carboncalcpcf.com

Product Carbon Footprint Dashboard for vqeuqyknfu

Company: kvglznonsh | Consultant: pfpuxggrtw

Total PCF: 22.06 kgCO2e/unit

Key Performance Indicators

TOTAL CARBON FOOTPRINT

22.06 kgCO2e

CARBON INTENSITY (PER UNIT)

22.06 kgCO2e

TOP MATERIAL HOTSPOT

Aluminum Frame

PRIMARY EMISSION SCOPE

Scope 3 (Use Phase)

RENEWABLE ENERGY USED (PRODUCTION)

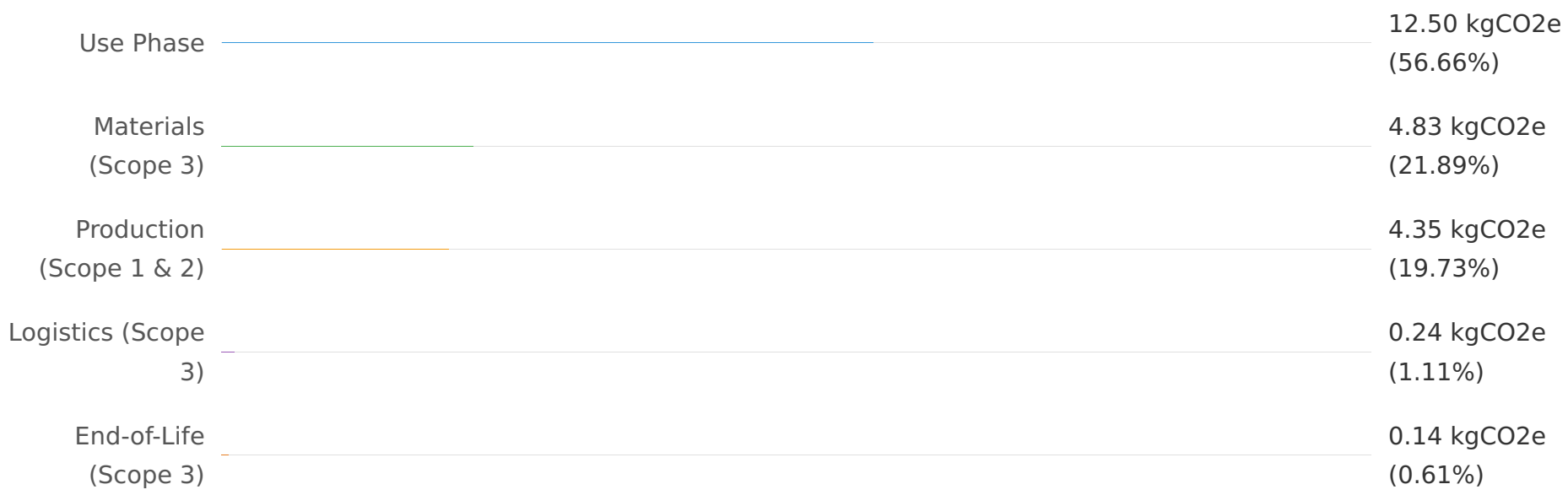
30%

PRODUCT LIFESPAN

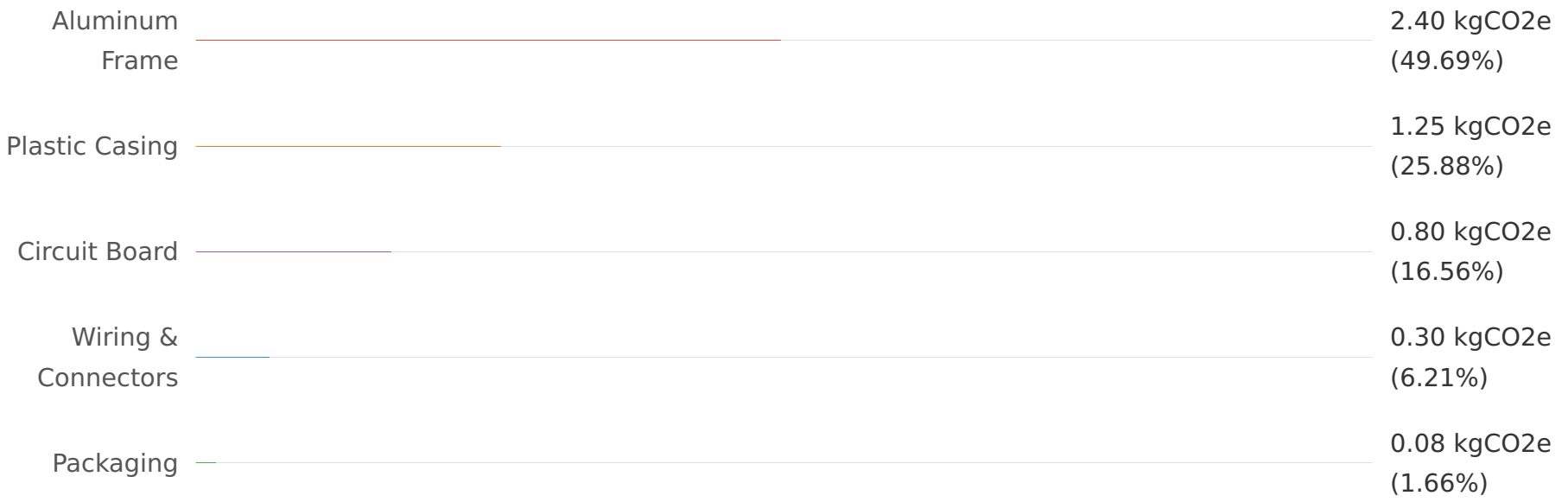
5 years

Carbon Footprint Breakdown

Lifecycle Stage Emissions



Material Carbon Impact



Highlights & Insights

Key Findings from the Analysis

- The **Use Phase (Scope 3, Category 11)** is the single largest contributor to the product's carbon footprint, accounting for approximately 56.7% of total emissions. This indicates significant opportunities for reduction through energy-efficient product design.
- **Purchased Goods and Services (Scope 3, Category 1)**, primarily materials, represent the second largest hotspot at 21.9% of the total footprint. The Aluminum Frame alone contributes almost 50% of the material-related emissions, making it a critical area for sustainable sourcing or material substitution.
- **Manufacturing (Scope 2)** emissions from purchased electricity in China are substantial, contributing nearly 19.7% of the total footprint. Increasing renewable energy procurement at the production facility can significantly reduce this impact.

Recommendations & Action Plan

Strategic Steps for Carbon Footprint Reduction

- **Optimize Product Use Phase:** Redesign 'vqeuqyknfu' for improved energy efficiency during its operational lifespan. Explore low-power modes, smarter energy management features, or consider integrating renewable energy solutions for the user.
- **Sustainable Material Sourcing:** Investigate alternative materials for the Aluminum Frame with lower embodied carbon, or work with suppliers to source low-carbon aluminum. Explore lightweighting opportunities and increased recycled content for all materials.
- **Enhance Manufacturing Energy Mix:** Accelerate the transition to 100% renewable energy for the manufacturing facility in China, either through direct generation, Power Purchase Agreements (PPAs), or high-quality renewable energy certificates.
- **Improve End-of-Life Systems:** Further leverage and expand the existing "Yes, through partner network" circular/take-back programs to ensure a higher actual recycling rate and explore repairability and refurbishment options.

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