

# Greenhouse Gas Protocol

## Survey on Need and Scope for Updates or Additional Guidance

### Scope 2 Guidance Survey Memo

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This survey pertains to the GHG Protocol [Scope 2 Guidance](#).

Please refer to the survey process memo for information about the purpose, process, and timeline for the survey, [available here](#).

In addition to providing survey responses, stakeholders may submit a proposal(s) for updates or additional guidance to GHG Protocol standards or guidance by following the instructions in the proposal template [available here](#).

Below is the list of questions that are included in the online survey form, as well as any background information.

## 1 Background information

### Scope 2 Guidance Survey Context

The Greenhouse Gas Protocol [Scope 2 Guidance](#) was published in 2015, developed over a three-year collaborative process with the input of over 200 representatives from companies, electricity utilities, government agencies, academia, industry associations, and civil society in over 23 countries.

Over the last seven years, this guidance has provided organizations across the globe a common framework to report indirect GHG emissions associated with the consumption of purchased electricity. By clarifying GHG Protocol's accounting rules and fostering transparency, the Guidance has supported organizations work to set emission reduction targets, develop internal abatement plans, disclose emission related data to investors and other stakeholders, and simplify compliance with mandatory reporting regulations among other benefits.

The last seven years has also demonstrated a need for further information to fully evaluate how the outcomes of the current Scope 2 Guidance location- and market-based accounting methods have compared with their design expectations and if updates could more effectively enable these outcomes. There has also been significant advancement in technology and data availability, as well as new regulatory policy which may necessitate updates and clarifications within the Scope 2 Guidance.

In light of these considerations and the urgency of climate action, Greenhouse Gas Protocol has launched a stakeholder process to evaluate changes to the current Scope 2 Guidance. This Stakeholder Survey is a first step in this process to gather inputs on both the empirical and conceptual questions to inform any Scope 2 revisions from global stakeholders including GHG programs (e.g., CDP, SBTi), businesses (e.g., companies using the guidance, clean energy developers, and consumers), governments, and other partners (e.g., environmental advocates, clean energy advocates, academics, etc.).

### Description of Current Guidance

The Scope 2 Guidance establishes a framework for organizations to quantify indirect emissions of their purchased and consumed electricity, steam, heat, or cooling (herein collectively referred to as "electricity", see *Scope 2 Guidance Section 1.2*). These emissions are considered as indirect because while the emissions are the result of the organization's use of electricity, they physically occur at distant sources on the electric grid owned by another organization (e.g., by an electricity generator or utility). Under the current Scope 2 Guidance, companies are required to report these indirect emissions using two different methods, referred to as the "Location-based" (*Section 4.1.1*) and "Market-based" (*Section 4.1.2*) reporting methods. Chapter 7 of the Guidance details reporting requirements and chapters 4, 8-11 provide additional context on these two methods. Please see [GHG Protocol Scope 2 Guidance](#) for additional detail.

## 2 Feedback form questions

### 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)

## Questions on the Scope 2 Guidance

11. Does your organization use the Greenhouse Gas Protocol *Scope 2 Guidance* to develop and report its greenhouse gas inventory?
- Yes
  - No
  - Not sure
  - Not applicable (my company/organization does not have a greenhouse gas inventory)
  - Other
12. How satisfied are you with the current GHG Protocol *Scope 2 Guidance*?
- 1 - Very satisfied
  - 2 - Somewhat satisfied
  - 3 - Neither satisfied nor dissatisfied
  - 4 - Somewhat dissatisfied
  - 5 - Very dissatisfied
  - Not applicable (I don't use it)
13. Do you think there is a need to update the GHG Protocol *Scope 2 Guidance*?
- No (no update needed)
  - Minor update (limited updates, clarifications, additional guidance, or refresh needed)
  - Major update (major changes or revisions needed)
  - No opinion/Not sure
14. Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.
15. Do you think there is a need for updates related to the scope 2 location-based method?
- No (no update needed)
  - Minor update (clarifications or additional guidance needed)

- Major update (major changes or revisions needed)
  - No opinion/Not sure
16. Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.
17. Do you think there is a need for updates related to the scope 2 market-based method?
- No (no update needed)
  - Minor update (clarifications or additional guidance needed)
  - Major update (major changes or revisions needed)
  - No opinion/Not sure
18. Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.
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?
- No (no update needed)
  - Minor update (clarifications or additional guidance needed)
  - Major update (major changes or revisions needed)
  - No opinion/Not sure
20. Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.
21. Does your organization publicly report scope 2 emissions using the location-based method, the market-based method, or both?
- Location-based only
  - Market-based only
  - Both
  - Not applicable
  - 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?
- Location-based only
  - Market-based only
  - Both
  - Not applicable
  - 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?
- Yes
  - No
  - Partially
  - Unsure
  - 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?

- Yes
- No
- Not sure

25. If so, how?

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?

- Yes
- No
- Not sure

27. If so, please explain.

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.

- 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, chilled water, 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

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*?

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

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 using the proposal template.

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.

## Questions for programs/policymakers

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

33. Please identify your program, policy, initiative, etc. which uses the GHG Protocol *Scope 2 Guidance*.
34. How are you applying the *Scope 2 Guidance* in the context of your program?
35. 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?

## 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 using the proposal template.
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 using the proposal template.



## 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 20-21 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.

**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.

38. What are the trade-offs 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? Please briefly explain or use the proposal template for a detailed reply.

**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*”).

39. What are the trade-offs between continuing this practice as compared to introducing more specific guidance on the Market Boundary quality criteria? Please briefly explain or use the proposal template for a detailed reply.

**Chapter 7: Scope 2 Quality Criteria** presents eight specific quality criteria.

40. 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*). Please briefly explain or use the proposal template for a detailed reply.

### **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 using the proposal template.