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CARBONCALPCF.COM

EcoWidget Pro (ufjrfwdeje)

Product Carbon Footprint Analysis by EcoSolutions Inc. (gllfnovdko)

Total Product Carbon Footprint

15.64 kg CO₂e

Product Identifier

ufjrfwdeje

EcoWidget Pro

Functional Unit

1.0 unit

Analysis per single product unit

Top Material Hotspot

Aluminum Casing

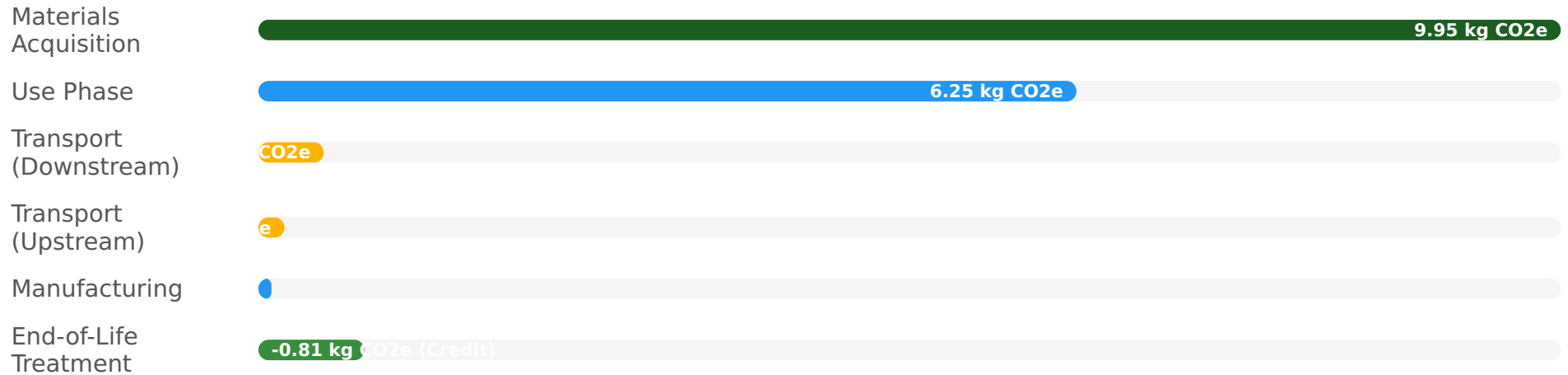
6.00 kg CO₂e

Primary Emission Scope

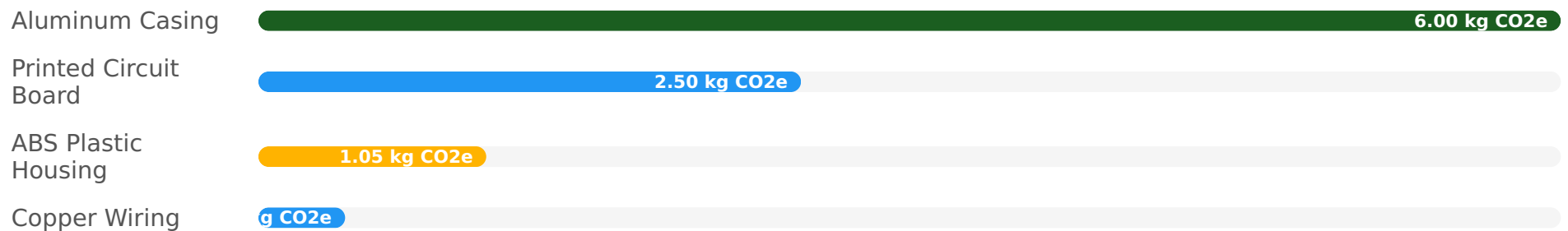
Scope 3

15.59 kg CO₂e (Value Chain)

Emissions by Lifecycle Stage



Material Composition Carbon Impact



Key Emission Hotspots

- Materials Acquisition & Pre-processing is the largest contributor, accounting for 63.6% of the total PCF, with aluminum casing being a significant factor.
- The product's Use Phase contributes significantly, making up 40.0% of the total PCF due to energy consumption over its 5-year lifespan.
- End-of-Life Treatment acts as a net carbon sink, providing a credit of -5.2% to the total PCF, thanks to high recyclability and advanced recovery programs.

Recommendations for Reduction

- **Material Decarbonization:** Explore lower-carbon alternatives for high-impact materials and increase recycled content beyond current levels.
- **Energy Efficiency in Use:** Implement design improvements to reduce the EcoWidget Pro's energy consumption during its operational life.
- **Supplier Engagement:** Engage with key suppliers to gather primary data on their operational emissions and energy mixes.
- **Circular Economy Initiatives:** Continue to develop and expand the "Advanced material recovery and product refurbishment program" to maximize material recovery and reuse.