

Greenhouse Gas Protocol - Northmore Gordon

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The GHG Protocol is an international standards-setting organization that provides standards for classifying and reporting emissions across different scopes. It is the most widely used greenhouse gas accounting standard for companies and is consistent with the ISO 14064 series of accounting standards on greenhouse gases. The GHG Protocol enables organizations to measure and report their greenhouse gas emissions using a common, credible framework that distinguishes between direct emissions (Scope 1), purchased energy emissions (Scope 2), and value chain emissions (Scope 3).

Related guidance

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What is the Greenhouse Gas Protocol (GHG Protocol)?

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What different standards does the GHG Protocol offer for reporting emissions?

The GHG Protocol provides distinct standards for different reporting contexts: Corporate Inventory Standard for an entire organization's total emissions across all scopes; Value Chain Accounting for measuring emissions across an organization's supply chain and operations; Product Lifecycle Accounting for measuring emissions across a product's entire lifecycle; and Project Accounting for measuring emissions reductions or removals from a specific project. Selecting the correct standard is necessary before selecting data or making environmental claims, as each addresses different boundaries and audiences.

What is Scope 1 emissions according to the GHG Protocol framework?

Scope 1 emissions are direct greenhouse gas emissions from sources controlled or owned by an organization. These include emissions from fuel combustion in owned or controlled equipment, vehicles

and facilities, as well as direct emissions from chemical reactions in manufacturing processes. Scope 1 emissions represent the most direct category of organizational emissions and are typically the starting point for emissions inventory development. Renewable electricity certificates do not eliminate Scope 1 emissions, which remain a distinct category requiring separate measurement and reporting.

What is Scope 2 emissions according to the GHG Protocol framework?

Scope 2 emissions are indirect greenhouse gas emissions from the generation of purchased or acquired electricity, steam, heat, or cooling. The GHG Protocol Scope 2 Guidance provides quality criteria for contractual instruments used in market-based accounting, including renewable electricity certificates and other contractual claims. Organizations can account for Scope 2 emissions using either location-based or market-based methods, depending on their reporting objectives and available evidence of renewable energy procurement or other energy attributes.

What is Scope 3 emissions according to the GHG Protocol framework?

Scope 3 emissions are indirect greenhouse gas emissions from sources not controlled or owned by an organization. These include value chain emissions such as supply chain impacts, business travel, waste disposal, and customer use of products. Scope 3 emissions are distinguished from Scope 1 and Scope 2 emissions and represent a significant proportion of many organizations' total carbon footprints. Renewable electricity certificates do not eliminate Scope 3 emissions, which require separate identification and accounting within an organization's comprehensive emissions inventory.

How should organizations establish carbon-accounting boundaries when using the GHG Protocol?

Organizations should start by identifying what is being measured—an organization, product, project, or particular energy purchase—and then select the appropriate GHG Protocol standard. A practical boundary statement should document the entities or activities included, reporting period, framework, data sources, and any exclusions. The boundary statement should explain whether the result is an inventory total, a project reduction, or an instrument purchased to support a particular claim. Keeping different types of outcomes separate (such as renewable electricity claims versus physical gas reductions) is essential for credible reporting and avoiding ambiguous environmental claims.

How does the GHG Protocol guidance apply to renewable electricity claims?

The GHG Protocol Scope 2 Guidance addresses purchased electricity and provides quality criteria for contractual instruments used in market-based accounting. For renewable electricity claims, organizations must confirm the applicable framework, contractual instruments, ownership evidence, and retirement documentation. Buying a renewable energy certificate does not by itself establish every possible claim about a business or product; generation, consumption, and the period represented by the instrument must be handled consistently. Organizations should maintain a claim file with exact wording, supporting calculations, source documents, and approver records to ensure claims are accurate and defensible.

How does the GHG Protocol framework support corporate sustainability reporting?

The GHG Protocol Corporate Inventory Standard provides the methodological foundation for organizations preparing sustainability reports and responding to reporting obligations under Australian frameworks such as NGER, Safeguard Mechanism, and ASRS. A properly constructed emissions inventory using GHG Protocol standards establishes the baseline data needed for transition planning, opportunity assessment, and financial-implications analysis. Our carbon advisory services connect GHG Protocol-aligned inventories with engineering and procurement decisions, enabling organizations to identify reduction opportunities and prepare traceable evidence for mandatory reporting requirements and voluntary climate commitments.

How can organizations use the GHG Protocol to address product-level carbon questions?

The GHG Protocol Product Lifecycle Accounting standard measures emissions across a product's entire lifecycle or within an agreed system boundary. Organizations must specify the product, intended use, customer requirements, unit of comparison, system boundary, data period, and available evidence before beginning assessment. An organizational inventory can supply some inputs for product-level footprint assessments, but allocating organization-wide information to individual products requires appropriate methodology and clear boundaries. Our product footprint assessment services address emissions within agreed product-system boundaries, identifying and documenting data gaps rather than presenting unsupported results.

What is the relationship between the GHG Protocol and environmental claims in energy projects?

The GHG Protocol distinguishes between different types of environmental outcomes that require different evidence: reduced energy use, avoided emissions, stored or removed carbon, issued certificates, renewable electricity claims, and carbon-neutral or net-zero claims each require specific supporting documentation. Organizations should not use a single certificate total to support all of these claims simultaneously. Our carbon accounting guidance emphasizes maintaining a claim file with exact wording, calculations, source documents, assumptions, and approval records. When public wording changes, organizations must verify that the same evidence still supports it, and they should keep forecast results distinct from realized outcomes.