

# C3 AI Sustainability for Manufacturing

## AI-Powered Sustainability for Discrete and Process Manufacturing

C3 AI® Sustainability for Manufacturing is the only AI-first software application that enables end-to-end sustainability management for manufacturers. C3 AI Sustainability for Manufacturing provides comprehensive energy, water, waste, and greenhouse gas emissions monitoring and utilizes machine learning and advanced AI techniques to meet ambitious sustainability goals within plants and across the enterprise. C3 AI Sustainability for Manufacturing helps operators and executives gain global near real-time visibility across Scope 1, 2, and 3 emissions, reduce emissions across the organization and the supply chain, and accelerate the organization’s energy and zero-carbon transition.

C3 AI Sustainability for Manufacturing integrates all internal and external energy, emissions, and operational data — including equipment and line sensors, Industrial Control Systems and Historians, ERP and BMS Systems, Work Order Management Systems, and up-to-date emission factor libraries — and offers rapid configuration across a broad range of manufacturing assets and processes. C3 AI Sustainability for Manufacturing leverages AI algorithms to model complex operations, detect anomalies, identify emission reduction opportunities, define sustainability goals, and help operators and executives implement strategies to achieve their sustainability objectives.

C3 AI Sustainability for Manufacturing monitors and analyzes direct emissions and those from purchased energy (Scopes 1 and 2), as well as indirect emissions accumulated across the supply chain and downstream (Scope 3).

### Feature Summary

- **Comprehensive Emissions and Resource Monitoring** — Monitor and analyze all energy, waste, and water data in near real-time at the levels of equipment, equipment lines, and products
- **Scope 1, 2, and 3 Emissions** — Track, analyze, and report Scopes 1, 2, and 3 greenhouse gas emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs) across the collective operational footprint
- **Product Carbon Footprint** — Model emissions and calculate emission factors at individual product and SKU level in near real-time
- **Reporting and Transparency** — Publish and share all emissions and ESG data across key stakeholder groups including customers, shareholders, and employees via REST APIs
- **Virtual Diagnostics** — Leverage machine learning and AI to identify emissions reduction opportunities and recommend actions to achieve sustainability goals
- **Goal Setting** — Set and track sustainability goals across the enterprise including BUs, geographies, facilities, divisions, and assets
- **Automated Efficiency Benchmarking** — Continuously benchmark equipment, equipment lines, configurations, and product processes both within and across plants
- **Renewables Optimization** — Manage and optimize renewable energy supply across PPAs (power purchase agreements), RECs (renewable energy certificates), and carbon offsets
- **Anomaly Detection** — Utilize AI algorithms to detect and address operational, data, and emissions anomalies



Figure 1. C3 AI Sustainability for Manufacturing home page provides a unified view of energy, emissions, waste, and water within and across plants. Pre-configured visualizations facilitate identifying high-value opportunities for carbon abatement and cost reduction across the enterprise.

## Feature Summary (continued)

- **Peak Demand Forecasting** — Leverage AI-based peak demand forecasting for optimal energy spend and emissions reductions
- **Project Management** — Identify, prioritize, track, and execute a portfolio of CapEx projects and sustainability measures
- **Measurement & Verification** — Track and report emissions reductions using machine-learning algorithms, consistent with IPMVP standards
- **Advanced Line and Process Visualization** — Visualize manufacturing operations within and across plants, including interrelationships between equipment, equipment lines, configurations, processes, and products
- **Automated Reporting** — Automatically populate reports in line with global and regional ESG frameworks (e.g., SASB, GRI, CDP, IIRC)
- **Stakeholder Engagement** — Manage stakeholder sentiment and actively collect feedback on ESG initiatives via a stakeholder engagement platform
- **Risk Monitoring** — Actively monitor and action against potential supply chain, environmental, and reputational risks via NLP-powered (natural language processing) adverse media screening

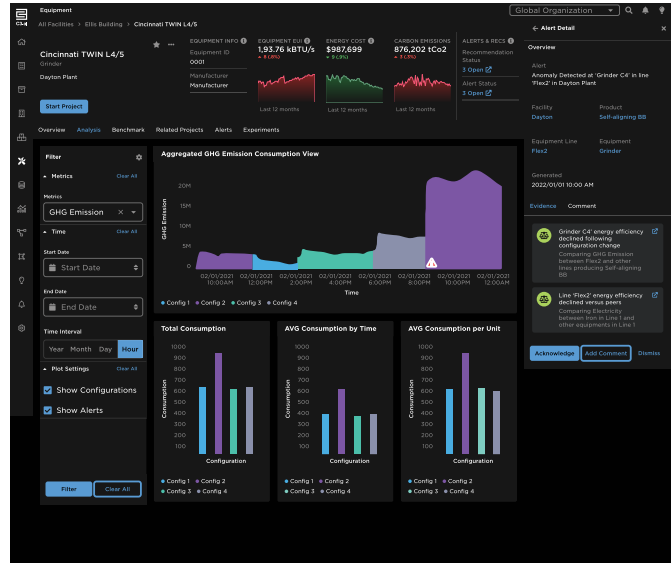


Figure 2. Using C3 AI Sustainability for Manufacturing, operators and sustainability managers can continuously track, benchmark, and report emissions at the level of individual equipment lines and products

## Harnessing the Power of AI to Achieve Zero-Carbon Objectives

### Benefits of C3 AI Sustainability for Manufacturing include:

- Accelerate the energy and zero-carbon transition by allowing enterprises to understand their carbon footprint and prioritize an AI-powered roadmap to achieve sustainability targets
- Streamline monitoring and analysis of Scope 1, 2, and 3 greenhouse gas emissions using machine learning and advanced AI techniques
- Streamline reporting across sustainability and ESG goals for quarterly/annual reviews and audits
- Reduce GHG emissions and energy spend via AI-recommended actions
- Create alignment across the enterprise and externally by defining and tracking sustainability goals and publishing progress regularly

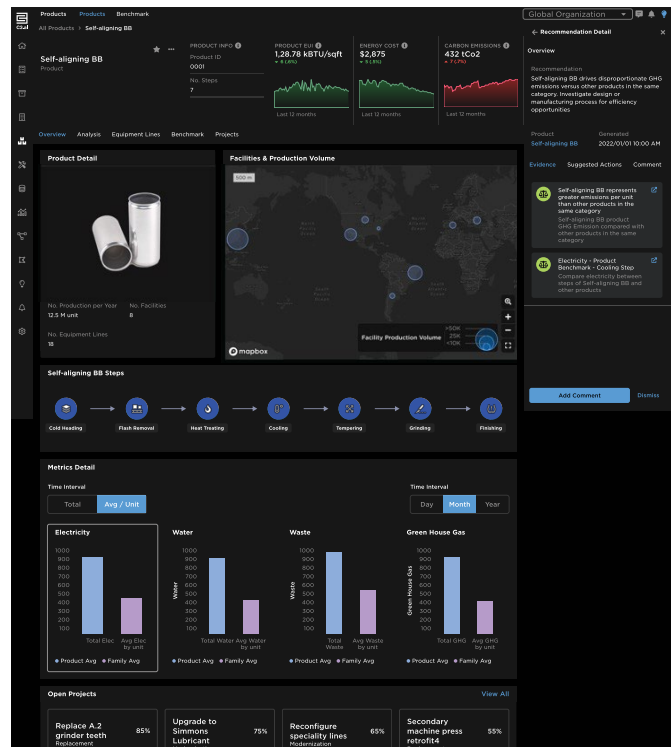


Figure 3. C3 AI Sustainability for Manufacturing automates product 'lifecycle assessments' to help manufacturers identify opportunities for embedded emissions reductions, both with value chain partners and in product design

Proven Results in 8-12 Weeks

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