis, including supplier review and Product Life Cycle Assessment
- Phase 2: 2026 – 2028:
  Implementing structural changes, including among others:
  - Updated raw materials sourcing, overhaul waste management and recycling processes and alternative product packaging

6. Disclaimer

The Product Carbon Footprint data presented in this report has been compiled based on current best practices, available data, and standard methodologies, including recognized life cycle assessment (LCA) techniques. However, due to the complexity of Carbon Footprint calculations and the reliance on various data sources, including third-party databases and assumptions, there may be uncertainties or inaccuracies inherent in the reported figures. Variations in data quality, changes in operational practices, regional differences, and the dynamic nature of environmental factors can influence the accuracy of the reported Product Carbon Footprint. As such, the figures provided should be considered as estimates rather than exact measurements.

This report is intended to offer a general understanding of the Product Carbon Footprint and should not be used as the sole basis for critical decision-making. Stakeholders are encouraged to consider this information within the context of its limitations and to seek further verification or perform additional analysis where precision is essential. Continuous improvements in methodologies and data accuracy are anticipated, and updates to this report may be necessary as new information becomes available.

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