



ARTIFICIAL INTELLIGENCE

INTEGRATING AI WITH SUSTAINABLE ACTIONS

At McCarthy Building Companies, Inc. (McCarthy), our approach to artificial intelligence (AI) reflects our commitment to sustainability. We focus on responsibility, transparency, and long-term impact. We are actively exploring the ethical and secure use of AI through company-approved tools to support smarter project delivery, tracking emissions, generating content, and conducting research.

This approach can help protect data and reduce energy use, and shows our commitment to low-carbon innovation and meeting regulations. Just like we include climate resilience in our construction methods, we are also committed to integrating responsible AI in our digital practices. This helps our clients' lower risks, keep costs under control, and achieve their evolving sustainability goals.

HARNESSING AI EFFICIENCIES IN CONSTRUCTION

AI has the potential to make construction more sustainable by cutting down the environmental impact of energy-intensive processes. Industry experts suggest that automating repetitive tasks like data collection and site analysis could lessen manual work and lower resource use during the early stages of projects^[1]. In concept, AI-enabled logistics may help optimize routes, predict when maintenance is needed, and prevent breakdowns that can waste fuel and cause delays on active jobsites^[2].

Beyond construction, AI is being explored for its long-term potential to improve building operations and reduce environmental impact. When used strategically and sustainably, it can support smarter, more efficient projects with lasting benefits.

AI'S POTENTIAL IN BUILDING OPERATIONS:

Energy Optimization: Predictive tools can monitor and adjust HVAC, lighting, and power use in real time — helping facilities cut energy consumption without sacrificing performance^[3].

Efficiency Trade-offs: While AI consumes energy (e.g., generative AI can use 5× more than a standard web search), it can offset emissions-heavy activities when applied intentionally^{[1],[4]}.

Sustainable Outcomes: AI-driven systems offer promising solutions for reducing a building's environmental footprint over time.

MEASURING OUR IMPACT

In 2024, we set out to improve how we track and report greenhouse gas (GHG) emissions — reinforcing our commitment to sustainability and doing things right. To meet strict reporting standards and reduce the burden on our project teams, we turned to AI.

By leveraging an AI-powered tool, we scanned invoices to capture detailed activity data such as gallons of fuel and kWh of energy. This process enabled us to calculate emissions with greater speed and accuracy — without requiring tedious paperwork from jobsite staff.

We also published a comprehensive GHG emissions report covering all primary sources, including fuel, electricity, and natural processes — supporting our clients in reaching their sustainability goals.

AI Advantages:

- **39,000+ invoices scanned** to capture actual fuel (gallons) and electricity (kWh) data.
- **4,600+ hours of admin work saved**, allowing teams to focus on delivering quality work.
- **Minimal jobsite data demands**, so teams could prioritize core responsibilities.

1. World Economic Forum. "Generative AI: Energy Emissions." July 2024. [<https://www.weforum.org/stories/2024/07/generative-ai-energy-emissions/>]

2. World Economic Forum. "Intelligent Transport: Greener Future." 2025. [https://reports.weforum.org/docs/WEF_Intelligent_Transport_Greener_Future_2025.pdf]

3. Sustainability News. "How Predictive AI Helps Data Centres Achieve Energy Savings." [<https://sustainability-news.net/industries/energy/how-predictive-ai-helps-data-centres-achieve-energy-savings/>]

4. MIT News. "Explained: Generative AI's Environmental Impact." Jan 2025. [<https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117>]