

Emissions First Partnership Scope 2 Survey Template

Submission Deadline: March 14, 2023

Survey Overview

- This survey pertains to the [GHG Protocol Scope 2 Guidance](#).
- 41 questions over 5 sections. Combination of single-choice, multiple choice, and freeform questions.

Survey

Intro (questions 1-10)

Data and privacy acknowledgement

1. In order to proceed to the survey, please click yes below to acknowledge that you have reviewed the information in the Process Memo and Scope 2 Survey Memo and that you consent to the data disclosure agreements outlined in the Process Memo. • Yes • No

Respondent information

2. Name

3. Organization

4. Country

5. Email address

6. Would you like to receive email updates from GHG Protocol?

• Yes • No

7. Does your company/organization have a greenhouse gas inventory?

• Yes • No • Other (please specify)

8. Are you involved in developing your company/organization's greenhouse gas inventory? • Yes

• No • Not applicable • Other (please specify)

9. What is your organization type?

• Academia/research • Company • Consultant supporting organizations with GHG inventories/strategies • GHG reporting program or initiative • Government institution •

International agency • Electric Grid Operator • Industry group • Non-profit

organization/NGO/civil society • Provider of data or product related to GHG inventories • Other (please specify)

10. What is your company's sector? • Agriculture • Apparel • Biotech, health care and pharmaceutical • Chemicals • Construction • Consumer goods • Education • Energy • Finance • Food and beverage • Forest products • Forestry • Fossil fuels • Hospitality • Information and communication technology • Infrastructure • Insurance • Manufacturing • Materials • Mining • Power generation • Professional, scientific, and technical services • Real estate • Retail • Services • Transportation • Utilities (water, gas, electricity) • Waste management • Other (please specify)

General Questions (questions 11-32)

11. Does your organization use the Greenhouse Gas Protocol Scope 2 Guidance to develop and report its greenhouse gas inventory? **[Select 1 answer]**
- a. **Yes**
 - b. No
 - c. Not sure
 - d. Not applicable (my company/organization does not have a greenhouse gas inventory)
 - e. Other [briefly explain]
12. How satisfied are you with the current GHG Protocol Scope 2 Guidance? **[Select 1 answer]**
- a. Very dissatisfied
 - b. Somewhat dissatisfied
 - c. Neither satisfied nor dissatisfied
 - d. **Somewhat satisfied**
 - e. Very satisfied
 - f. Not applicable (I don't use it)
13. Do you think there is a need to update the GHG Protocol Scope 2 Guidance? **[Select 1 answer]**
- a. No (no update needed)
 - b. Minor update (limited updates, clarifications, additional guidance, or refresh needed)
 - c. **Major update (major changes or revisions needed)**
 - d. No opinion/Not sure
14. Briefly explain your selection for question 13 and/or submit a more detailed proposal. **[Freeform response]**

See custom proposal submitted by the **Emissions First Partnership (EFP)**

15. **Do you think there is a need for updates related to the scope 2 location-based method?** [Select 1 answer]

- a. **No (no update needed)**
- b. Minor update (limited updates, clarifications, additional guidance, or refresh needed)
- c. Major update (major changes or revisions needed)
- d. No opinion/Not sure

16. Briefly explain your selection for question 15 and/or submit a more detailed proposal.
[Freeform response]

17. **Do you think there is a need for updates related to the scope 2 market-based method?**

- a. No (no update needed)
- b. Minor update (limited updates, clarifications, additional guidance, or refresh needed)
- c. **Major update (major changes or revisions needed)**
- d. No opinion/Not sure

18. Briefly explain your selection for question 17 and/or submit a more detailed proposal.
[Freeform response]

See custom proposal submitted by the [Emissions First Partnership](#)

19. **Do you think there is a need for updates related to the dual reporting requirement, i.e., to report scope 2 emissions using both the location-based method and market-based method?** [Select 1 answer]

- a. No (no update needed)
- b. **Minor update (limited updates, clarifications, additional guidance, or refresh needed)**
- c. Major update (major changes or revisions needed)
- d. No opinion/Not sure

20. Briefly explain your selection for question 19 and/or submit a more detailed proposal.

[Freeform response]

See “Transition Period for Impact-Based Accounting” section of the custom proposal submitted by the **Emissions First Partnership**

This response maps directly to Emissions Accounting principle

21. Does your organization publicly report scope 2 emissions using the location-based method, the market-based method, or both? [Select 1 answer]

- a. Location-based only
- b. Market-based only
- c. Both**
- d. Not applicable
- e. Not sure

22. Does your organization publicly set GHG reduction targets/goals for scope 2 emissions based on the location-based method, the market-based method, or both? [Select 1 answer]

- a. Location-based only
- b. Market-based only
- c. Both
- d. Not applicable
- e. Not sure

23. If your organization reports a GHG inventory, does your organization use residual emission factors when calculating scope 2 emissions using the market-based method?

[Select 1 answer]

- a. Yes
- b. No
- c. Partially
- d. Unsure
- e. Not applicable

24. Chapter 11 of the Scope 2 Guidance, titled “How Companies Can drive Electricity Supply Changes with the market-based method”, elaborates how organizations can use their procurement power to substantively contribute to new low-carbon energy supply. In this context, does your organization pursue any of the options suggested in Chapter 11 and/or otherwise empirically evaluate the connection between changes in GHG emissions to the atmosphere and your organization’s scope 2 related decarbonization investments? [Select 1 answer]
- Yes
 - No
 - Not sure

25. If so, briefly explain how? [Freeform response]

Our organization pursues the following options suggested in Chapter 11: (include any and all that apply to your organization)

- Contracting directly with new low-carbon energy projects** (via Long-term PPAs or other contracts for energy procurement)
- Working with electricity suppliers for new projects** (we influence the proceedings that affect the generation resources owned and used by the utility from which we buy power by making demands for low-carbon energy tariffs or purchasing options based on or supporting new low-carbon energy projects)
- Establishing "eligibility criteria" for corporate energy procurement, relating to specific energy generation features or policy interactions that align with new low-carbon energy projects** (we establish our own instrument featuring requirements around criteria such as technology type, facility age or facility siting, energy generation's relationship to our supplier quotas, etc.)
- Incremental funding or donations** (We engage in incremental funding for new projects in voluntary certificate programs)

26. Has your organization identified any instances where application of the current Scope 2 Guidance has led to changes in your reported GHG inventory (i.e., an increase or decrease in reported emissions) while potentially leading to an unequal or opposite outcome in total GHG emissions to the atmosphere? [Select 1 answer]
- Yes
 - No
 - Not sure

27. If so, please briefly explain. [Freeform response]

The following are some examples to consider when forming a response specific to your company:

1. Under the current protocol, a business that consumes electricity in Wyoming can sign a PPA in Texas to offset their energy consumption. If the volume of energy procured in Texas equals the amount consumed in Wyoming, the business can claim to have fully eliminated its carbon footprint when, in reality, due to significant differences in the carbon intensity of the grids between geographies and based on time of consumption, the company will likely still have a meaningful unaddressed emissions footprint. This issue is particularly significant in the US and EU.

2. Deploying energy storage, both standalone and coupled systems, is not always appropriately quantified in scope 2 inventories today. Energy storage has round trip efficiency losses, so if the measurement is only in MWh, then reporting the use of energy storage will always have a negative impact as it does not consider the difference in emissions impact. Since the market-based method relies on EACs from Carbon free energy (CFE) purchases to reduce scope 2 emissions, decarbonization solutions that do not generate EACs (like energy storage) or have emissions reductions that differ from EAC-backed accounting, may not be appropriately quantified.

This answer maps directly to Emissions Accounting Principle 1

28. **New grid-connected technologies and/or their increased deployment may require further clarification or changes to the Scope 2 Guidance to better address accounting of emissions associated with these resources. Please select from the potential options below any technologies which would benefit from updates or additional guidance. Please also include any additional technologies outside of this list which should be considered. Any specific suggestions related to these technologies should be submitted in the Scope 2 proposal section. [Select all that apply]**

Advanced Metering Infrastructure (“AMI”)

Demand-side load management (e.g., demand response, load shifting, etc.)

Electric vehicle charging and grid integration

Energy storage technology

Hydrogen as an “energy carrier” similar to electricity, steam, cooling, etc.

More geographically granular electric grid emission data (e.g., emissions associated with electricity at specific locations)

More time-granular electric grid emission data (e.g., monthly, hourly, etc. emission factors in addition to annual values)

Other [briefly explain]

29. Are there **existing** resources, tools, or databases developed by other organizations that you would suggest that GHG Protocol consider to support organizations in applying the Scope 2 Guidance? [Freeform response]

As the Scope 2 Guidance process considers questions on additionality and impact of RE procurement, we highly recommend looking to examples of practical guidance on these topics, specifically guidance informed by key features of renewable energy and decarbonization project finance models and markets. Some examples are below:

1. **WattTime whitepaper** "Accounting for Impact: Refocusing GHG Protocol Scope 2 methodology on "impact accounting":
Identifies gaps in current Scope 2 reduction calculation methodology and an impact-focused proposal to address the issue
<https://www.watttime.org/news/insight-brief-accounting-for-impact/>
2. **Solsystem article** "Reimagining REC Markets: Integrating Additionality and Emissionality into a New Carbon-Free Paradigm":
Part III proposes an emissionality component to renewable energy markets to maximize impact
<https://www.solsystems.com/reimagining-rec-markets/>
3. **Clean Air Task Force report** "Modernizing How Electricity Buyers Account and are Recognized for Decarbonization Impact and Climate Leadership":
Proposes a market ecosystem with new metrics, more relevant and robust information, and incentives that better optimize decarbonization impact
<https://cdn.caf.us/wp-content/uploads/2022/08/16103856/corporate-electricity-procurement-report.pdf>
4. **Rocky Mountain Institute whitepaper** "Approach to Quantify Net Material Emissions Impact of Renewable Energy Purchases":
Introduces a scoring system to quantify the impact of renewable energy to account for the differences in grid intensity
https://rockymnt.wpenginepowered.com/wp-content/uploads/2022/10/renewable_energy_emissions_score_approach.pdf

This answer maps directly to the "Learn More" page of the Emissions First website.

30. Are there new resources, tools, or databases that you think need to be developed to support organizations in applying the Scope 2 Guidance? [Freeform response]

To most accurately assign an emissions reduction value to each MWh of generated renewable energy, companies should use the marginal-emissions factor of the grid in which the generation project/attribute is located (ideally at the hourly and sub-region level). We recognize, however, that this data only exists in certain markets and that EIA is building out a database of marginal emissions rates of every grid balancing authority in the US. While we outline acceptable interim alternatives in more detail in the accompanying EFP proposal, building out a widely accepted database of marginal emissions factors from grid regions around the world will be necessary for the long-term success, and confidence, in corporate emission reduction claims.

Additionally, for any parties that wish to calculate marginal emissions rates going forward, there should be guidance on the methodology for calculating these rates, so that there is a standardized method by which multiple parties can develop the data in a pre-approved way.

At the same time, it is equally important to improve the quality of data related to time-stamped generation of renewable energy certificates. In order to most accurately assign a marginal emissions rate to a MWh of generated electricity, we must know the time interval and location when that electricity was generated (ideally hourly).

This answer maps directly to Emissions Accounting Principles #4 & 5, and Objective #2

31. Are there challenges in complying with the GHG Protocol Scope 2 Guidance requirements? If yes, please briefly describe the challenges as well as any potential solutions, industry-specific guidance, etc. that could address these challenges. *You may enter brief comments here or submit a more detailed proposal.* [Freeform response]

See custom proposal submitted by the **Emissions First Partnership**.

32. GHG inventory reporting can overlap and/or interact with regulatory policy mandates, state and federal subsidies, emission reporting or target-setting programs, etc. (e.g., see Scope 2 Guidance, Chapter 8.2 Reporting on the relationship between voluntary purchases and regulatory policies). Are there clarifications or changes in the Scope 2 Guidance that would simplify and harmonize complying with the Scope 2 Guidance and better align with regulatory policy mandates, programs, etc.? If so, please identify such interactions and share any potential solutions. [Freeform response]

Moving from a MWh-matching system to one that tracks quantified emissions, in the pursuit of more accurate emissions impact calculations in line with the proposal submitted by the Emissions First Partnership, aligns with general trends around the same topics from regulatory policies. If the overall reporting method can be made more accurate, it will be significantly easier to measure the impact of regulatory policies and in turn will steer behavior more impactfully. The GHG Protocol's Scope 2 guidance should harmonize with regulation as much as possible. By making a shift from MWh-matching to quantified emissions, this will provide more confidence as more regulation comes out.

This answer maps directly to Emissions Accounting Principle #8 and Objective #3

Questions for programs and policymakers

This section is intended for programs, initiatives, policymakers, or regulators using the GHG Protocol Scope 2 Guidance.

1. Please identify your program, policy, initiative, etc. which uses the GHG Protocol Scope 2 Guidance. [Freeform response]
2. How are you applying the Scope 2 Guidance in the context of your program? [Freeform response]
3. What is your experience applying the standard? Does your program implement all the requirements of the standard? If not, why not? Are there any gaps or problems you have faced in implementing the standard? Are changes to the standard and/or support on the use of the standard needed from a programmatic perspective? [Freeform response]

Questions on Scope 2 Guidance Aggregational Theory of Change

The current Scope 2 Guidance uses location-based and market-based accounting. Under the latter framework, Energy Attribute Certificates (EACs) are used to track and allocate consumer demand for the GHG attributes from a finite supply of attributes available for those claims. Ideally this results in demand signals that encourage development of new clean energy supply and GHG emissions reductions (see Scope 2 Guidance 11.1 Energy attribute supply and demand).

Currently, a limited number of customers globally voluntarily report GHG emission inventories. Even for those that do, obtaining the necessary information from suppliers can be challenging. For example, customers with high-emission power suppliers or contracts may not be disclosing or even have access to such information. Combined with other market factors, this lack of critical mass in reporting may challenge the efficacy of the “aggregational” theory of change and the ‘disclosure-risk-action’ paradigm, potentially reducing its overall efficacy in aggregate (see GHG Protocol Corporate Standard (WRI/WBCSD 2004), p. 59—60).

However, new regulatory mandates (such as climate disclosure initiatives including one by the US Securities and Exchange Committee (SEC), FSA disclosures in Japan, the European Union Corporate Sustainability Reporting Directive (CSRD), etc.) and growing consumer awareness are leading to increased demand for information about GHG inventories. These recent changes underscore the importance of developing an accounting framework that can be widely adopted and can help drive meaningful change.

Since the publication of the Scope 2 Guidance in 2015, seven years’ worth of data are now available to evaluate the performance of this accounting method and the “aggregational” theory of change. The following questions seek feedback on how we can use that data and experience to (1) assess the validity of the premise that EACs promote market-driven increases in clean energy and reduced emissions and/or (2) develop a predictive framework that will streamline GHG inventory accounting and ensure global atmospheric GHG reductions.

36. Based on the past seven years' worth of data, under the current market-based accounting framework, is there empirical support for the premise that market-based scope 2 accounting framework results in collective changes in low-carbon energy supply and global atmospheric GHG emission reductions? Please explain, including empirical justification on why or why not. *You may enter brief comments here or submit a more detailed proposal.* [Freeform response]

1. Bloomberg "What Really Happens When Emissions Vanish"

Quote "At least 1,318 companies employed market-based accounting to erase a combined 112 million metric tons of emissions from their records. That's equivalent to the annual pollution from 24 million cars."

<https://www.bloomberg.com/news/features/2022-11-01/intel-p-g-cisco-among-major-companies-exaggerating-climate-progress>

2. Bloomberg New Energy Finance "Corporate Clean Energy Buying Tops 30GW Mark in Record Year"

Quote "Total signed volumes were equivalent to more than 10% of all the renewable energy capacity added globally last year, showing the impact corporate sustainability pledges are having on clean energy build."

<https://about.bnef.com/blog/corporate-clean-energy-buying-tops-30gw-mark-in-record-year/>

37. **If necessary, are there changes to the market-based framework that can ensure rigorous accounting that demonstrates collective changes in low-carbon supply and global atmospheric GHG emission reductions? If unnecessary, why; If so, what changes?** *You may enter brief comments here or submit a more detailed proposal.* [Freeform response]

Yes, there are many changes suggested to ensure rigorous accounting. For full details please see custom proposal submitted by the **Emissions First Partnership**.

Questions on Scope 2 Guidance Attribute Quality Criteria

The Scope 2 Guidance Quality Criteria requirements were developed to represent the minimum features necessary to implement a market-based method of scope 2 GHG accounting using Energy Attribute Certificates (EACs). As designed, the market-based accounting method allows organizations to report in their inventory an immediate GHG emission reduction without necessarily needing to demonstrate a corresponding immediate and equivalent reduction in emissions to the atmosphere. This outcome is consistent with the supply/demand aggregational theory of change described above. (Note, please see questions 35-36 evaluating this topic.) However, the current EAC quality criteria required to claim the zero-emission attributes of a grid resource enables a range of EAC procurement options representing a broad spectrum of outcomes a reporting

organization can take responsibility for in their inventory. Narrowly in the context of scope 2 inventory accounting, so long as the minimum quality criteria are fulfilled, all procurement options, strategies, etc. are treated equivalently.

- 38. Chapter 7, Criteria 4 “Vintage” states all contractual instruments shall “Be issued and redeemed as close as possible to the period of energy consumption to which the instrument is applied.” Common practice today is for an organization to match some amount of their annual electric consumption load with Energy Attribute Certificates (EACs) produced in the same reporting year. What are the tradeoffs between continuing this practice as compared to introducing a more specific quality criteria than “as close as possible”? Should this quality criteria be made more specific (e.g., to specify it must be within the same year, month, hour, etc.) or remain unchanged? You may enter brief comments here or submit a more detailed proposal. [Freeform response]**

The current practice has been effective to ensure that the renewable energy time period roughly matches the same year of electricity consumption. An "as close as possible" temporal designation adds flexibility, which can expand the options of EACs that companies may choose to purchase. However, there are also benefits of added granularity around the time and location-stamped EACs, namely that the added granularity can more precisely quantify the emissions associated with each activity (incurred emissions to serve electric load, displaced emissions from contracted CFE generation).

This answer maps directly to Emissions Accounting Principle #1 and 2

39. **Chapter 7, Criteria 5 “Market Boundaries”** states all contractual instruments shall “Be sourced from the same market in which the reporting entity’s electricity-consuming operations are located and to which the instrument is applied.” Currently certificate market-boundaries encompass broad geographic regions such as entire continents and span multiple physical grid boundaries (i.e., see Scope 2 Guidance, page 64: “...markets for unbundled certificates have often been less constrained than those for electricity itself”). **What are the tradeoffs between continuing this practice as compared to introducing more specific guidance on the Market Boundary quality criteria?** You may enter brief comments here or submit a more detailed proposal. [Freeform response]

More restrictive/constrained market boundary quality criteria limit carbon-free energy procurement and other decarbonization investments by companies, as electricity market rules and financing conditions to enable voluntary procurement do not exist in each country or across all electricity balancing authorities within countries. Furthermore, companies would be even more constrained to reach the scale often required to execute higher impact procurement options such as long-term project specific PPAs or investments. For more details on this argument, please refer to the "Grid Boundary Limitations" section of the [proposal submitted by the Emissions First Partnership](#)

This answer maps directly to Emissions Accounting Principle #2

40. **Chapter 7: Scope 2 Quality Criteria** presents eight specific quality criteria. Please provide any additional considerations related to any of these criteria and/or potential additional criteria that could improve the application of location-based and/or market-based Scope 2 reporting (see Scope 2 Guidance, Chapter 4 for additional detail on how these methods contribute to GHG reductions in the electricity sector). You may enter brief comments here or submit a more detailed proposal. [Freeform response]

1. Market boundary (Criteria 5): See “Grid Boundary Limitations” section of proposal submitted by the Emissions First Partnership.
2. Modify Supplier or utility-specific emission factor (Criteria 6) - The guidance should encourage balance authorities and/or system operators to provide data on how their average and marginal emissions vary by hour over the year.

This answer maps directly to Emissions Accounting Principle #2

Additional Feedback on the Scope 2 Guidance

41. Please provide any additional considerations or context related to new clarifications or guidance in scope 2, maintaining the existing Scope 2 Guidance without changes, changes in the current location-based and/or market-based methods, or new methodological options that account for indirect reductions and meet GHG Protocol decision criteria (for more information on the decision criteria, please see the annex of the proposal template)? You may enter brief comments here or submit a more detailed proposal. **[Freeform response]**

For all details regarding adjustments to the current market-based method, please refer to the **proposal submitted by the Emissions First Partnership.**