



Template for submitting proposals related to GHG Protocol's *Corporate Standard, Scope 2 Guidance, Scope 3 Standard, Scope 3 Calculation Guidance* and market-based accounting approaches

(Optional)

Proposal instructions

GHG Protocol is conducting four related surveys in reference to the following GHG Protocol standards, guidance and topics:

1. Corporate Accounting and Reporting Standard (Revised Edition, 2004) ("Corporate Standard")
2. Scope 2 Guidance (2015)
3. Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011) ("Scope 3 Standard"), and Technical Guidance for Calculating Scope 3 Emissions, version 1.0, 2013 ("Scope 3 Calculation Guidance")
4. Market-based accounting approaches

The survey is open until March 14, 2023. To fill out the survey, [click here](#).

As part of the survey process, respondents may provide proposals for potential updates, amendments, or additional guidance to the *Corporate Standard, Scope 2 Guidance, Scope 3 Standard, or Scope 3 Calculation Guidance*, by providing the information requested in this template. You may also use this template to provide justification for maintaining a current approach on a given topic.

Submitting proposals is optional. Respondents may submit multiple proposals related to different topics.

Proposals should be as concise as possible while providing the requested information. Submissions that are outside of the template may not be considered. Proposals may be made publicly available.

To submit the proposal, please save this file and fill out the fields below. When you've completed your proposal, please upload the file via this [online folder](#). Please name your file STANDARD_Proposal_AFFILIATION, e.g., *Scope 2_Proposal_WRI*.

Respondent information

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If proposals are made publicly available, would you like your proposal to be made publicly available? Please write either "Yes" (make publicly available) or "No" (do not make publicly available).

Yes

If your proposal is made publicly available, would you like it to be made publicly available with attribution (with your name and organization provided) or anonymous (without any name or organization provided)? Please write either "With attribution" or "Anonymous".

With attribution

Proposal and supporting information

- 1. Which standard or guidance does the proposal relate to (Corporate Standard, Scope 2 Guidance, Scope 3 Standard, Scope 3 Calculation Guidance, general/cross-cutting, market-based accounting approaches, or other)? If other, please specify.**

Scope 2 Guidance

2. What is the GHG accounting and reporting topic the proposal seeks to address?

The dual reporting requirement and the market-based and location-based data hierarchies.

3. What is the potential problem(s) or limitation(s) of the current standard or guidance which necessitates this proposal?

Dual reporting market-based and location-based scope 2 totals is confusing and incorrectly conveys that location-based accounting describes the energy generating resources that companies are purchasing and consuming. Market-based accounting is the only scope 2 emissions accounting approach that accurately reflects how electricity is purchased, and whether and how it is purchased on a resource-specific basis, by both suppliers and consumers, where it is purchased. Adoption of this update would simplify reporting and remove uncertainty that can disincentivize actions that mitigate emissions.

The way emissions associated with purchased electricity are accounted for must reflect the ways that suppliers and consumers legally purchase and/or choose their electricity (including in accordance with legal mandates), and emission reduction targets that include indirect emissions should accurately reflect these choices. Location-based data should only be used to approximate load-based accounting where there effectively are no specified transactions or allocations of specified generation to load or where market-based data does not exist. Use of location-based data in an area with market transactions double counts emissions associated with purchased electricity no matter how precise the location-based data is. It makes unfounded claims that take credit for the actions of others and it does not hold reporters who choose to purchase specified fossil or from utilities with generation mixes that are dirtier than the grid average accountable to those choices.

The location-based figure does not represent emissions that are “physically” delivered to customers, or a “physical emissions footprint” for electricity. In markets where electricity generation is differentiated and transacted on a resource-specific basis using contractual instruments, e.g., the US, a location-based figure helps consumers understand the average of what is produced in their region. That is good for transparency and energy management decisions, but average emissions from electricity generation in a grid region and other source-based emissions totals are out of the direct control of the consumer, except to the extent that it may move to a different region or build new clean generation to incrementally affect the average. As a result, location-based accounting does not allow consumer choice (or supplier choice or mandate) to be used as a driver of change. It fails to recognize demand-side action and consumer preferences for lower-emitting generation, which is in direct conflict with the purpose of carbon footprinting.

Market-based accounting was being implemented for scope 2 reporting and other calculations of indirect emissions prior to the adoption of the Scope 2 Guidance in 2015. As such, this proposal does not represent a transition away from only location-based to only market-based accounting. Location based accounting has been as prevalent as it is because of a lack of market-based data, which customers would have to convince their electricity suppliers to provide.

There have also been improvements to the quality and availability of market and grid data since 2015, which should be reflected in the data hierarchy.

4. Describe the proposed change(s) or additional guidance.

CRS is proposing that the Scope 2 Guidance be updated to require a single market-based scope 2 total that relies on an updated single market-based data hierarchy, with market-based data sources (load-based data) at the top, and location-based data sources below. Location-based data should never be used to calculate a load-based emissions total where electricity is differentiated and legally transacted on a resource-specific basis and where market-based data about those transactions exists.

We propose a hierarchy with broad categories including generator-specific and transaction-specific data (e.g. all certificate-based transactions and purchases, bundled or unbundled), utility-specific and region-specific load-based (residual mix), as well as source-based data in order of precision with respect to the consumer. To support this, we recommend adding more precise location-based data to the hierarchy, above grid average data, including better estimations of the emissions associated with the generation physically supporting load or the likely origins of power in an area or at a specific point of consumption, based on the geographic proximity of generation to that location and paths of least resistance for electricity on the grid.

An example of this new hierarchy is attached for the working group's consideration.

Null power—specified purchase where EACs are sold off—should be assigned the utility default mix if the electricity is being purchased from a utility (if it's utility load), or the residual mix (starting with narrowest available geography) if being purchased from a generator.

Where the reporting entity is located in an area where specified power is bought, sold and allocated to load contractually and location-based data is used due to lack of better market-based data, the scope 2 figure should be accompanied by additional disclosure stating that calculated emissions do not reflect the legal allocation of generation and emissions due to lack of data.

Data in the hierarchy (both market-based and location-based) can be annual or more temporally precise, e.g., hourly. Information about hourly data sources can be added to the scope 2 Guidance.

Importantly, our proposal does not remove location-based accounting. This proposal results in no change for reporting entities that are currently using a location-based figure because there are no differentiated purchasing options or allocations to load. Reporting entities that are located in an area where electricity is transacted on a resource-specific basis but that do not have market-based data will also continue using location-based, but they will no longer have to report the same number twice. Neither does this proposal result in a change for those currently using market-based, except that they will no longer have to report a location-based figure, which does not reflect theirs or others' purchases in places where there is market-based data and is in conflict with the market-based figure where they are both reported by the same company. It will mean that companies that are purchasing specified fossil or from utilities with generation mixes that are dirtier than the grid average can no longer hide their emissions by reporting the grid average.

5. Please explain how the proposal aligns with the GHG Protocol decision-making criteria and hierarchy (A, B, C, D below), while providing justification/evidence where possible.

A. GHG Protocol accounting and reporting approaches shall meet the GHG Protocol accounting and reporting principles (see Annex for definitions):

- Accuracy, Completeness, Consistency, Relevance, Transparency
- Additional principles for land sector activities and CO₂ removals: Conservativeness, Permanence, and Comparability if relevant

Market-based accounting, as part of the standard already, has been shown to meet the GHG Protocol's reporting principles. It is also the most appropriate accounting method for what scope 2 is designed to represent: "emissions from the generation of purchased electricity." Location-based accounting is also accurate for what it represents, but it does not convey a reporting entity's right to account for the emissions from the electricity it purchases. As supplemental information to help drive purchasing decisions it can be valuable, however, it should only be used within scope 2 where there are no market transactions, or no market-based data exists.

Using this proposal, scope 2 will be as accurate as possible for individual companies and reflect the purchasing choices and decisions made by companies in a particular market. And it will be comparable across companies in the same market with the same access to data. Prioritizing cross-market comparability over accuracy would mean forcing all reporting entities to use the lowest quality data, a race to the bottom, and emissions calculations will not accurately reflect how electricity is actually purchased/transacted and the choices actually made by consumers in a given market.

B. GHG Protocol accounting and reporting approaches shall align with the latest climate science and global climate goals (i.e., keeping global warming below 1.5°C). To support this objective (non-exhaustive list):

- Direct emissions reported in a company's inventory should correspond to emissions to the atmosphere. Reductions in direct emissions reported in a company's inventory should correspond to reductions in emissions to the atmosphere.
- Indirect emissions reported in a company's inventory should in the aggregate correspond to emissions to the atmosphere. Reductions in indirect emissions reported in a company's inventory should in the aggregate correspond to reductions in emissions to the atmosphere.

There is significant empirical data showing that markets have increased clean energy generation in the US through the creation of compliance markets and leadership undertaken by corporate and

residential consumers in the voluntary market. In addition, as clean energy resources have come online, they have brought the overall emissions of the power sector in the US down even as net generation increases.

There will always be a difference between aggregated *reported* scope 2 and sectoral emissions because of incomplete reporting, selection bias, and GHG Protocol rules that prevent double counting within an inventory. Incomplete reporting presents the greatest challenge to observing a difference between reported changes to aggregated scope 2 in corporate emissions databases and direct emission from the electricity sector. However, complete reporting is not required for the market-based method to be accurate and aligned with climate science and global climate goals. Neither the accuracy of scope 2 reports nor the theory of change depends on complete reporting; they can be measured through other means.

CRS is actively coordinating additional research on the importance of voluntary REC markets to new renewable energy development to help make the aggregated impact of this portion of electricity markets more transparent. This project will include a series of case studies, new analyses of project and investment data, and a new modeling approach to assess the historical and potential impact of voluntary green power demand in the US electricity system using an updated version of NREL's Regional Energy Deployment System (ReEDS) model with enhanced voluntary market capability. Outcomes of this are expected to be published on a rolling basis between mid and late 2023.

C. GHG Protocol accounting frameworks should support ambitious climate goals and actions in the private and public sector.

- Would this proposal enable organizations to pursue more effective GHG mitigation/decarbonization efforts as compared to the existing standards and guidance? If so, how?
- Would this proposal better inform decision making by reporting organizations and their stakeholders (e.g. related to climate-related financial risks and other relevant information associated with GHG emissions reporting)?

Market-based accounting promotes the development and expansion of clean energy markets to facilitate reported scope 2 reductions and enables many of the tools available to address emissions from the electricity sector and increasingly other energy-related sectors including transportation and industrial energy use. In addition to electric sector tools such as corporate clean or renewable energy demand, clean storage, clean utility products, renewable portfolio standards and clean energy standards, and GHG regulation of load serving entities and imported electricity. It is critical to defining and documenting the attributes of electricity embedded in clean electric vehicle charging and low carbon fuels and clean hydrogen. All of these tools have a role to play in decarbonizing the global economy. Supporting market-based accounting in corporate inventory reporting creates opportunities for reporting entities to invest in supporting these policies and technologies in

innovative ways that would be more challenging or impossible to accomplish if there was no reflection of the success of their efforts and investments in their inventory.

A single market-based scope 2 total better informs a reporting entity and its stakeholders, by presenting an accurate account of their purchasing options and decisions and removing the option for companies to take responsibility for the investments and market activities of other entities by relying on the grid average.

D. GHG Protocol accounting frameworks which meet the above criteria should be feasible. (For aspects of accounting frameworks that meet the above criteria but are difficult to implement, GHG Protocol should provide additional guidance and tools to support implementation.)

- What specific information, data or calculation methods are required to implement this proposal (e.g., in the case of scope 2, data granularity, grid data, consumption data, emission information, etc.)? Would new data/methods be needed? Are current data/methods available? How would this be implemented in practice?
- Would this proposal accommodate and be accessible to all organizations globally who seek to account for and report their GHG emissions? Are there potential challenges which would need to be further addressed to implement this proposal globally? What would be the potential solutions?

A single market-based hierarchy simplifies reporting while providing a credible reporting pathway for anyone to utilize the best data that is available to them. The proposed hierarchy will benefit from the development and distribution of new data and methodologies, but not having access to data will never prevent a reporting entity from disclosing its scope 2 emissions.

This proposal results in no change for reporting entities that are currently using a location-based figure because there are no differentiated purchasing options or allocations to load. Reporting entities that are located in an area where electricity is transacted on a resource-specific basis but that do not have market-based data will also continue using location-based, but they will no longer have to report the same number twice. Neither does this proposal result in a change for those currently using market-based, except that they will no longer have to report a location-based figure, which does not reflect theirs or others' purchases in places where there is market-based data and is in conflict with the market-based figure where they are both reported by the same company. It will mean that companies that are purchasing specified fossil or from utilities with generation mixes that are dirtier than the grid average can no longer hide their emissions by reporting the grid average.

No additional challenges would be introduced by adopting this proposal.

6. Consistent with the hierarchy provided above, are there potential drawbacks or challenges to adopting this proposal? If so, what are they?

CRS has not identified any drawbacks unique to this proposal. However, the market-based accounting framework proposed here would still require a methodology that recognizes that as supplier-provided or independently procured attributes are equivalent, they may be summed in a way that allows a reporter to achieve 100% clean or renewable electricity use through a combination of supplier-delivered attributes and active procurement. CRS's Clean Energy Accounting Project publication on "Accounting for Standard Delivery Renewable Energy" provides guidance and an example of this methodology beginning on page 9: <https://resource-solutions.org/document/030921/>.

7. Would the proposal improve alignment with other climate disclosure rules, programs and initiatives or lead to lack of alignment? Please describe.

This proposal would align with the majority of other emissions and renewable energy disclosure, corporate climate inventory reduction initiatives and regulatory mandates and programs that allocate generation and associated emissions to load. For example, US states implement and enforce market-based accounting practices in Clean Energy Standard (CES) and Renewable Portfolio Standard (RPS) programs, Electric Product Disclosure (EPD) programs, most resource planning processes, and rules for accounting for emissions associated with imported and delivered electricity (both direct and from regional markets). All of these existing policies recognize market transactions and delivery of specified power and emissions on the grid based on contractual instruments.

US state programs that allocate generation to load also nearly universally recognize unbundled market instruments. In fact, some states and programs—namely RPS and EPD programs in some states with organized power markets—rely entirely on unbundled market instruments to allocate specified generation to load.

Inconsistency between voluntary reporting of customer scope 2 emissions and regulatory programs for specified delivery of energy or associated emissions to retail load (and/or carbon regulations, EPD requirements, and other programs that account for delivered power on the grid) damage the integrity and impact of all programs. Diverging from the accounting framework used by load-based regulatory programs creates a risk of double counting generation and falsely recognizing companies for investments and associated emissions reductions for which they are not responsible. On the other hand, mutually supportive voluntary and compliance markets strengthen regulatory and tracking infrastructure, data aggregation and quality, and functional support tools that can serve multiple markets to further standardize and synchronize accounting rules and MRV practices, mitigate leakage of environmental benefits, and create liquidity for environmental benefits.

- 8. Please attach or reference supporting evidence, research, analysis, or other information to support the proposal, including any active research or ongoing evaluations. If relevant, please also explain how the effectiveness of the proposal can be evaluated and tracked over time.**

Please find attached an example updated single market-based data hierarchy table (Table 6.3) for consideration.

The effectiveness of this proposal could be evaluated, at least indirectly, by tracking the number of organizations that choose to procure clean energy in the market (and the scale of that procurement), the expansion of enabling market infrastructure and the development and maturation of clean energy markets in new regions. The true value of the update is simplifying reporting and removing uncertainty that can disincentivize actions that mitigate emissions.

- 9. If applicable, describe the process or stakeholders/groups consulted as part of developing this proposal.**

N/A

- 10. If applicable, provide any additional information not covered in the questions above.**

Proposal Annex

GHG Protocol Decision-Making Criteria and Hierarchy

- A. First, GHG Protocol accounting and reporting approaches shall meet the GHG Protocol accounting and reporting principles:**
- Accuracy, Completeness, Consistency, Relevance, Transparency
 - Additional principles for land sector activities and CO₂ removals: Conservativeness, Permanence, and Comparability if relevant
 - (See table below for definitions)
- B. Second, GHG Protocol accounting and reporting approaches shall align with the latest climate science and global climate goals (i.e., keeping global warming below 1.5°C). To support this objective (non-exhaustive list):**
- Direct emissions reported in a company's inventory should correspond to emissions to the atmosphere. Reductions in direct emissions reported in a company's inventory should correspond to reductions in emissions to the atmosphere.
 - Indirect emissions reported in a company's inventory should in the aggregate correspond to emissions to the atmosphere. Reductions in indirect emissions reported in a company's inventory should in the aggregate correspond to reductions in emissions to the atmosphere.
- C. Third, GHG Protocol accounting frameworks should support ambitious climate goals and actions in the private and public sector:**
- Accounting framework/s would enable organizations to pursue more effective GHG mitigation/decarbonization efforts as compared to the existing standards and guidance
 - Accounting framework/s would better inform decision making by reporting organizations and their stakeholders (e.g. related to climate-related financial risks and other relevant information associated with GHG emissions reporting)
- D. Fourth, GHG Protocol accounting frameworks which meet the above criteria should be feasible to implement for the users of the frameworks.**
- For aspects of accounting frameworks that meet the above criteria but are difficult to implement, GHG Protocol should provide additional guidance and tools to support implementation.

GHG Protocol Accounting and Reporting Principles

Principle	Definition
Accuracy	Ensure that the quantification of GHG emissions (and removals, if applicable) is systematically neither over nor under actual emissions (and removals, if applicable), and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.
Completeness	Account for and report on all GHG emissions (and removals, if applicable) from sources, sinks, and activities within the inventory boundary. Disclose and justify any specific exclusions.

Consistency	Use consistent methodologies to allow for meaningful performance tracking of emissions (and removals, if applicable) over time and between companies. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.
Relevance	Ensure the GHG inventory appropriately reflects the GHG emissions (and removals, if applicable) of the company and serves the decision-making needs of users – both internal and external to the company.
Transparency	Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.
Conservativeness (Land Sector and Removals Guidance)	Use conservative assumptions, values, and procedures when uncertainty is high. Conservative values and assumptions are those that are more likely to overestimate GHG emissions and underestimate removals, rather than underestimate emissions and overestimate removals.
Permanence (Land Sector and Removals Guidance)	Ensure mechanisms are in place to monitor the continued storage of reported removals, account for reversals, and report emissions from associated carbon pools.
Comparability (optional) (Land Sector and Removals Guidance)	Apply common methodologies, data sources, assumptions, and reporting formats such that the reported GHG inventories from multiple companies can be compared.