



Greenhouse Gas Protocol

Scope 2 Proposal Summary

Overview

As part of a process begun in 2022 to update and revise the Scope 2 Guidance, the Greenhouse Gas (GHG) Protocol secretariat solicited [a call for written feedback](#) in early 2023. In addition to a survey on key scope 2 questions, the secretariat issued a call for proposals to further articulate ideas for updating the Scope 2 Guidance. The secretariat received over 70 proposals. Collectively, these proposals (and survey feedback) showed clear interest in updating three GHG accounting methods:

- 1) Improvements to the **location-based method**,
- 2) Improvements to the **market-based method**, as well as
- 3) Elevation of the role of and improvements to **reporting emission impacts from projects and interventions**.

Improvements to **location-based** accounting included calls to increase the accuracy, specificity, and accessibility of this method. Proposal authors highlighted the need for scope 2 emission inventories that are comparable across organizations over time and aligned with the undifferentiable nature of electricity distributed across the grid as a shared resource.

Proposal authors calling for improvements to **market-based** accounting cited similar improvements to those for location-based accounting (accuracy, specificity, accessibility), as well as an array of research studies focused on the need to improve how claimed scope 2 inventory reductions via the use of energy attribute certificates more closely reflect real-world GHG emission reductions.

Finally, some proposal authors pointed to **project- or intervention-based** consequential GHG accounting as an important tool to capture the system-wide impacts of electricity-related projects. In addition to making updates to technical guidance, these authors identified a need for greater emphasis on the reporting of project-based assessments within target- or goal-setting programs and emerging mandatory emission disclosure regulations.

In working toward a consensus-based outcome aligned with the GHG Protocol decision criteria, the GHG Protocol secretariat will begin the formal stakeholder consultation process by reviewing the technical basis for these improvements and assessing their application and integration into a GHG emissions report.

Key Suggested Improvements from Scope 2 Proposals

To help develop a summary of all the proposals submitted, the secretariat met with proposal authors to present a provisional outline of common themes and asked the authors to confirm that their proposal was reflected in that list.¹ The secretariat also offered authors the opportunity to clarify their objectives and rationale for the proposed updates. Following these meetings, the secretariat collated a list of key suggested improvements, outlined below. Rationales for each proposed update reflect discussions from these stakeholder meetings (rationales included below are not exhaustive, nor are they verbatim quotes). Additional details on these proposed updates are available both within the [originally submitted proposals](#) as well as the [Scope 2 Survey Summary](#) as referenced below.

Improve the location- and market-based methods by increasing granularity in time and location of scope 2 data and Quality Criteria requirements

Description

- Require the use of grid emission factors that more closely match *in time* with when energy consumption occurs to determine the emissions associated with electricity consumption for both methods. Use hourly matching rather than matching on an annual basis as is currently required.
- Require the use of grid emission factors that more closely match *in location* to where the energy consumption occurs in determining the emissions associated with electricity consumption for both methods. Use emission factors from electricity generation that have the potential to actually be delivered to where the reporting company consumes electricity.
- Within the market-based method, most proposals require *both* hourly matching and deliverable market boundaries for any energy attribute certificates (e.g., RECs, GOs, etc.) claimed. A subset of proposals focused more directly on deliverable market boundaries only.
- Within the market-based method, many also suggested that an hourly residual mix with granularly defined geographic boundaries would also be necessary in determining the emissions associated with electricity consumption.
- Some proposals suggested that in a transitional phase where hourly data is unavailable, reporting organizations may use energy consumption load profiles based on their building or facility type on a monthly or annual basis.

Rationale

- Proponents of these improvements shared a position that these updates to the existing scope 2 methods would better align the emissions associated with generation and transmission of electricity on the grid with the emission claims associated with an organization's electricity consumption.
- Proponents also emphasized that increased granularity in time and location requirements better incentivizes load management and procurement strategies that support decarbonization of the electricity system than do the current requirements.
- Within the market-based method, some proposals also included restrictions on resource eligibility (e.g., only new resources or resources the reporting organization could claim to

¹ Note that a small subset of the 70 proposals included topics beyond scope 2 and will be evaluated as part of other GHG Protocol revision workstreams.

have helped cause to exist are eligible). These proposed eligibility criteria stem from the findings of several peer-reviewed research studies that concluded they are essential to guarantee any emission reductions asserted using the scope 2 market-based method contribute effectively to system-wide decarbonization.

- Within the market-based method, other proposals stated all generating resource types, including existing and new, should be eligible for market-based method claims to enable complete allocation of generation to consumers of electricity.

Refer to Section C of the Scope 2 Survey Summary for detailed reading.

Improve the market-based method by requiring additionality for market-based scope 2 claims

Description

- Require the existence of some causal relationship between a reporting organization and the emission rate counted by that reporting organization toward making a market-based method claim on emissions associated with electricity consumption.
- Proposal authors suggested a variety of approaches for what might constitute additionality, including limiting sources to those that did not exist prior to the claim being made, restricting certain kinds of sources like unbundled electricity products, or otherwise demonstrating emission reductions more closely tied to a reporting organization's scope 2 market-based method claims.

Rationale

- Better ensures that claimed reductions in scope 2 market-based method inventories reflect real-world decarbonization of the electricity grid.
- Reduces instances of perceived greenwashing in corporate inventories.

Refer to Section D of the Scope 2 Survey Summary for detailed reading.

Improve scope 2 location- and market-based methods with minor updates

Description:

- Maintain historical scope 2 accounting methods with only minor updates to add clarity and specificity for users.
- Proposal authors cited more *specific* market boundary requirements for both methods, and within the market-based method to provide updated guidance on certificate tracking systems in global markets, additional market-based quality criteria tiers to reflect recent market developments, additional clarity on choosing emission factors for making market-based method claims, and other adjustments to the existing Scope 2 Guidance language.

Rationale

- Maintain historical accounting methods to allow continuity with existing practices, contractual arrangements, targets and goals. Minor updates can improve feasibility and enable further adoption for mandatory reporting.
- Encourage widespread participation in actions to decarbonize the grid by leveraging existing scope 2 market-based method approaches.

Refer to Section C of the Scope 2 Survey Summary for detailed reading.

Elevate the role of project accounting to report changes in emissions caused by an organization's interventions

Description

- Report the estimated avoided or induced emissions from energy generation using marginal emission factors, and emissions of energy consumption using either marginal or grid average emission factors and net both calculations to report a single value.
- Use the best available real time, temporally and locationally granular emission factors applied to generation and consumption data for all quantification methods.
- Avoided emission claims can be derived from projects located within or outside of the local grid region or market in which the reporting organization consumes electricity (e.g., a company located in one region of the world could invest in a clean energy resource in a different region and account for the avoided emission benefits of that project).
- Methodology shares many similarities with project- or intervention-based accounting methods to quantify avoided or induced emissions relative to counterfactuals.
- Proponents of these proposals varied in their preferences on whether this approach should attempt to hybridize project accounting principles (e.g., consequential methods) with the inventory accounting methodology (e.g., attributional methods) or be reported in addition to an inventory-based scope 2 total.

Rationale

- Enable an emission reporting framework that incentivizes organizations to target locations with maximum decarbonization impact irrespective of the grid or market boundaries where their operations consume electricity. Enable emissions abatement claims globally while avoiding constraints to market boundary limitations and local grid consumption.
- Among proposal advocates favoring a hybridized approach, rationale included a position that this approach must be adopted within the Corporate Standard scope 2 inventory reporting to be recognized and included in target- and goal setting programs as well as mandatory climate disclosure rules.

Refer to Section E of the Scope 2 Survey Summary for detailed reading.

Note on Inventory and Project Accounting

Across the scope 2 proposals submitted there were suggestions drawing from both inventory/attributional accounting and project/intervention/consequential accounting methodologies. Authors differed in their approach to the role of these tools, with some calling for both methods to be used and reported separately, and others calling for development of a new, hybrid treatment seeking to combine methods and report a single metric.

The GHG Protocol [Corporate Accounting and Reporting Standard](#) and the [GHG Protocol for Project Accounting](#) provide two methods to account for emissions and emissions impacts. Respectively, entity-level GHG inventory accounting describes how to quantify and allocate an organization's share of emissions to the atmosphere, which includes the current location- and market-based methods in scope 2, while project-based GHG accounting describes how to evaluate emissions effects of a project or action relative to a counterfactual baseline scenario without the project or action. Within the Corporate Standard and Scope 2 Guidance, project-based accounting is currently included as an additional disclosure outside of the inventory. For further information on the background of these methods and their intended use, please see this [memo](#).

Sector-Specific Proposals

A variety of different proposals for sector-specific guidance called for additional clarifications or accounting methodologies for a variety of technologies and use cases (e.g., how to account for scope 2 emissions related to energy storage resources, embodied emissions of hydrogen used to produce energy, energy usage at collocated data centers, allocation of emissions from waste incineration with energy recovery, etc.). For several sector-specific guidance proposals, further clarity on how the different key improvements discussed above are addressed may be necessary prior to developing additional details on specific-specific proposals. Refer to Sections F and H in the Scope 2 Survey Summary for detailed reading.

Next Steps

The publication of the Scope 2 Survey Summary (completed November 2023) and the Scope 2 Proposal Summary (i.e., this document) marks the conclusion of the initial feedback-review phase of the process to update the GHG Protocol scope 2 reporting requirements. Over 400 survey submissions, 70 proposal submissions, and conversations held with over 1000 stakeholders between late 2021 and late 2023 have shown strong interest in location-, market- and project-based accounting and have revealed several key suggestions for improvement as outlined above.

Although these proposed improvements differed in their technical details, many authors suggested various combinations of the improvements detailed above within their proposals. Broadly, the proposals highlighted four possible combinations of reporting structures:

- Report both **location-** and **market-based** scope 2 totals, as is required in the existing Scope 2 Guidance,
- Report a single **market-based** scope 2 total,
- Report a **location-based** total and a **project-based** total (using consequential accounting tools), or

- Report a **location-based**, **market-based**, and **project-based** total (using consequential accounting tools).

In working toward a consensus-based outcome aligned with the GHG Protocol decision criteria, the GHG Protocol secretariat will begin the formal stakeholder consultation process by reviewing the technical basis for the improvements detailed above and assessing their application and integration into a GHG emissions report. Formal workplans will be reviewed in collaboration with the Technical Working Group and Independent Standards Board.

The GHG Protocol secretariat is currently soliciting applications and nominations for its new governance bodies, including a new Steering Committee, an Independent Standards Board, and Technical Working Groups. Applications are due by January 15, 2024. Additional information on the roles and responsibilities of each body, including how to apply, can be found on the GHG Protocol [website](#).