# Marketers face carbon dilemma as generative AI challenges green ambitions



Many marketers are grappling with a significant contradiction in their efforts to champion sustainable practices while leveraging the energy-intensive capabilities of generative artificial intelligence (GenAI). As the industry increasingly pivots towards digital solutions, a pressing concern has emerged: can marketing truly commit to green goals when its tools, particularly GenAI, contribute heavily to carbon emissions? Recent findings from climate tech firm 51toCarbonZero paint a sobering picture. While a remarkable 90% of marketers believe that the industry can achieve net zero by 2030, 42% cite their increasing use of GenAI as the most significant barrier to that ambition.

This dissonance underscores a broader challenge in marketing—a sector that has swiftly adopted GenAI for applications ranging from campaign optimisation to automated content creation, often without fully accounting for the environmental impact. Richard Davis, CEO of 51toCarbonZero, highlighted this tension, stating, “GenAI is energy-intensive. But with the right knowledge and approach, it can be used more sustainably.” He advocates for smaller language models (SLMs), which can deliver effective marketing solutions with significantly lower energy demands than their larger counterparts like GPT-4.

The ramifications of neglecting sustainability in marketing extend beyond ethical considerations; they represent a tangible business risk. Digital marketing emissions now rival those of the aviation industry, propelled by the increasing reliance on programmatic media and round-the-clock ad operations. Davis underscores the urgency of integrating marketing emissions into broader corporate decarbonisation strategies: “It sounds simple, but just integrating marketing’s emissions into the company’s net-zero plan is a crucial first step.”

Moreover, as procurement teams become more concerned with sustainability, the narrative surrounding budget constraints is shifting. Marketers are now facing pressure to disclose emissions and demonstrate genuine commitment to sustainability. “We’re already seeing vendors excluded from RFPs or pressured to show progress toward net zero,” Davis noted, revealing a trend that makes sustainability a critical factor in business decisions across the sector.

The impetus for change is driven not only by internal motivations but also by external pressures. Investors, consumers, and regulatory bodies are increasingly demanding accountability regarding climate impacts. It is increasingly evident that decarbonisation is not merely a moral imperative but a strategic business advantage; it enhances trust, improves operational efficiency, and strengthens market position.

While some companies are paving the way by investing in carbon intelligence platforms and demanding greater transparency from their partners, others remain mired in a phase of mere awareness. As regulations intensify—particularly in the EU and UK—those lagging behind may face significant disadvantages. Davis notes, “The pressure is coming from investors, regulators, consumers, even employees. Decarbonisation isn’t just the right thing to do. It’s smart business.”

The need for marketing to align its strategies with sustainability goals is more critical than ever. As it sits at the nexus of reputation, influence, and innovation, marketing's role is pivotal in driving corporate sustainability forward. If effectively managed, marketing's embrace of GenAI and other digital tools could ultimately serve as catalysts for positive environmental impact, instead of obstacles.

Integrated strategies for making GenAI more sustainable are gaining traction. This includes utilising efficient algorithms, adapting pre-trained models for specific tasks, and allocating resources to optimise renewable energy generation. Moreover, companies must measure and manage the emissions associated with AI use, aligning AI practices with broader corporate decarbonisation objectives.

As marketers face the dual challenge of leveraging advanced technologies while committing to meaningful climate action, the pathway forward necessitates heightened awareness and proactive strategies. The intersection of technology and sustainability must become a priority, setting the stage for a more responsible approach to marketing in an increasingly environmentally-conscious world.

### Reference Map

* Paragraph 1: [[1]](https://www.thedrum.com/news/2025/05/19/marketers-want-go-green-genai-locking-them-carbon-trap), [[2]](https://www.warc.com/content/feed/genai-is-biggest-obstacle-to-sustainability-for-brand-marketers/10554)
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* Paragraph 3: [[1]](https://www.thedrum.com/news/2025/05/19/marketers-want-go-green-genai-locking-them-carbon-trap), [[2]](https://www.warc.com/content/feed/genai-is-biggest-obstacle-to-sustainability-for-brand-marketers/10554)
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## Bibliography

1. <https://www.thedrum.com/news/2025/05/19/marketers-want-go-green-genai-locking-them-carbon-trap> - Please view link - unable to able to access data
2. <https://www.warc.com/content/feed/genai-is-biggest-obstacle-to-sustainability-for-brand-marketers/10554> - A survey by 51toCarbonZero reveals that 42% of marketers view the increasing use of carbon-intensive generative AI as the greatest barrier to sustainable operations. Despite this, 90% believe the industry can achieve net zero by 2030. The study highlights the need for integrating marketing's emissions into broader corporate decarbonization strategies and emphasizes the importance of sustainable AI practices in marketing.
3. <https://www.forbes.com/sites/corneliawalther/2024/11/12/generative-ais-impact-on-climate-change-benefits-and-costs/> - This article discusses the significant environmental impact of generative AI, noting that training large AI models can emit as much carbon as five cars over their lifetimes. It also highlights the surge in demand for data centers, which consume vast amounts of electricity and water, contributing to greenhouse gas emissions and water resource depletion. The piece calls for the AI industry to prioritize green development and renewable-powered data centers to mitigate these effects.
4. <https://www.accenture.com/cr-en/blogs/consulting/making-generative-ai-green> - Accenture outlines strategies for making generative AI more sustainable, including minimizing computational costs through efficient algorithms and hardware, adapting pre-trained models to new tasks to reduce energy consumption, and applying AI to accelerate the energy transition by optimizing renewable energy generation. The article emphasizes the importance of integrating sustainability into AI development to align with corporate decarbonization goals.
5. <https://www.marketing-interactive.com/marketers-sustainable-AI> - This article emphasizes the need for marketers to understand the climate impact of their work, particularly when using generative AI. It suggests that companies should measure and manage the emissions from AI usage, align with sustainability goals, and establish transparent AI policies. The piece also highlights the importance of integrating carbon footprint reporting into company culture and investing in responsible AI practices.
6. <https://www.forbes.com/sites/zendesk/2023/12/11/5-ways-companies-can-promote-more-sustainable-ai/> - Forbes outlines five strategies for companies to promote more sustainable AI: calling for greater supplier transparency, promoting energy efficiency, using renewable energy, applying sustainable engineering practices, and measuring and managing AI's environmental impact. The article emphasizes the importance of balancing AI's transformative potential with environmental responsibility to achieve sustainability goals.
7. <https://www.okoone.com/spark/technology-innovation/generative-ai-is-forcing-businesses-to-scale-back-sustainability-plans/> - This article discusses the substantial resource consumption of generative AI, noting that training models like OpenAI's GPT-4 can consume as much electricity as 5,000 U.S. households in a year. It also highlights the environmental impact of data centers and the potential for AI hardware waste to reach 5 million tonnes by 2030. The piece underscores the challenges businesses face in balancing AI adoption with sustainability objectives.