

WHITEPAPER

GHG Verification:

Why it matters
and how it works



Foreword

Corporate sustainability data is about to be placed under greater scrutiny than ever, as the SEC's 2024 climate disclosure rules will require large companies to submit limited or reasonable assurance starting in the next few years. The good news is that greenhouse gas verification provides a level of rigor and diligence that gives our industry added legitimacy, helping corporate sustainability avoid skepticism and claims of greenwashing.

On the individual company level, verifiers act as a collaborator, providing accuracy and actionability to your data along with recommendations on how to improve your sustainability program. When you've engaged a verifier, you can feel confident in what you're reporting, both externally to the public and regulators and internally to your colleagues and stakeholders.

Thanks to our collaborators at J.S. Held for unpacking the verification process in this white paper. Transparency and accuracy are essential to the success of corporate sustainability programs, and verifiers like J.S. Held make that possible.

 **Ty Colman, Optera Co-Founder and CRO**



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01 Introduction

As the urgency of climate action intensifies, organizations face a growing imperative to transparently measure and manage their environmental impact. Greenhouse gas (GHG) verification is a critical tool in this process, as well as being a multifaceted, intricate process in its own right—one that fosters sustainable practices across industry lines. By demystifying the verification process and highlighting its significance, we aim to equip you to embark on a path of environmental accountability and contribute to a more sustainable future.



02 The Four Pillars of GHG Verification

Your choice of verifier directly impacts the integrity and reliability of your GHG emissions data. Prioritize verifiers with proven competence, accreditation, and a thorough understanding of the standards relevant to your organization and its reporting obligations.

The accuracy and credibility of GHG verification rest upon a solid foundation built on these four essential pillars:

Verification
Standards

Verification
Body
Accreditation

Individual
Accreditation

Individual
Qualifications



PILLAR 1: VERIFICATION STANDARDS

GHG verification requests adherence to recognized standards, including ISO 14064, ISAE3000, and ASAE3000, which provide the groundwork for accurate and consistent emissions reporting. These standards offer a structured approach, ensuring that organizations worldwide can adopt a unified methodology in their GHG accounting practices. By aligning with these standards, businesses enhance the credibility of their emissions data, enabling meaningful comparisons and benchmarking across sectors.

PILLAR 2: VERIFICATION BODY ACCREDITATION

Verifier body accreditation from reputable entities such as the American National Standards Institute (ANSI) and the United Kingdom Accreditation Service (UKAS) may be applicable for some clients. Accreditation ensures the body providing verification services meets rigorous technical and operational standards, and that verifiers possess the most applicable expertise for certain regulatory reporting programs where verifier body accreditation may be a requirement.

PILLAR 3: INDIVIDUAL ACCREDITATION

While standards and accreditation lay the groundwork, the human element in GHG verification is equally pivotal. Certification programs for individuals, such as the Certified Carbon Auditor (CCA), ISO 14064 Lead Verifier, and Greenhouse Gas Verification Professional (GHG-V-P), ensure that verifiers possess the requisite skills and knowledge to conduct meticulous verifications. These programs not only equip individuals with the technical proficiency to navigate diverse verification scenarios, but also foster a community of experts committed to upholding the integrity of GHG verification.

PILLAR 4: INDIVIDUAL QUALIFICATIONS

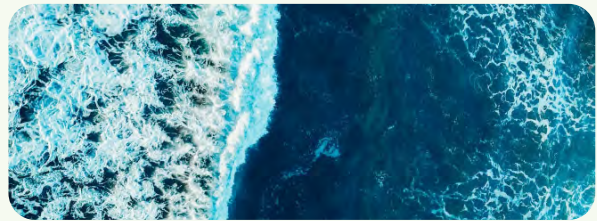
The qualifications of individuals engaged in the verification process vary, often dictated by regional or programmatic requirements. For instance, in Canada's carbon pricing system, Lead Auditors must have a minimum of five years of experience in auditing financial statements and a deep understanding of Canadian Auditing Standards. This underscores the importance of individual expertise and specialized knowledge tailored to the specific context of each GHG verification.

03 Why GHG Verification Matters

GHG verification directly impacts an organization's credibility, regulatory standing, and ability to drive real reductions in their environmental impact.

Credibility and transparency

Verified GHG emissions data catapults an organization into a realm of heightened credibility and transparency. Stakeholders, investors, and consumers can trust that reported data is not only accurate, but also aligned with international standards, fostering trust and confidence in an organization's commitment to sustainability.



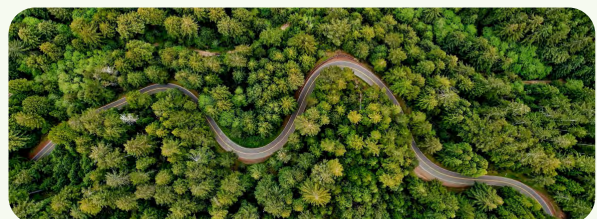
Risk management and continuous improvement

GHG verification is not merely a compliance exercise; it is a strategic tool for risk management and continuous improvement. Through the identification of emission hotspots and performance gaps, organizations can implement targeted strategies to reduce their carbon footprint. This proactive approach not only mitigates risks associated with climate change, but also positions the organization as a leader in sustainability.

Regulatory compliance

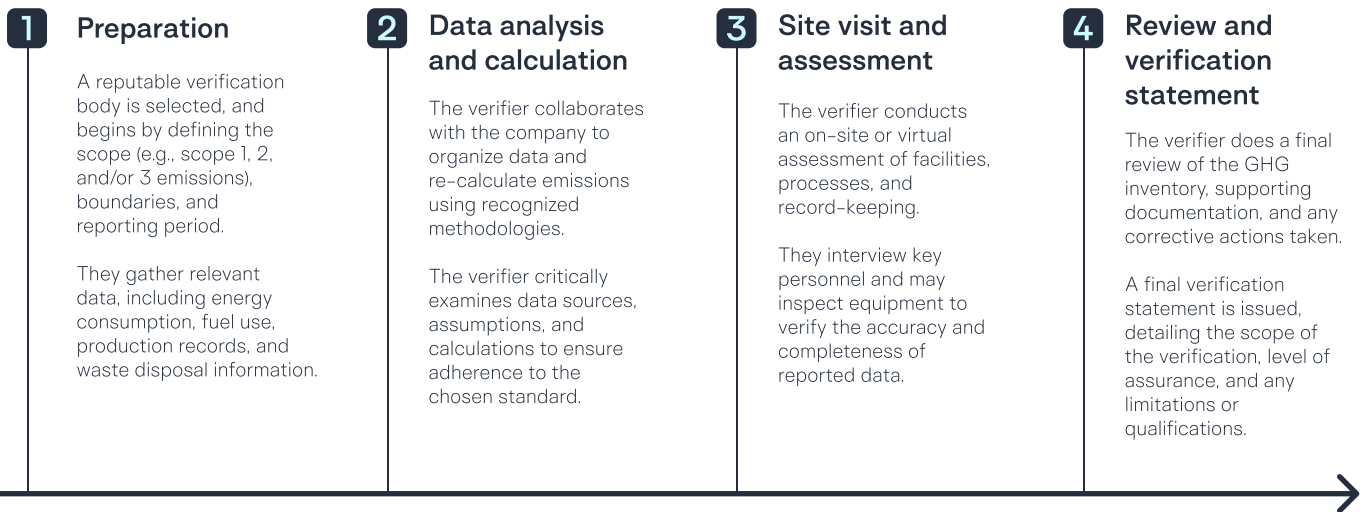
Beyond fostering trust, GHG verification is often required for regulatory compliance. Adherence to established standards ensures that organizations remain proactive in meeting and exceeding evolving regulatory expectations. For example, the [SEC announced that it would enhance its focus on climate-related disclosure in public company filings](#) and has mandated third-party verification for accelerated filers and large accelerated filers starting in 2029.

Additionally, [California's SB 253](#) on GHG emission reporting introduces a crucial element of accountability by stipulating independent third-party assurance over a company's GHG emissions reporting. Companies will undergo a phased assurance process, commencing with limited assurance (a review) for the initial reporting year and progressing to reasonable assurance (an audit) in subsequent periods.



04 Behind the Scenes of GHG Verification

If your company is embarking on its first GHG verification process, here's a glimpse of what happens behind the scenes:



There are some common challenges and pitfalls a company may encounter during the verification process. Incomplete or unreliable data can be a major hurdle if the company has outdated data management systems or inconsistent record-keeping across departments.

Furthermore, GHG emissions calculations—especially for scope 3 emissions (value chain emissions)—can be complex and require specialized expertise. Some companies have this expertise in-house, while others may need to engage an independent third party for support. Finally, companies should recognize that the verification process can create additional workload for staff. Clear communication and planning are essential to make the process run smoothly.



05 Conclusion

GHG verification is not a mere checkbox on the sustainability to-do list; it is a dynamic process that demands precision, expertise, and a commitment to the highest standards. The four pillars—verification standards, verification bodies' accreditation, individual accreditation, and individual qualifications—help to ensure the accuracy and transparency of emissions reporting. As the world transitions toward a low-carbon future, we can expect further developments that will enhance the efficiency and impact of GHG verification:

Technology-driven transformation

The integration of technologies such as remote sensing, blockchain, and artificial intelligence (AI) promises to revolutionize data collection, analysis, and assurance. These tools have the potential to streamline GHG verification, enhance traceability, and minimize the risk of errors.

Increased scrutiny on scope 3

While scope 1 and 2 emissions (direct and indirect emissions from a company's operations) are a primary focus, scope 3 emissions (covering the entire value chain) are increasingly coming under scrutiny. Effective scope 3 verification strategies will become even more critical for companies striving for comprehensive sustainability reporting.

Growing importance for investors and stakeholders

Investors, customers, and regulatory bodies are demanding greater transparency and accountability around climate-related disclosures. GHG verification will play an even more significant role as a mark of reliability and integrity for those seeking to align themselves with environmentally responsible organizations.

As companies grapple with the urgency of climate action, GHG verification is becoming a strategic imperative. If your organization has not yet engaged in the verification process, now is the time to explore it. By embracing GHG verification, you showcase your commitment to sustainability, optimize operational efficiency, manage climate-related risks, and build trust with stakeholders. Take this crucial step toward a more sustainable future and ensure that your organization plays a responsible role in addressing the defining challenge of our time.

About J.S. Held

J.S. Held is a global consulting firm that combines technical, scientific, financial, and strategic expertise to advise clients seeking to realize value and mitigate risk.

Our professionals serve as trusted advisors to organizations facing high stakes matters demanding urgent attention, staunch integrity, proven experience, clear-cut analysis, and an understanding of both tangible and intangible assets. The firm provides a comprehensive suite of services, products, and data that enable clients to navigate complex, contentious, and often catastrophic situations.

This year, we are proud to celebrate our 50th anniversary. To learn more about J.S. Held and our journey from foundation to future, view the video [50 & Forward](#).

Learn more about J.S. Held →

About Optera

Optera was founded in 2006, originally operating as a boutique corporate sustainability consulting firm called Point380. Our founders were key contributors to groundbreaking publications – Winning the Oil Endgame, Reinventing Fire, and The 3% Solution – that informed the foundations of corporate climate action. These studies culminated in a report commissioned to launch the influential We Mean Business Coalition called The Climate Has Changed.

Around the signing of the Paris Agreement in 2016, it had become clear that consulting alone could not move the needle on corporate sustainability quickly enough to meaningfully enable global decarbonization. This need inspired the creation of Optera, the software company dedicated to scaling carbon management to empower corporations to transition to zero emissions. Built on the insights from consulting for many of the world's largest corporate sustainability programs, Optera's software launched in 2018 and has since been adopted by leading organizations like Cisco, HPE, NVIDIA, TJX, and Williams Sonoma. As the need for climate action increases, we're set to grow and scale along with our clients. We believe that existential questions require concrete tools, and this is how we can make the most impact in the fight against climate change.

Learn more about Optera →