

LIFE CYCLE ASSESSMENT (LCA) SERVICES

Measuring Your Product's True Environmental Footprint

As the demand for transparent, quantifiable environmental data surges, understanding the precise carbon footprint of your products is no longer optional. Claigan's comprehensive Life Cycle Assessment (LCA) services break down the complexities of measuring emissions so you can see your Product Carbon Footprint (PCF) and make informed, sustainable design decisions and maintain global compliance.

WHAT IS A LIFE CYCLE ASSESSMENT?

An LCA is a quantitative assessment of the environmental impact caused by an individual product across every state of its life. Claigan's LCA methodology strictly follows internationally recognized standards ISO 14040 and ISO 14044 to ensure consistency, transparency, and scientific credibility.

We examine every critical stage, including:

- Raw material extraction and refinement.
- Complex product manufacturing.
- Distribution and transportation networks.
- Product use, maintenance, and end-of-life disposal.

UNDERSTANDING THE CO₂ EMISSIONS ASSOCIATED WITH YOUR PRODUCT GIVES YOU A MEASURABLE VIEW OF ITS ENVIRONMENTAL IMPACT.

UNDERSTANDING YOUR PRODUCT'S CARBON FOOTPRINT

A PCF is the total amount of greenhouse gasses (GHG) emitted by one product across its entire lifecycle. Expressed in kilograms of carbon dioxide equivalent (kg CO₂e) per unit, Claigan's PCF methodology strictly adheres to internationally recognized standards like ISO 14067.

We calculate your PCF by tracking its total energy use, fuel consumption, and direct GHG emissions.

Claigan's PCFs go hand-in-hand with our LCA service and help you meet your climate goals.

CLAIGAN'S EXPERT LCA METHODOLOGY

Utilizing our experience as an **ISO 17025 accredited laboratory**, Claigan's LCA services combine advanced material testing with researched CO₂ equivalent values. We physically break down products into individual components and apply scientifically supported emissions data to deliver actionable, product-specific insights.



WHY ARE SHAREHOLDERS DEMANDING LCAs?

Investors are increasingly prioritizing sustainability and long-term risk management in their financial decisions. By requesting an LCA, shareholders are looking to verify your company's proactive environmental risk management.

An LCA delivers immediate business value through:

→Cost Reduction:

identifying areas of high energy consumption across product life cycle.

→Regulatory

Compliance: preparing for emerging GHG disclosure requirements.

California bill SB 253 requires scope 3 GHG reporting in November 2027

→ESG Verification:

demonstrating competitiveness and alignment with sustainability commitments.

GET IN TOUCH

