



March 14, 2023

Greenhouse Gas Protocol
World Resource Institute
10 G Street NE, Suite 800
Washington, D.C. 20002

WBCSD
Maison de la Paix
Chemin Eugène-Rigot, 2B
Case Postale 2075 CH-1211, Geneva 1
Switzerland

Re: Surveys on GHG Protocol Corporate Standards and Guidance

Dear Sir or Madam:

PricewaterhouseCoopers¹ is pleased to respond to the Greenhouse Gas Protocol’s “Survey on Need for GHG Protocol Corporate Standards and Guidance Updates.” Our response is informed by our interactions with clients and investors as well as our history of engagement and proactive thought leadership on ESG matters.

Please find our detailed responses to the Corporate Accounting and Reporting Standard survey, the Scope 2 Guidance survey, and the Scope 3 Standard and Scope 3 Calculation Guidance survey as well as our proposals for additional guidance in the attached appendices. This letter supplements our survey responses to provide an overview of our broad points for consideration as GHG Protocol contemplates updates and changes to its guidance.

Purpose

GHG Protocol is one of the most widely known and applied sustainability reporting frameworks. Even as ESG reporting continues to increase in prominence with proposed disclosures from the European Union as part of the Corporate Sustainability Reporting Directive (CSRD), internationally by the International Sustainability Standards Board (ISSB), and in the United States by the Securities and Exchange Commission (SEC), the criticality of GHG Protocol is reinforced by its incorporation in each of these “big three” proposals. The *GHG Protocol Corporate Standard* (the Corporate Standard) was created for this purpose, as a common standard intended to “improve[] the consistency, transparency, and understandability of reported information.”²

¹ “PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity. Following consultation with members of the PricewaterhouseCoopers network of firms, this response summarizes the views of those member firms that commented on the surveys.

² [*GHG Protocol Corporate Standard*](#), page 3

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Sustainability reporting, however, has evolved substantially since the GHG Protocol was launched more than 20 years ago. Not only is there increasing global urgency around greenhouse gas reductions, but greenhouse gas data is being used by a growing array of stakeholders to assess the contribution of individual companies to global warming and to measure their success in transitioning to lower carbon business models. Further, the increasing integration of sustainability information — including greenhouse gas emissions data — with financial information, as well as its increasing prominence, requires standards with enhanced rigor, flexibility, and clarity. In response, we believe that GHG Protocol should consider strategic, structural, and technical changes to maintain the quality and relevance of its guidance in light of its increasing importance to a broader group of stakeholders.

As a first step, we recommend that GHG Protocol redefine its purpose — with more specific recognition of the needs of multiple stakeholders and without bias or tailoring for a particular user group. Given continuous development in the emissions reporting environment, we believe it is critical that GHG Protocol recognize that its standards are referenced and used beyond the scope of environmental science, further supporting the need to prepare standards through a lens of stakeholder neutrality. Developing a statement of purpose reflective of a broader mission and expanded usage alongside financial reporting will ensure that the protocol remains relevant and flexible as reporting frameworks continue to evolve.

We also have overarching recommendations in the areas of governance, organization of the reporting standards, interoperability, and enhanced data quality as discussed below.

Governance

The reporting of financial information has developed over decades, building credibility through a high-functioning ecosystem of players — including management, corporate directors, auditors, standard setters, and regulators — working together for the benefit of financial statement users. While the financial reporting ecosystem had decades to achieve a robust common framework, parties in the ESG ecosystem will need to emulate this progress at a dramatically accelerated pace to effectively meet the burgeoning demand for sustainability information.

Because its standards are the linchpin of emissions reporting, GHG Protocol is a crucial player in the future of credible, reliable sustainability information. Accurate greenhouse gas reporting is integral to achieving emissions reduction targets, monitoring emissions activity by governments and regulatory agencies, understanding the impact of corporate actions, and informing investment and similar decisions. The more than 20 years already invested by GHG Protocol provide it with a strong foundation of reporting requirements; however, we believe changes are needed to more formally embrace its role as a credible and established international standard setter. By formalizing its operational practices and policies related to the development of standards, GHG Protocol would build trust in the emissions reporting environment, enhancing transparency and allowing users to rely on and apply its guidance consistently.

In our experience, elements of high-quality standard setting include:

- An oversight board comprised of key stakeholders
- A standard setting board with relevant expertise (e.g., engineering, sustainability reporting, standard setting)
- Formal due process over issuance of new standards
- Post implementation review
- Process for continuous updates and maintenance
- Competent staff from all relevant disciplines in sufficient number to achieve the objectives of the organization
- Independent source of funding



We also believe that there is value in developing a mechanism for interpretative guidance, similar to the Emerging Issues Task Force of the Financial Accounting Standards Board (FASB) or the IFRS Interpretations Committee of the International Accounting Standards Board (IASB). An implementation and interpretation group – with representatives drawn from a cross section of GHG Protocol’s constituencies, including preparers, environmental scientists, auditors and greenhouse gas attest providers, standard setters, regulators, and others – would improve the consistency and quality of emissions disclosures while providing a resource to preparers as the expectations of users continue to escalate.

In addition, the heightened focus on emissions reporting creates an increase in expectations for GHG Protocol to address and resolve related reporting issues (e.g., estimation techniques, measurement methodologies) as well as to continue to evolve with changing user expectations. To support the effective reporting of emissions, we strongly believe there is a need for GHG Protocol to invest in its own organizational structure, ensuring that relevant expertise and capital are dedicated to the improvement and maintenance of its reporting standards. This investment will provide returns to all stakeholders in the sustainability reporting ecosystem.

Organization of the reporting standards

As greenhouse gas emissions reporting continues to increase, so too will the need for complete, clear, and actionable guidance. GHG Protocol’s current guidance – including the Corporate Standard, the Scope 2 Guidance, and the Corporate Value Chain (Scope 3) Accounting and Reporting Standard – developed over time and intermingles background information, case studies, definitions, required and optional disclosures, and more. Further, in some cases it may be difficult for a user to identify the appropriate source of guidance and to reconcile differences among the standards and guidance or discern how they interact with one another, posing a risk that relevant information is misinterpreted or overlooked. The availability of separate guidance for cities and communities (e.g., Global Protocol for Community-Scale Greenhouse Gas Inventories), sector-specific guidance (e.g., A Recommended Methodology for Estimating and Reporting the Potential Greenhouse Gas Emissions from Fossil Fuel Reserves), and other supplemental standards (e.g., Product Life Cycle Accounting and Reporting Standard) may add to the confusion.

We believe now is the time to restructure the full suite of standards and guidance, emulating some of the elements of financial reporting – standards issued by the FASB and IASB – that are being leveraged by the SEC and standard setters such as the ISSB and the European Financial Reporting Advisory Group (EFRAG) in its drafting of the European Sustainability Reporting Standards (ESRS). We recommend that GHG Protocol consider the following elements that in our experience support the effectiveness of standards on any topic:

- Topical delineation – the standards and guidance could be separated among categories such as general topics, scope 1, scope 2, scope 3 reporting, and sector-specific guidance; each topical area could be further divided by subtopic.
- Archetypal organization – for example, each topic could include the purpose, background, recognition, measurement, required disclosures, and optional disclosures, supplemented with the basis for conclusions, case studies, and definitions. This type of organization would facilitate understanding of the core requirements, provide context for the users through background and basis for conclusions, and ensure relevant guidance is not overlooked. In addition, in some cases, elements of the existing content may be more appropriately included as supplemental educational materials, which would further clarify the requirements for users.
- Numbered standards and paragraphs – a common numbering scheme would facilitate referencing and understanding.



Consolidating all relevant emissions reporting guidance into a structured group of standards would also help foster a strong governance and standard-setting environment, further supporting climate objectives and global climate goals. It would also allow for more targeted updates to be made to specific elements of the GHG Protocol without reconsideration of all elements, making it easier for users to understand which elements may have been updated and how.

Third-party standards

We have observed that certain sectors are developing supplemental guidance outside the auspices of GHG Protocol. Leveraging the work of other organizations may have been an effective strategy for GHG Protocol as it sought to expand its available guidance. Ultimately, however, to be the premier standard setter for greenhouse gas emissions reporting, we believe it is important for GHG Protocol to control the development of its standards, thus avoiding potential bias that may be inherent in standards developed by industry groups or others interested in promulgating a specific viewpoint. Ensuring all standards governing emissions reported in accordance with the GHG Protocol's standards and guidance are subject to its own due process would ensure that its suite of standards are robust, independent, and fit for purpose across a broad spectrum of users.

Interoperability

We believe that GHG Protocol's primary responsibility is to establish baseline expectations with respect to the recognition and measurement of greenhouse gas emissions. There are, however, other aspects of reporting greenhouse gas emissions, including materiality, organizational boundaries, presentation (e.g., number of years to be presented, disaggregation of greenhouse gases, scopes to be presented), required disclosures, verification and attestation, and similar matters that may be dictated by other frameworks. For example, the big three proposals all reference GHG Protocol in some manner for recognition and measurement but provide their own guidance on the other matters.

To be most useful to the widest range of preparers, standard setters, regulators, and other stakeholders, we recommend that GHG Protocol structure its guidance such that its recognition and measurement considerations are foundational and applicable in both voluntary and mandatory GHG reporting schemes. The recognition and measurement foundation should be coupled with supplemental guidance that could be applied in the absence of requirements specified by a regulator or another standard setter. These "building blocks" should provide sufficient guidance to support consistent and high quality disclosures for those not reporting under prescriptive frameworks.

For example, the supplemental guidance would include information on the assessment of materiality and acceptable forms of attestation as well as requirements for organizational boundaries, presentation, and disclosure. Other stakeholders may identify additional matters that would also be helpful to ensure consistent and transparent reporting. These elements, where applicable, should leverage similar concepts in financial reporting and other recognized standards such as the International Organization for Standardization environmental management standards (ISO 14000).

We believe this change in structure and approach would enhance GHG Protocol's interoperability with emerging required reporting frameworks, minimizing incremental costs and effort for preparers while continuing to provide sufficient guidance for voluntary reporters.

Organizational boundaries

Determining the appropriate organizational boundaries for emissions reporting is one of the areas of considerable discussion and debate among the big three sustainability proposals. Each of the proposals, however, ties the required organizational boundaries for greenhouse gas emissions reporting in some manner to those used in financial reporting. This movement toward consistency with the financial



statements is consistent with our overall view that alignment between financial reporting and sustainability reporting, where possible, provides more useful and actionable information.

Further, the determination of which entities should be included in a company's consolidated financial statements is based on a significant volume of generally accepted accounting principles that have developed over decades of standard setting. Investors understand the concept of consolidated financial statements and rely on the knowledge that the primary information reported in the statements is reported on the same basis, for the same group of entities. In contrast, the definitions of organizational and operational boundaries outlined in GHG Protocol were designed to standardize greenhouse gas reporting, with a dual benefit of providing information for use by policymakers and architects of GHG programs. Because the guidance was not originally developed in the context of reporting emissions together with financial information, many of the principles are incongruent. In addition, the current optionality within the Corporate Standard diminishes the comparability and usefulness of information across companies.

We believe the general alignment of the big three proposals with the financial reporting guidance is reflective of the current direction of sustainability reporting. As such, we recommend that GHG Protocol eliminate the current options available for the determination of organizational boundaries, coalescing around a model consistent with financial reporting. An added benefit of alignment would be the ability to leverage the years of effort devoted to developing the current consolidation models, allowing GHG Protocol to focus its efforts on other pressing emissions reporting issues.

Notwithstanding this recommendation, if GHG Protocol retains its current approach for determining organizational boundaries, we recommend that it develop enhanced standards and guidance with sufficient flexibility to address the plethora of control situations. For example, we believe guidance on multi-party arrangements should be reconsidered — moving beyond a singular factor such as the party that operates the facility — so that the resulting reporting better reflects the party with the ability to influence decisions impacting emissions over time.

Enhanced data quality

One of the frequent criticisms of greenhouse gas emissions reporting is the uncertainty inherent in the need for extensive estimates. Absent use of a continuous emissions monitoring system, emissions reporting by necessity incorporates some level of estimation. This leads to skepticism among many users, particularly as measurement methodologies — and the related measurements — change over time. Further, limitations in estimation techniques may hinder the ability of companies to meet their emissions reduction targets and other greenhouse gas emissions reductions goals, thus also potentially impacting broader societal climate change objectives.

We believe GHG Protocol is uniquely positioned to make a step change in emissions measurement techniques by more clearly outlining data expectations, requiring use of company-specific information where possible, and continuing to improve the methodologies used. We recommend that GHG Protocol focus on data quality improvement by users as a key tenet of its upcoming standard setting process.

In the interim, we believe that enhanced disclosures will aid users of reported emissions data by allowing better visibility into data strengths and weaknesses. Transparent disclosure of estimation techniques is a theme in financial reporting that has been welcomed by users making financial reporting an effective starting point to identify required disclosures. For example, fair value measurements in the financial statements are supported by detailed disclosures of the degree to which the data is observable and the extent of estimation needed to arrive at the amount of disclosed emissions. The relevant financial statement disclosures are supported by the fair value hierarchy elucidated in Financial Accounting Standards Board Accounting Standard Codification 820, *Fair Value Measurement*, and International Financial Reporting Standard 13, *Fair Value Measurement*. The accounting fair value hierarchy provides



information about the types and quality of the inputs to valuation techniques used to measure fair value, separating such measurements into levels 1, 2, and 3. We believe a similar disclosure framework — based on factors and techniques of relevance in emissions measurement — would provide transparency and aid both preparers and users by promoting understandability.

We also recommend that GHG Protocol require enhanced disclosure about the key methodologies, assumptions, and estimates used in developing a company’s greenhouse gas inventory (e.g., organizational boundaries considered, emissions factors used). Additional disclosures may help bridge the expectations gap of users, who are keen to understand the extent of management judgment underlying reported emissions.

Scope 3 emissions

By definition, scope 3 emissions are indirect and encompass emissions outside the direct control of the company. Scope 3 emissions disclosures are typically the most challenging to prepare and understand, given the often broad scope of a company’s value chain and its varying degrees of influence over emissions. We acknowledge, however, that scope 3 emissions represent an important element of a company’s overall carbon footprint.

To balance the importance of these disclosures with providing more decision-useful information, we recommend revising the scope 3 standard to better differentiate emissions over which a company has a degree of influence, with differentiated disclosures depending on the degree. For example, a large company may have visibility into the emissions of its suppliers and may be able to exert pressure to reduce those emissions in the future, whereas a small company may have limited visibility or influence, providing less useful information. Further, depending on a company’s location in the value chain, it may have limited or no influence over the use and disposal of its products, and disclosures based solely on conjecture would not serve the interest of the company or its stakeholders.

Thus, we recommend that GHG Protocol rethink the depth and breadth of scope 3 disclosures and consider requiring a company to disclose its relative degree of influence over the entities generating such emissions. In addition, we would support disclosure of ranges when a company has more limited influence and there are multiple alternate scenarios.

* * * * *

If you have any questions, please contact Henry Daubeney at henry.daubeney@pwc.com, Heather Horn at heather.horn@pwc.com, or Andreas Ohl at andreas.ohl@pwc.com.

Yours faithfully,

Henry Daubeney
Global Chief Accountant and Head of Reporting

Corporate Accounting and Reporting Standard survey

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 Corporate Standard Survey Memo and that you consent to the data disclosure agreements outlined in the Process Memo.*

- Yes**
 No

RESPONDENT INFORMATION

2. *Name*

Henry Daubeney

3. *Organization*

PricewaterhouseCoopers

4. *Country*

“PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL), each of which is a separate and independent legal entity. With offices in 152 countries and almost 328,000 people, PwCIL is among the leading professional services networks in the world. Following consultation with members of the PricewaterhouseCoopers network of firms, our survey response summarizes the views of those member firms that commented on the survey.

5. *Email address*

henry.daubeney@pwc.com

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)

PwC’s corporate sustainability group prepares a greenhouse gas inventory in accordance with the Greenhouse Gas Protocol and issues a climate report on behalf of the global firm. In addition, many of our firms issue climate reports in line with their jurisdictional requirements. Our responses to the survey, however, are primarily informed by our interactions with clients and investors as well as our history of engagement and proactive thought leadership on ESG matters.

We have also prepared a [summary letter](#) to highlight our most significant recommendations.

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

- Yes
- No
- Not applicable
- Other (please specify)**

Please refer to our response to question 7.

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
- Industry group
- Non-profit organization/NGO/civil society
- Provider of data or product related to GHG inventories
- Other (please specify)**

Please refer to our response to question 7.

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

11. *Does your company/organization use the Greenhouse Gas Protocol Corporate Standard to develop its greenhouse gas inventory?*

- Yes
- No
- Not sure
- Not applicable (my company/organization does not have a greenhouse gas inventory)
- Other (please specify)**

Please refer to our response to question 7.

12. *How satisfied are you with the current GHG Protocol Corporate Standard?*

- 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 Corporate Standard?*

- 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.*

In preparing our responses to the GHG Protocol's request for input, we noted certain pervasive points impacting broad application of the emissions guidance. We believe addressing these holistic points as a priority would enhance consistency and comparability, the quality of information reported, as well as the relevance and transparency of emissions information prepared in accordance with the GHG Protocol. These broad proposals are as follows:

Purpose and governance

Greenhouse Gas (GHG) Protocol is one of the most widely known and applied sustainability frameworks. Sustainability reporting, however, has evolved substantially since GHG Protocol was launched more than 20 years ago. Not only is there increasing global urgency around greenhouse gas reductions, but greenhouse gas data is being used by a growing array of stakeholders to assess the contribution of individual companies to global warming, as well as to measure their success in transitioning to lower carbon business models. Further, the increasing integration of sustainability

information — including greenhouse gas emissions data — with financial information as well as its increasing prominence requires reporting standards with enhanced rigor, flexibility, and clarity.

In response, we believe that GHG Protocol should consider strategic, structural, and technical changes to maintain quality and relevance in light of its increasing importance to a broader group of stakeholders. Our recommendations in the areas of purpose, governance, organization of the reporting standards, interoperability, and data quality are summarized in the [governance matters template](#).

Alignment with financial reporting

The GHG Protocol's principles are derived in part from generally accepted accounting and reporting principles. Further, GHG emissions information is also often presented in parallel with financial information, and as such, we believe there is a need for enhanced alignment with financial reporting principles. In addition, there are numerous topics impacting recognition and measurement of greenhouse gas emissions that are not currently addressed in the standards. Leveraging the related financial reporting concepts, where applicable, would allow GHG Protocol to focus on other areas of emissions reporting.

Please refer to our [financial reporting template](#) for more detailed recommendations with respect to the consideration of cut off and subsequent events, structural changes, measurement policies and estimates, and errors.

Emerging technologies

New technologies and techniques that advance decarbonization (e.g., sustainable aviation fuel, hydrogen, agricultural commodities, recycling innovations) may impact how emissions are calculated and reported. Ensuring that calculation and reporting methodologies reflect the current stages of market developments requires a collaborative effort with various stakeholders. We believe this is critical to ensuring that the GHG Protocol's guidance progresses in line with the state of the emission landscape. Therefore, we recommend that GHG Protocol establish formal processes to monitor developing technologies and evolutions in access to information. Further, GHG Protocol should formally evaluate the impact of these technological advances on scope 1, scope 2, and scope 3 GHG reporting, incorporating additional interpretive guidance in its standards as applicable.

Other

We also provided a proposal related to emissions tracking over time in our [tracking emissions over time template](#).

We have included additional, more detailed recommendations in our responses to the other questions in this survey.

15. *Does your company/organization or industry face any specific challenges in complying with the GHG Protocol Corporate Standard requirements and guidance? If yes, please describe each challenge and the solutions you would propose for addressing the challenge. You may enter brief comments here or submit a more detailed proposal using the proposal template.*

See our response to question 14.

16. *Does your company/organization or industry require additional industry-specific guidance related to the Corporate Standard for developing a GHG inventory? If yes, please describe what is needed.*

We believe that GHG Protocol should prioritize industry-agnostic standards that have sufficient flexibility to address matters arising across a multitude of use cases. We recognize, however, that there are certain industry-specific situations where additional clarity would aid consistency and transparency of reporting. To address these concerns, we recommend that the standards and guidance incorporate more practical application examples, spanning a range of industries. For example, it would be helpful to illustrate how the scope should be determined for common and

recurring situations such as commercial real estate, oil rigs, power plants, principal-agent transactions, and other multi-party arrangements.

ORGANIZATIONAL BOUNDARIES

17. Which consolidation approach does your company/organization use to define your organizational boundaries? (Please skip this question if your company/organization does not have a GHG inventory.)

- Operational control
- Financial control
- Equity share
- Not sure
- Other (please specify)**

PwC is a global network of separate legal entities. None of the consolidation approaches prescribed by the Corporate Standard appropriately capture PwC's corporate structure. Our global climate report adopts an approach that achieves pragmatic alignment with the consolidation approaches recognized by GHG Protocol. Individual network firms, however, may select different approaches in their separate sustainability reporting.

18. Do you propose revisiting or making any changes to the current requirements and guidance on organizational boundaries? (Reference: GHG Protocol Corporate Standard, chapter 3, "Setting Organizational Boundaries," which allows companies to choose one of the following consolidation approaches: operational control, financial control, equity share).

- Yes**
- No
- No opinion/not sure

19. Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.

Determining the appropriate organizational boundaries for emissions reporting is one of the areas of considerable discussion and debate among the big three sustainability proposals. Each of the proposals, however, ties the required organizational boundaries for greenhouse gas emissions reporting in some manner to those used in financial reporting. This movement toward consistency with the financial statements is consistent with our overall view that alignment between financial reporting and sustainability reporting, where possible, provides more useful and actionable information.

Further, the determination of which entities should be included in a company's consolidated financial statements is based on a significant volume of generally accepted accounting principles that have developed over decades of standard setting. Investors understand the concept of consolidated financial statements and rely on the knowledge that the primary information reported in the statements is reported on the same basis, for the same group of entities. In contrast, the definitions of organizational and operational boundaries outlined in GHG Protocol were designed to standardize greenhouse gas reporting, with a dual benefit of providing information for use by policymakers and architects of GHG programs. Because the guidance was not originally developed in the context of reporting emissions together with financial information, many of the principles are incongruent. In addition, the current optionality within the Corporate Standard diminishes the comparability and usefulness of information across companies.

We believe the general alignment of the big three proposals with the financial reporting guidance is reflective of the current direction of sustainability reporting. As such, we recommend that GHG

Protocol eliminate the current options available for the determination of organizational boundaries, coalescing around a model consistent with financial reporting. An added benefit of alignment would be the ability to leverage the years of effort devoted to developing the current consolidation models, allowing GHG Protocol to focus its efforts on other pressing emissions reporting issues. The impact of adopting a financial reporting approach for determination of organizational boundaries would be to report 100% of the GHG emissions of a consolidated subsidiary as part of the reporting entity's emissions. When an entity is not controlled (e.g., joint arrangements, equity investees, and associates), an equity share approach would apply such that the consolidated entity would report its proportionate share of the emissions (e.g., 25% of the noncontrolled entity's emissions if the reporting entity holds a 25% ownership interest).

Notwithstanding this recommendation, if GHG Protocol retains its current approach for determining organizational boundaries, we recommend that it develop enhanced standards and guidance with sufficient flexibility to address the plethora of control situations. For example, we believe guidance on multi-party arrangements should be reconsidered — moving beyond a singular factor such as the party that operates the facility — so that the resulting reporting better reflects the party with the ability to influence decisions impacting emissions over time. The types of arrangements that should be addressed include outsourcing or supply chain functions, complex contractual arrangements, and investment company relationships as well as scenarios in which an entity has the power to replace the operator or where the operator requires consent of another party to perform its functions.

OPERATIONAL BOUNDARIES

20. *Do you propose revisiting or making any changes to the current requirements and guidance on operational boundaries? (Reference: GHG Protocol Corporate Standard, chapter 4, "Setting Operational Boundaries," which defines scope 1, scope 2, and scope 3 emissions. Under the Corporate Standard, scope 1 and scope 2 are required at a minimum, while scope 3 is optional. Under the GHG Protocol Scope 3 Standard, scope 1, scope 2, and scope 3 emissions are required, with any exclusions required to be disclosed and justified).*

- Yes**
 No
 No opinion/not sure

21. *Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.*

See our response to question 19.

22. *Do you propose revisiting or making any changes to the current requirements and guidance on leased assets? (Reference: "Categorizing GHG emissions from leased assets" available at <https://ghgprotocol.org/corporate-standard>)*

- Yes**
 No
 No opinion/not sure

23. *Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.*

The Corporate Standard's current requirements and guidance on leased assets relies, in part, on the classification of the lease under generally accepted accounting principles. Subsequent to development of this guidance, however, the IFRS and US GAAP standards for accounting for leases were changed, impacting how leases are accounted for and reported in the financial statements.

A contract is accounted for as a lease if it conveys the right to control the use of an identified asset. Control is determined by assessing whether the customer has (1) the right to obtain substantially all of the economic benefits from use of the asset and (2) the right to direct its use. Except in limited circumstances, all leases are now recognized as assets on the lessee's balance sheet. Based on the updated definition of a lease, a lessee has control of its leased assets and thus should be reporting the related emissions as either scope 1 or scope 2 as applicable. Further, the lessor no longer has control and should be reporting emissions from leased assets as scope 3. As such, we recommend that GHG Protocol modify its existing guidance on leases to reflect these changes.

In providing our recommendation, we acknowledge that the accounting guidance provides certain practical expedients that may impact application of the model outlined above (e.g., certain leases may be excluded from the balance sheet because the term is less than a year or they are immaterial). Consistent with our broader view that alignment between sustainability and financial reporting is preferable where possible, we recommend that the revised guidance require entities to apply practical expedient elections consistently. Therefore, when the short term lease exception is applied, we believe that the emissions associated with those leased assets would not be reported by the lessee.

Further, we note that reporting entities may follow local financial reporting standards with differing definitions of leases. We believe the overall model outlined above (i.e., that the classification of emissions for leased assets should follow the financial reporting treatment) should apply without regard to the accounting principles applied.

TRACKING EMISSIONS OVER TIME

24. *Do you propose revisiting or making any changes to the current requirements and guidance on tracking emissions over time? (Reference: GHG Protocol Corporate Standard, chapter 5, "Tracking Emissions Over Time," which provides requirements and guidance on choosing a base year and recalculating base year emissions for significant changes in the inventory to enable consistent tracking of emissions over time.)*

- Yes**
 No
 No opinion/not sure

25. *Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.*

Please refer to our detailed comments within the [tracking emissions over time template](#).

VERIFICATION/ASSURANCE

26. *Do you propose revisiting or making any changes to the current requirements and guidance on verification or assurance? (Reference: GHG Protocol Corporate Standard, chapter 10, "Verification of GHG Emissions," under which verification or assurance is recommended but not required.)*

- Yes**
 No
 No opinion/not sure

27. *Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.*

The Corporate Standard includes guidance related to the recognition and measurement of GHG emissions as well as additional perspective on numerous other matters, including verification and assurance. As noted, we believe that topics such as verification and assurance may be dictated by

regulators and other standard setters. Nonetheless, this guidance may continue to be important to companies reporting outside a mandatory reporting scheme or other framework.

Our response to this question is informed by this perspective, however, in general, we believe that verification and assurance are topics outside of the GHG Protocol’s core areas of expertise. Further, there are other standard setters addressing topics such as internal control over sustainability matters as well as attestation requirements. For example, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) – which produced highly regarded and widely used guidance on internal control over financial reporting – is developing supplemental guidance in the areas of sustainability and ESG.³ And, organizations such as the American Institute of Certified Public Accountants (AICPA) and the International Auditing and Assurance Standards Board (IAASB) have issued guidance around reasonable and limited assurance of GHG emissions.

If GHG Protocol retains guidance in this area, we recommend that it more clearly distinguish between verification and assurance. Further, we believe the “verification” guidance may be more clearly deemed internal control and that the guidance should focus on the process and controls around gathering and reporting of emissions information through the lens of preparers of such information. This guidance should elaborate on the quality principles and parameters to provide clarity and guidance with respect to internal quality control over GHG emissions information gathering and reporting. If retained, we recommend expansion of the “third-party assurance” discussion to include specific guidance regarding the qualifications and independence of third-party assurance practitioners.

OTHER TOPICS

28. *Do you propose revisiting, making any changes, or clarifying any other topics, requirements, or guidance in the Corporate Standard?*

- Yes**
 No
 No opinion/not sure

29. *Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.*

In our experience working with the Corporate Standard, we have identified several areas where additional clarity would aid preparers in application of the guidance, improving the quality of the information reporting and leading to enhanced comparability across entities. In addition to our other recommendations noted in our responses to this survey, we recommend changes in the areas noted below.

Materiality

As discussed in the “Interoperability” section of our response to question 4 in the related [governance matters template](#), we recommend GHG Protocol supplement its foundational recognition and measurement guidance with guidance that could be applied in the absence of requirements specified by a regulator or another standard setter. These “building blocks” should provide sufficient guidance to support consistent and high quality disclosures for those not reporting under prescriptive frameworks.

One of these “building blocks” is materiality. The Corporate Standard discusses materiality in varying contexts, both from a preparation and a verification perspective. This guidance, however, does not provide sufficient context or clarity for a preparer seeking to determine relevant materiality factors in

³ [COSO Board Approves Study on Sustainability/ESG](#)

emissions reporting. Additional guidance in this area would benefit both voluntary GHG reporters as well as those subject to specific jurisdictional requirements.

Under longstanding financial reporting principles, materiality assessments require consideration of quantitative and qualitative factors in the context of the needs of investors and other relevant circumstances. Some sustainability standards and requirements also focus on investors while others incorporate the concept of “double materiality,” expanding to other stakeholders.

We recommend that GHG Protocol establish a framework outlining the relevant factors to be considered in the assessment of materiality for emissions reporting, such as the degree of precision attainable with respect to calculating emissions and the risk of material misstatement. These factors should consider the potential users of the information and the relevant stakeholders.

Offsets

Many companies incorporate the use of carbon offsets in their GHG emissions reduction strategies in an effort to reduce their reported emissions. We strongly support the Corporate Standard’s current requirement that GHG emissions must be reported on a gross basis. Given the proliferation of various carbon offsets, however, we believe GHG Protocol should strengthen its guidance in this area as follows:

- Gross presentation — the guidance related to gross presentation of GHG emissions should be included as a reporting requirement, rather than a footnote as currently written.
- Robust disclosure — required disclosures should include the source of the carbon offset, how offsets are used in the company’s emissions reductions strategies, and information about the quality of the offset, including the applicable verifier or registry.
- Quality criteria — GHG Protocol should establish minimum quality criteria for purchased offsets that are aligned with those established for energy attribute certificates (EACs).
- Vintage and retirement — we believe GHG Protocol should establish guidelines around the vintage of offsets that may be claimed as well as requirements for their timely retirement (e.g., within two months of the end of the related reporting period).

These recommendations would improve the quality of information reported, enhancing comparability and ensuring transparent and robust disclosure of a company’s carbon impact, irrespective of its use of carbon offsets and similar instruments.

30. *Are there existing resources, tools, or databases developed by other organizations (which are in conformance with the Corporate Standard) that you would suggest that GHG Protocol references to support companies in applying the Corporate Standard?*

We do not recommend that GHG Protocol make reference to any resources, tools, or databases developed by other organizations. We believe it is critical that the GHG Protocol’s standards stand alone to provide a complete source of guidance on greenhouse gas emissions reporting.

We have observed that certain sectors are developing supplemental guidance outside the auspices of GHG Protocol. Leveraging the work of other organizations may have been an effective strategy for GHG Protocol as it sought to expand its available guidance. Ultimately, however, to be the premier standard setter for greenhouse gas emissions reporting, we believe it is important for GHG Protocol to control the development of its standards, thus potentially avoiding bias that may be inherent in standards developed by industry groups or others interested in promulgating a specific viewpoint. Ensuring all standards governing emissions reported in accordance with the GHG Protocol’s standards and guidance are subject to its own due process would ensure that its suite of standards are robust, independent, and fit for purpose across a broad spectrum of users.

31. Are there new resources, tools, or databases that you think need to be developed to support companies in applying the Corporate Standard?

One of the challenges we observe in applying the GHG Protocol is difficulty in determining the applicable requirements and understanding how the various standards and guidance interact with each other. We believe that restructuring the full suite of standards and guidance to enhance their usefulness and effectiveness should be one of the GHG Protocol's highest priorities. Please refer to the "Organization of the reporting standards" section of our response to question 4 in the related [governance matters template](#), for our detailed recommendations.

QUESTIONS FOR PROGRAMS/POLICYMAKERS

(This section is intended for programs, initiatives, policymakers, or regulators using GHG Protocol standards)

32. Are you applying the Corporate Standard in the context of your program? If so, please explain.

Not applicable.

33. 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?

Not applicable.

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

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.*

This proposal is general and cross-cutting. It applies broadly to governance of GHG Protocol and also includes broad recommendations to enhance the relevance and operability of the scope 1, scope 2, and scope 3 standards. The recommendations included herein are also provided in a [summary letter](#) we prepared to highlight our most significant recommendations.

In addition to this proposal, we provided detailed responses to the [Corporate Accounting and Reporting Standard survey](#), the [Scope 2 Guidance survey](#), and the [Scope 3 Standard and Scope 3 Calculation Guidance survey](#).

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

Please refer to our response to question 1.

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

The cross-cutting recommendations outlined herein are intended to assist GHG Protocol in establishing and maintaining its relevance in order for its standards to meet the evolving needs of the users of GHG emissions information. We recommend reassessing the purpose of GHG Protocol, investing in its governance and organizational structure, and realigning its guidance to meet the needs and expectations of its growing and diverse stakeholder base.

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

This proposal template supplements our survey responses to provide an overview of our broad points for consideration as GHG Protocol contemplates updates and changes to its guidance.

Purpose

GHG Protocol is one of the most widely known and applied sustainability reporting frameworks. Even as ESG reporting continues to increase in prominence with proposed disclosures from the European Union as part of the Corporate Sustainability Reporting Directive (CSRD), internationally by the International Sustainability Standards Board (ISSB), and in the United States by the Securities and Exchange Commission (SEC), the criticality of GHG Protocol is reinforced by its incorporation in each of these “big three” proposals. The *GHG Protocol Corporate Standard* (the Corporate Standard) was created for this purpose, as a common standard intended to “improve[] the consistency, transparency, and understandability of reported information.”⁴

Sustainability reporting, however, has evolved substantially since the GHG Protocol was launched more than 20 years ago. Not only is there increasing global urgency around greenhouse gas reductions, but greenhouse gas data is being used by a growing array of stakeholders to assess the contribution of individual companies to global warming and to measure their success in transitioning to lower carbon business models. Further, the increasing integration of sustainability information — including greenhouse gas emissions data — with financial information, as well as its increasing prominence, requires standards with enhanced rigor, flexibility, and clarity. In response, we believe that GHG Protocol should consider strategic, structural, and technical changes to maintain the quality and relevance of its guidance in light of its increasing importance to a broader group of stakeholders.

As a first step, we recommend that GHG Protocol redefine its purpose — with more specific recognition of the needs of multiple stakeholders and without bias or tailoring for a particular user group. Given continuous development in the emissions reporting environment, we believe it is critical that GHG Protocol recognize that its standards are referenced and used beyond the scope of environmental science, further supporting the need to prepare standards through a lens of stakeholder neutrality. Developing a statement of purpose reflective of a broader mission and expanded usage alongside financial reporting will ensure that the protocol remains relevant and flexible as reporting frameworks continue to evolve.

We also have overarching recommendations in the areas of governance, organization of the reporting standards, interoperability, and enhanced data quality as discussed below.

Governance

The reporting of financial information has developed over decades, building credibility through a high-functioning ecosystem of players — including management, corporate directors, auditors, standard setters, and regulators — working together for the benefit of financial statement users. While the financial reporting ecosystem had decades to achieve a robust common framework, parties in the ESG ecosystem will need to emulate this progress at a dramatically accelerated pace to effectively meet the burgeoning demand for sustainability information.

Because its standards are the linchpin of emissions reporting, GHG Protocol is a crucial player in the future of credible, reliable sustainability information. Accurate greenhouse gas reporting is integral to achieving emissions reduction targets, monitoring emissions activity by governments and regulatory agencies, understanding the impact of corporate actions, and informing investment and similar decisions. The more than 20 years already invested by GHG Protocol provide it with a strong foundation of reporting requirements; however, we believe changes are needed to more formally embrace its role as a credible and established international standard setter. By formalizing its operational practices and policies related to the development of standards, GHG Protocol would build

⁴ [*GHG Protocol Corporate Standard*](#), page 3

Proposal template: Governance and oversight

trust in the emissions reporting environment, enhancing transparency and allowing users to rely on and apply its guidance consistently.

In our experience, elements of high-quality standard setting include:

- An oversight board comprised of key stakeholders
- A standard setting board with relevant expertise (e.g., engineering, sustainability reporting, standard setting)
- Formal due process over issuance of new standards
- Post implementation review
- Process for continuous updates and maintenance
- Competent staff from all relevant disciplines in sufficient number to achieve the objectives of the organization
- Independent source of funding

We also believe that there is value in developing a mechanism for interpretative guidance, similar to the Emerging Issues Task Force of the Financial Accounting Standards Board (FASB) or the IFRS Interpretations Committee of the International Accounting Standards Board (IASB). An implementation and interpretation group — with representatives drawn from a cross section of GHG Protocol’s constituencies, including preparers, environmental scientists, auditors and greenhouse gas attest providers, standard setters, regulators, and others — would improve the consistency and quality of emissions disclosures while providing a resource to preparers as the expectations of users continue to escalate.

In addition, the heightened focus on emissions reporting creates an increase in expectations for GHG Protocol to address and resolve related reporting issues (e.g., estimation techniques, measurement methodologies) as well as to continue to evolve with changing user expectations. To support the effective reporting of emissions, we strongly believe there is a need for GHG Protocol to invest in its own organizational structure, ensuring that relevant expertise and capital are dedicated to the improvement and maintenance of its reporting standards. This investment will provide returns to all stakeholders in the sustainability reporting ecosystem.

Organization of the reporting standards

As greenhouse gas emissions reporting continues to increase, so too will the need for complete, clear, and actionable guidance. GHG Protocol’s current guidance — including the Corporate Standard, the Scope 2 Guidance, and the Corporate Value Chain (Scope 3) Accounting and Reporting Standard — developed over time and intermingles background information, case studies, definitions, required and optional disclosures, and more. Further, in some cases it may be difficult for a user to identify the appropriate source of guidance and to reconcile differences among the standards and guidance or discern how they interact with one another, posing a risk that relevant information is misinterpreted or overlooked. The availability of separate guidance for cities and communities (e.g., Global Protocol for Community-Scale Greenhouse Gas Inventories), sector-specific guidance (e.g., A Recommended Methodology for Estimating and Reporting the Potential Greenhouse Gas Emissions from Fossil Fuel Reserves), and other supplemental standards (e.g., Product Life Cycle Accounting and Reporting Standard) may add to the confusion.

We believe now is the time to restructure the full suite of standards and guidance, emulating some of the elements of financial reporting — standards issued by the FASB and IASB — that are being leveraged by the SEC and standard setters such as the ISSB and the European Financial Reporting Advisory Group (EFRAG) in its drafting of the European Sustainability Reporting Standards (ESRS). We recommend that GHG Protocol consider the following elements that in our experience support the effectiveness of standards on any topic:

- Topical delineation — the standards and guidance could be separated among categories such as general topics, scope 1, scope 2, scope 3 reporting, and sector-specific guidance; each topical area could be further divided by subtopic.

Proposal template: Governance and oversight

- Archetypal organization — for example, each topic could include the purpose, background, recognition, measurement, required disclosures, and optional disclosures, supplemented with the basis for conclusions, case studies, and definitions. This type of organization would facilitate understanding of the core requirements, provide context for the users through background and basis for conclusions, and ensure relevant guidance is not overlooked. In addition, in some cases, elements of the existing content may be more appropriately included as supplemental educational materials, which would further clarify the requirements for users.
- Numbered standards and paragraphs — a common numbering scheme would facilitate referencing and understanding.

Consolidating all relevant emissions reporting guidance into a structured group of standards would also help foster a strong governance and standard-setting environment, further supporting climate objectives and global climate goals. It would also allow for more targeted updates to be made to specific elements of the GHG Protocol without reconsideration of all elements, making it easier for users to understand which elements may have been updated and how.

Interoperability

We believe that GHG Protocol's primary responsibility is to establish baseline expectations with respect to the recognition and measurement of greenhouse gas emissions. There are, however, other aspects of reporting greenhouse gas emissions, including materiality, organizational boundaries, presentation (e.g., number of years to be presented, disaggregation of greenhouse gases, scopes to be presented), required disclosures, verification and attestation, and similar matters that may be dictated by other frameworks. For example, the big three proposals all reference GHG Protocol in some manner for recognition and measurement but provide their own guidance on the other matters.

To be most useful to the widest range of preparers, standard setters, regulators, and other stakeholders, we recommend that GHG Protocol structure its guidance such that its recognition and measurement considerations are foundational and applicable in both voluntary and mandatory GHG reporting schemes. The recognition and measurement foundation should be coupled with supplemental guidance that could be applied in the absence of requirements specified by a regulator or another standard setter. These "building blocks" should provide sufficient guidance to support consistent and high quality disclosures for those not reporting under prescriptive frameworks.

For example, the supplemental guidance would include information on the assessment of materiality and acceptable forms of attestation as well as requirements for organizational boundaries, presentation, and disclosure. Other stakeholders may identify additional matters that would also be helpful to ensure consistent and transparent reporting. These elements, where applicable, should leverage similar concepts in financial reporting and other recognized standards such as the International Organization for Standardization environmental management standards (ISO 14000).

We believe this change in structure and approach would enhance GHG Protocol's interoperability with emerging required reporting frameworks, minimizing incremental costs and effort for preparers while continuing to provide sufficient guidance for voluntary reporters.

Enhanced data quality

One of the frequent criticisms of greenhouse gas emissions reporting is the uncertainty inherent in the need for extensive estimates. Absent use of a continuous emissions monitoring system, emissions reporting by necessity incorporates some level of estimation. This leads to skepticism among many users, particularly as measurement methodologies — and the related measurements — change over time. Further, limitations in estimation techniques may hinder the ability of companies to meet their emissions reduction targets and other greenhouse gas emissions reductions goals, thus also potentially impacting broader societal climate change objectives.

We believe GHG Protocol is uniquely positioned to make a step change in emissions measurement techniques by more clearly outlining data expectations, requiring use of company-specific information where possible, and continuing to improve the methodologies used. We recommend that GHG

Proposal template: Governance and oversight

Protocol focus on data quality improvement by users as a key tenet of its upcoming standard setting process.

In the interim, we believe that enhanced disclosures will aid users of reported emissions data by allowing better visibility into data strengths and weaknesses. Transparent disclosure of estimation techniques is a theme in financial reporting that has been welcomed by users making financial reporting an effective starting point to identify required disclosures. For example, fair value measurements in the financial statements are supported by detailed disclosures of the degree to which the data is observable and the extent of estimation needed to arrive at the amount of disclosed emissions. The relevant financial statement disclosures are supported by the fair value hierarchy elucidated in Financial Accounting Standards Board Accounting Standard Codification 820, *Fair Value Measurement*, and International Financial Reporting Standard 13, *Fair Value Measurement*. The accounting fair value hierarchy provides information about the types and quality of the inputs to valuation techniques used to measure fair value, separating such measurements into levels 1, 2, and 3. We believe a similar disclosure framework — based on factors and techniques of relevance in emissions measurement — would provide transparency and aid both preparers and users by promoting understandability.

We also recommend that GHG Protocol require enhanced disclosure about the key methodologies, assumptions, and estimates used in developing a company's greenhouse gas inventory (e.g., organizational boundaries considered, emissions factors used). Additional disclosures may help bridge the expectations gap of users, who are keen to understand the extent of management judgment underlying reported emissions.

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*

Our proposal seeks to further all of the GHG Protocol accounting and reporting principles as discussed in further detail in question 4.

- 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.*

We believe it is critical that GHG Protocol's standards provide a complete and central source of guidance for any stakeholders who apply it. We believe that disaggregation of the guidance poses a risk that stakeholders may not be aware of, and therefore not apply, the guidance in its complete form. By consolidating all relevant emissions reporting guidance into a single core standard, GHG Protocol's standards and guidance would foster a strong governance and standard-setting environment, further supporting climate objectives and global climate goals. See further discussion in our response to question 4.

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

Proposal template: Governance and oversight

- *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)?*

We believe that formalizing its operational processes and policies as well as ensuring standards are relevant, up-to-date, and interoperable with intersecting frameworks would enable GHG Protocol's standards and guidance to foster transparency and consistency within the sustainability reporting environment and further support global climate goals.

- 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?*

Our objective in making this proposal is to ensure that GHG Protocol maintains its ability to accommodate and be accessible to all organizations globally seeking to use its standards. Further, it would enhance its interoperability with other sustainability standards frameworks. Specific benefits of the proposal are included in our response to question 4.

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

Not applicable.

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

Please refer to our response to question 4.

- 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.*

Not applicable.

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

“PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL), each of which is a separate and independent legal entity. With offices in 152 countries and almost 328,000 people, PwCIL is among the leading professional services networks in the world. Following consultation with members of the PricewaterhouseCoopers network of firms, our survey response summarizes the views of those member firms that commented on the survey. Our response is informed by our interactions with clients and investors and our history of engagement and proactive thought leadership on ESG matters.

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

Not applicable.

Proposal template: Alignment with financial reporting principles

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

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.*

This proposal is general and cross-cutting. It applies broadly to recognition and measurement and is intended to improve the relevance and operability of the scope 1, scope 2, and scope 3 standards.

In addition to this proposal, we provided detailed responses to the [Corporate Accounting and Reporting Standard survey](#), the [Scope 2 Guidance survey](#), and the [Scope 3 Standard and Scope 3 Calculation Guidance survey](#).

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

Please refer to our response to question 1.

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

GHG Protocol is currently the most widely used framework for emissions measurement and reporting and from our experience, most companies rely on its guidance in preparing their emissions disclosures. Historically, these disclosures have typically been provided as part of a company's sustainability report. Companies may also provide emissions information as part of environmental regulatory filings. Recent sustainability reporting proposals in multiple jurisdictions – from the European Union as part of the Corporate Sustainability Reporting Directive (CSRD), internationally by the International Sustainability Standards Board (ISSB), and in the United States by the Securities and Exchange Commission (SEC) – would further increase the prominence of GHG emissions reporting by requiring disclosure together with the financial statements.

Proposal template: Alignment with financial reporting principles

Standards issued by the Financial Accounting Standards Board and International Accounting Standards Board, as well as jurisdictional rules and regulations (e.g., SEC rules for public companies in the United States), provide a common language for users to understand the overall financial reporting framework applied. This uniformity enhances the usefulness of the financial statements and allows companies to more effectively convey information. We believe application of a common methodology in the calculation of greenhouse gas emissions would provide similar benefits.

Financial accounting and reporting principles are well established and may serve as an effective basis when developing guidelines on a myriad of topics that may not have historically been addressed by GHG Protocol. The principles in GHG Protocol's standards are derived in part from generally accepted financial accounting and reporting principles. We believe that GHG Protocol should expand that alignment to enhance comparability across companies and jurisdictions. This commonality will aid users of both financial reporting and GHG information. Further, evaluating the related financial reporting guidance and leveraging it where applicable is more efficient, providing GHG Protocol with additional bandwidth to address other emissions-specific reporting issues.

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

We recommend that GHG Protocol evaluate the applicability of financial reporting concepts in certain overarching areas applicable to a broad range of transactions as highlighted below. We believe incorporation of this guidance would improve operability for preparers and enhance useability for stakeholders by improving consistency and comparability across companies.

Events after the end of the reporting period

Information about activities, facts, and circumstances that occurred during the reporting period may become available after the reporting period ends. The current standards lack guidance with respect to evaluating the impact of subsequent events on emissions reporting and disclosure. We recommend that GHG Protocol incorporate guidance that outlines principles on how events occurring after the reporting period end should be analyzed and accounted for in the GHG emissions reporting. Specifically, we recommend that GHG Protocol leverage the related guidance for financial reporting as follows:

- Material subsequent events or transactions that provide additional information about conditions that existed at the reporting date, including the estimates inherent in preparing emissions reporting, should be reflected in the GHG emissions reported during the current period.
- Material subsequent events or transactions that provide information about conditions that did not exist at the reporting date but arose subsequent to that date should not be included in the emissions reported during the current period, but should be disclosed in that period.

These general concepts are consistent with the guidance for financial reporting discussed in ASC 855, *Subsequent Events*, and IAS 10 *Events After the Reporting Period*. Further, we believe GHG Protocol should consider whether there are any unique fact patterns that should be evaluated to assess whether the general model is applicable and appropriate. Examples and application guidance in this area would also aid preparers.

Measurement policies

Defining and disclosing policies for GHG measurement and estimates is essential. GHG emissions are often calculated using indirect measurement techniques utilizing a wide range of estimates and assumptions. GHG measurement estimates involve uncertainty and often require management to make subjective assumptions. We note that GHG Protocol does not distinguish between a GHG measurement estimate and a GHG measurement policy. Generally, stakeholders view estimates and policies differently, and a lack of clarity can be confusing to users and make applying the guidance more challenging. Accordingly, we believe that changes in measurement policies and estimates should be accounted for and disclosed differently.

Proposal template: Alignment with financial reporting principles

We believe that GHG measurement policies are objective principles that establish the basis for a consistent and repeatable process for reporting GHG information. Examples of GHG emission policies would include the organizational boundary approach or calculation methodology selected. Chapter 9, *Reporting GHG Emissions*, requires disclosure of specific information about the organizational boundaries, operational boundaries, and methodologies used to calculate emissions. We recommend that this guidance be expanded to require that reporting entities also disclose details about all significant measurement policies, including describing key judgments made in applying the selected policy.

Reporting entities may change the selected measurement policies for various reasons, including preferability and consistency with industry peers. If a reporting entity changes a GHG measurement policy, we recommend that the Corporate Standard require that reporting entities:

- disclose changes in the measurement policy,
- restate comparative information using the new measurement policy, unless immaterial, and
- disclose key material factors supporting the rationale for the change.

Measurement estimates

GHG measurement estimates are used in developing a GHG inventory and involve uncertainty, often requiring management to make subjective assumptions. Examples of GHG estimates include assumptions used to determine activity data or emission factors when applying a selected calculation methodology. We recommend that GHG Protocol add requirements to provide specific disclosures about the significant inputs and assumptions used to calculate GHG emissions. Such disclosures should include information on emissions factors used, including their source.

In addition, changes in estimates may result from new information that reduces uncertainty associated with assumptions used in calculations and impacts reported information on a prospective basis. We believe the guidance applied to estimates in the financial statements provides a useful point of reference in developing a framework for estimating greenhouse gas emissions. Specifically, we recommend that the Corporate Standard require reporting entities to:

- update the initial estimates in (1) the period of change or (2) the period of change and future periods if the change affects both,
- disclose information on the nature of material changes in estimation methodologies, and
- disclose the rationale for such change.

We recognize that there may be situations when additional information about greenhouse gas estimates becomes available after the reporting period. Restating previously reported information that was prepared using all available information, however, may result in confusion for the users of the information without providing material benefit.

Errors

GHG Protocol does not provide either qualitative or quantitative factors to assist preparers in assessing whether a material misstatement has occurred. We believe that this guidance would be important as errors may have broad implications, including on previously reported information.

Chapter 5 of the Corporate Standard, *Tracking emissions over time*, requires reporting entities to restate base year emissions when significant errors are identified. We agree that the restatement of previously issued GHG information for material errors is necessary and allows for effective analysis and comparison of such data over time. We recommend, however, that the Corporate Standard expand this guidance on errors to:

- provide detailed guidance (including qualitative and quantitative considerations) on how to

Proposal template: Alignment with financial reporting principles

assess errors to determine whether a material misstatement has occurred,

- require that reporting entities restate comparatives to reflect the corrected information for material misstatements, and
- require detailed disclosures about the error and its impact in the current reporting period for material misstatements.

This guidance should be prepared in the context of the additional materiality guidance we recommend in our response to question 29 in the [Corporate Accounting and Reporting survey](#).

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*

Our recommendations are consistent with the GHG Protocol accounting and reporting principles because they would strengthen the requirements pertaining to cut off, which is critical to the completeness and accuracy of emissions reporting. Further, requiring retrospective adjustments for material errors and material changes in measurement policies would align with the principles of accuracy and consistency in the basis of reporting. Finally, changes in measurement estimates would only result from new information and maintain the integrity and consistency of previously reported information enhancing transparency and relevance.

- 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.*

We believe that our recommendations facilitate clear reporting about the impact of strategies implemented on GHG emissions. Such reporting will provide more decision-useful information regarding a reporting entity's journey toward meeting global climate goals.

- 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)?*

Our recommendations support ambitious climate goals and actions because we believe that precise and enforceable reporting period cut off would encourage the performance (or nonperformance) of actions within a specified period by enabling users to track performance against a target. Further, information is most useful when provided with context. Additional disclosures about measurement policies, measurement estimates, and errors enhance transparency, and better inform decision making.

Proposal template: Alignment with financial reporting principles

- 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?*

The proposed approach would not require that entities obtain any new data (other than as needed to apply existing guidance). We note that in applying our recommendations, reporting entities would need less historical information for purposes of revising previously calculated emissions on account of changes in estimates. Finally, due to better alignment with financial reporting, the processes already in place to capture financial information may be leveraged to gather the data needed to enact the changes suggested by our recommendations.

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

As noted in our responses to questions 3 and 4, we believe these recommendations will enhance reporting of emissions information by clarifying and expanding existing guidance.

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

In light of the climate-related reporting proposals put forth by the CSRD, ISSB, and the SEC, GHG emissions information is expected to increasingly be reported together with financial information, emphasizing the need for better alignment between financial reporting and GHG emissions reporting frameworks. Our proposal would enhance interoperability of the standards. Further, given that the impact of changes due to errors, estimates, policies, and reporting entity structure would continue to be reflected and more clearly reported and disclosed, existing users of this information would not be disadvantaged.

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.*

Not applicable.

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

“PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL), each of which is a separate and independent legal entity. With offices in 152 countries and almost 328,000 people, PwCIL is among the leading professional services networks in the world. Following consultation with members of the PricewaterhouseCoopers network of firms, our survey response summarizes the views of those member firms that commented on the survey. Our response is informed by our interactions with clients and investors and our history of engagement and proactive thought leadership on ESG matters.

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

Not applicable.

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

RESPONDENT INFORMATION

Name

Henry Daubeney

Organization

PricewaterhouseCoopers

Email address

henry.daubeney@pwc.com

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.*

Corporate Standard

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

Chapter 5, Tracking emissions over time

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

The Corporate Standard requires reporting entities to choose and report a base year and base year emissions profile; however, little guidance is provided on selecting the appropriate base year. Any year can be designated as a base year, regardless of how far removed it is from the current reporting period as long as there is verifiable emissions information and the reporting entity reports the basis for selecting that base year. Further, we note that the relevance of base year emissions diminishes over time, especially when the reporting entity undergoes structural changes (such as additions, disposals, insourcing, and outsourcing). The current requirements to retroactively adjust base year emissions to reflect significant changes fail to meet the relevance, accuracy, and transparency criteria because (1) obtaining the data needed to restate information can be onerous for reporting entities, sometimes requiring significant estimates based on limited verifiable data, (2) guidance on how to determine which events should trigger a recalculation of the base year emissions is limited, leading to diversity in practice, and (3) the existing guidance does not distinguish among events that have a

Proposal template: Tracking emissions over time

retrospective impact (such as prior period errors) and a prospective impact (such as acquisitions) on emissions, instead suggesting equal treatment for all such events.

We also note that unmodified base year information is a critical data point for users who are increasingly focused on progress against GHG emission reduction targets. Given the issues outlined above, we believe that disclosure of base year information should only be required when reporting entities select and report a target base year for its emissions reduction goals. In any other instance, the current requirement to disclose base year information does not serve to incentivize behavioral changes to reduce emissions, and may obscure GHG information necessary for users to draw meaningful conclusions.

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

GHG Protocol should remove the requirement to select and disclose a base year, and that base year's emissions information, except when reporting a base year in the context of emissions reduction goals. Instead, we believe the presentation of comparative information for the immediately preceding years, combined with enhanced disclosures, would reduce the burden on preparers and better serve the dual purpose of tracking emissions over time and promoting behavioral change. With the trend established by the most recent comparative periods, users will be able to more clearly understand actions taken by management, how those actions impact GHG emissions, and how the changes align with the entity's GHG emission reduction strategies.

Based on the above, we recommend the following revisions to the related guidance:

Comparative information

We recommend that GHG Protocol require reporting entities to disclose greenhouse gas emissions information as of the end of the current period, with comparative information provided for the preceding reporting period(s), consistent with the periods provided for other information presented in the report.

Although we do not believe base year data is useful on its own, as discussed in question 3, we believe it remains an important reference point in the context of an emissions reduction target. When base year information broadcasts the beginning of a reporting entity's journey toward reducing emissions, it should continue to be presented along with the GHG emissions target and accounting policies for selecting the base year and the factors that would lead a reporting entity to retrospectively adjust the base year information or to select an alternate base year.

Restatements of comparative and base year information

Consistent with financial reporting principles, there should be limited instances when prior year comparative and base year information should be restated. We believe this information should only be restated in the event of a material error or a change in GHG measurement policies. The nature of these events call for restatement because they compromise the comparability and consistency of the information presented. Changes in estimates impact only current and future performance and therefore should not trigger restatements. Refer to our [financial reporting template](#) for further discussion on the need to define and distinguish between measurement policies and estimates and details on proposed disclosures.

Robust disclosures

Consistent with financial reporting, we believe that robust disclosures about material changes between current and prior periods can achieve the objective of providing meaningful information about emissions over time, without the need to restate prior period. To provide users with the appropriate context, we recommend that GHG Protocol require disclosures specific to the nature of the transaction driving the change. For example, for mergers and acquisitions, disclosures may include how the transaction impacts the entity's greenhouse gas emissions strategy, the amounts of incremental GHG emissions from the date of acquisition, and a pro forma disclosure that reflects the

Proposal template: Tracking emissions over time

GHG emissions information as though the transaction had occurred at the beginning of the earliest comparative period. In the event of divestments and disposals, we recommend disclosing information about the disposed operation, separate from the remaining business, for the current and comparative prior periods. These disclosures could be expanded to include information about transactions anticipated within 12 months (i.e., emissions related to assets held for sale).

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*

We believe that our recommendations meet GHG Protocol accounting and reporting principles as follows:

- Restricting the types of events that result in restating previously reported information maintains the integrity of information, thus enhancing accuracy and period-over-period consistency.
 - Requiring enhanced disclosures places the onus on management to provide the context that users need to understand the impact of material events on reported GHG emissions.
 - Base year information, especially when the base year is more than several years removed from the present time, does not contribute to the user's ability to assess the reporting entity's performance and emissions profile over time. Providing comparative information for recent reporting periods, with proper context on any changes between the comparative periods and the current reporting period, may better achieve this purpose.
 - Removing the disclosure of base year information, unless in the context of a GHG emissions target, supports the objective of presenting only the most relevant information.
- 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.*

We believe that our recommendations promote enhanced accountability by improving the clarity and consistency of disclosures and usefulness of reported information.

- 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)?*

We believe that our recommendations related to tracking emissions over time would foster transparency and consistency within the sustainability reporting environment. Our proposal, through advocating for enhanced disclosure, considers that information is most useful when provided with appropriate context. We also believe that our recommendation to retain the disclosures of base year

Proposal template: Tracking emissions over time

information when relevant to emissions reduction targets promotes management accountability in managing a GHG emissions profile over time.

- 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?*

The proposed approach would not require entities to obtain any data beyond that already needed to apply existing guidance. In fact, our proposal would reduce the burden on reporting entities by minimizing the extent of historical information to reflect structural changes.

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

As noted in our responses to questions 3 and 4, we believe these recommendations will enhance reporting of emissions information by clarifying and expanding existing guidance.

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

In light of the climate-related reporting proposals put forth by the Corporate Sustainability Reporting Directive (CSRD), International Sustainability Standards Board (ISSB), and the Securities and Exchange Commission (SEC), GHG emissions information is expected to increasingly be reported together with financial information, emphasizing the need for better alignment between financial reporting and GHG emissions reporting frameworks. Our proposal would enhance interoperability of the standards. Further, given that the impact of changes due to errors, estimates, policies, and reporting entity structure would continue to be reflected and more clearly reported and disclosed, existing users of this information would not be disadvantaged.

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.*

Not applicable.

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

“PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL), each of which is a separate and independent legal entity. With offices in 152 countries and almost 328,000 people, PwCIL is among the leading professional services networks in the world. Following consultation with members of the PricewaterhouseCoopers network of firms, our survey response summarizes the views of those member firms that commented on the survey. Our response is informed by our interactions with clients and investors and our history of engagement and proactive thought leadership on ESG matters.

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

Not applicable.

Scope 2 Guidance survey

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*

Henry Daubeney

3. *Organization*

PricewaterhouseCoopers

4. *Country*

“PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL), each of which is a separate and independent legal entity. With offices in 152 countries and almost 328,000 people, PwCIL is among the leading professional services networks in the world. Following consultation with members of the PricewaterhouseCoopers network of firms, our survey response summarizes the views of those member firms that commented on the survey.

5. *Email address*

henry.daubeney@pwc.com

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)

PwC’s corporate sustainability group prepares a greenhouse gas inventory in accordance with the Greenhouse Gas Protocol and issues a climate report on behalf of the global firm. In addition, many of our firms issue climate reports in line with their jurisdictional requirements. Our responses to the survey, however, are primarily informed by our interactions with clients and investors as well as our history of engagement and proactive thought leadership on ESG matters.

We have also prepared a [summary letter](#) to highlight our most significant recommendations.

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

- Yes
- No
- Not applicable
- Other (please specify)**

Please refer to our response to question 7.

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)**

Please refer to our response to question 7.

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**

Please refer to our response to question 7.

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.*

As noted in our response to question 7, we prepared a [summary letter](#) which highlights our most significant recommendations in response to the surveys issued by the Greenhouse Gas Protocol. These recommendations include comments related to the GHG Protocol's purpose, governance, organization of the reporting standards, interoperability, and enhanced data quality. These recommendations are applicable broadly to all of the GHG Protocol's standards, including its guidance related to scope 3. Please also see question 14 in our response to the [Corporate Accounting and Reporting Standard survey](#) where we have also included these recommendations.

Our comments and recommendations specific to scope 2 are discussed in our responses to this survey.

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.

Newer technologies and techniques that advance decarbonization (e.g., energy storage, hydrogen as an “energy carrier”) introduce challenges in calculating scope 2 emissions, including how to reflect the emissions profile of these technologies in the calculation of more accurate emission factors. Advanced metering systems and evolutions in demand-side load management may drive access to more time-granular and geographically-granular grid emission data. The ability to access and use disaggregated information for calculating scope 2 emissions would, in our view, better reflect management actions that impact scope 2 emissions. For example, a reporting entity may achieve lower scope 2 emissions by shifting more production hours to periods when a higher proportion of renewable resources supplies the grid.

Calculation methodologies that reflect the current stages of market developments require a collaborative effort with stakeholders. We believe this is critical to ensuring that the location-based method can progress in line with the state of electricity markets. Therefore, we recommend that GHG Protocol establish formal processes to consider the impact that new technologies and evolutions in access to information may have on its standards and guidance.

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.

As discussed in our response to question 16, we believe that the guidance for calculating and reporting scope 2 emissions must keep pace with the market and technological developments.

Further, GHG Protocol should revise the current guidance to address application challenges. For one, the dual reporting requirement is onerous for some reporting entities and, as further discussed in our response to question 20, we believe that the location-based method is more representational, meaningful, and actionable by users of the information. In this case, we believe the guidance would benefit from allowing flexibility that does not compromise the ability to report decision-useful information.

Secondly, we believe that the energy attribute certificate (EAC) quality criteria currently offer too much flexibility that has led to notable diversity in practice, compromising the usefulness of this information. Our specific recommendations related to the dual reporting requirement and quality criteria are included in responses to question 20 and questions 38-40, respectively.

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.

GHG Protocol Scope 2 Guidance requires dual reporting, which involves calculating and reporting scope 2 emissions using the location-based method and the market-based method (when product or supplier-specific data in the form of contractual instruments is available). The market-based method does not always reflect the underlying physical emissions, however, and reporting different emissions for the same activity may be confusing for users of the information.

The location-based method determines scope 2 emissions based on an entity's actual electricity consumption, using emission factors that incorporate the electricity fuel sources used to power the grid where the consumption physically occurs. Reporting entities operating in electricity markets where the electricity grid relies primarily on coal power plants, for example, will have significantly higher location-based scope 2 emissions when compared to those in a location where electricity is provided by more renewable power sources (e.g., wind). In contrast, the market-based method incorporates the impact of contractual arrangements and EACs to arrive at a proxy for emissions based on electricity sources the reporting entity has chosen.

We strongly recommend that GHG Protocol prioritize reporting of scope 2 emissions using the location-based method — that is, based on the physical location of the consumption and the actual electricity grid generating the power — because it is more representational, meaningful, and actionable by users of the information. To this end, we recommend using the location-based method as the primary metric for calculating and reporting scope 2 emissions. Further, we believe that GHG Protocol should continue to evaluate methods to refine reporting of location-based information as reporting techniques continue to evolve. For example, time of day power usage information, calculations based on daily rather than monthly information, more localized reporting, and other techniques may further enhance the value of the information reported.

We recognize, however, that the market-based approach is commonly referred to and provides reporting entities with a means to demonstrate specific actions and the impact of contractual arrangements, which may be essential information for tracking performance against scope 2 emissions reduction targets calculated using the market-based method. Accordingly, we recommend that GHG Protocol amend the Scope 2 Guidance to allow reporting entities the flexibility to calculate and report scope 2 emissions using either:

- the dual reporting requirement or,
- the location-based method along with separate disclosure of energy attribute certificates purchased and retired by the reporting entity during the reporting period, if any. This disclosure should include details about how the EAC was acquired (for example, purchased directly or obtained through contractual power purchase arrangements with renewable energy facilities) as well as information about the generator and location of the underlying facility.

We also recommend that GHG Protocol clarify and strengthen the quality criteria applied to reported EACs. The existing quality criteria, in some cases, provide an excessive amount of flexibility, leading to different interpretations and diversity in application, resulting in reduced comparability. Please see our specific recommendations in question 38 - 40.

Questions 21 - 27 omitted

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**

Please refer to our response to question 16.

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?*

We do not recommend that GHG Protocol make reference to any resources, tools, or databases developed by other organizations. We believe it is critical that the GHG Protocol’s standards stand alone to provide a complete source of guidance on greenhouse gas emissions reporting.

Further, to be the premier standard setter for greenhouse gas emissions reporting, we believe it is important for GHG Protocol to control the development of its standards, thus avoiding potential bias that may be inherent in standards developed by industry groups or others interested in promulgating a specific viewpoint. Ensuring all standards governing emissions reported in accordance with the GHG Protocol’s standards and guidance are subject to its own due process would ensure that its suite of standards are robust, independent, and fit for purpose across a broad spectrum of users.

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

One of the challenges we observe in applying the GHG Protocol is difficulty in determining the applicable requirements and understanding how the various standards and guidance interact with each other. We believe that restructuring the full suite of standards and guidance to enhance their usefulness and effectiveness should be one of the GHG Protocol’s highest priorities. Please refer to the “Organization of the reporting standards” section of our response to question 4 in the related [governance matters template](#), for our detailed recommendations.

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.*

Our responses to this survey highlight the key challenges in applying the GHG Protocol Scope 2 Guidance and our recommendations to address them.

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.*

We recommend that GHG Protocol work with other regulators and ESG standard setters to ensure key elements that support high quality GHG emissions accounting are more formally incorporated into the maintenance and ongoing development of the GHG Protocol’s standards.

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.*

Not applicable.

34. *How are you applying the Scope 2 Guidance in the context of your program?*

Not applicable.

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?*

Not applicable.

QUESTIONS ON SCOPE 2 GUIDANCE AGGREGATIONAL THEORY OF CHANGE

Questions 36 and 37 omitted

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.*

Disconnects between the timing of the generation of scope 2 emissions and an EAC used to reduce those emissions significantly diminishes the substance of the transaction as well as the quality and usefulness of the related emissions reporting. Therefore, we recommend that the vintage requirements transition to a significantly smaller increment (e.g., within the month of generation or comparable billing cycle). To facilitate implementation, we recommend allowing a transition period — with additional time for reporting entities operating in less developed EAC markets — before requiring adoption of revised vintage criteria.

In addition, consistent with our response to question 16, we believe that the vintage requirements should continue to evolve as additional and more accurate reporting becomes available

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.*

As discussed in the Scope 2 Guidance, a market boundary currently could be an area as large as a country, group of countries, or based on regulatory restrictions on the use of an instrument. A reporting entity is, therefore, not precluded from using an EAC acquired and retired in a market where it has no operations and with no direct physical connection to where the scope 2 emissions are generated. Further, GHG Protocol provides limited guidance on how to conclude that an EAC is not suitable for reducing scope 2 emissions under this quality criteria.

We recommend that GHG Protocol strengthen the market boundary quality criteria to limit use of EAC instruments solely to reduce scope 2 emissions in the same control area as where the purchased electricity is consumed. Recognizing that markets vary in maturity and availability of renewable resources, GHG Protocol should establish a reasonable transition period for reporting entities operating in less developed markets. During this period, reporting entities should disclose details about the source of the scope 2 emissions and quality of EACs acquired and retired to reduce them.

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.*

We believe the quality of reporting would be strengthened by updating the EAC retirement criterion. We recommend that the guidance be aligned with financial reporting such that only those instruments retired during the reporting period would be included in the disclosure. When a reporting entity is permitted by a registry or regulatory body to retire EACs in the current period but reflect the retirement in a prior reporting period, a reporting entity:

- should consider the need to include a subsequent event disclosure regarding new information available about emissions reported during the reporting period, and

- consider a separate disclosure reconciling reported emissions to those reported to regulators/reflected in the registry for the reporting period.

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.

Please refer to our responses to the earlier questions in this survey as well as our general recommendations included in our responses to the [Corporate Accounting and Reporting survey](#).

Scope 3 Standard and Scope 3 Calculation Guidance survey

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 3 Survey Memo and that you consent to the data disclosure agreements outlined in the Process Memo.*

- Yes**
 No

RESPONDENT INFORMATION

2. *Name*

Henry Daubeney

3. *Organization*

PricewaterhouseCoopers

4. *Country*

“PricewaterhouseCoopers” refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL), each of which is a separate and independent legal entity. With offices in 152 countries and almost 328,000 people, PwCIL is among the leading professional services networks in the world. Following consultation with members of the PricewaterhouseCoopers network of firms, our survey response summarizes the views of those member firms that commented on the survey.

5. *Email address*

henry.daubeney@pwc.com

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)

PwC’s corporate sustainability group prepares a greenhouse gas inventory in accordance with the Greenhouse Gas Protocol and issues a climate report on behalf of the global firm. In addition, many of our firms issue climate reports in line with their jurisdictional requirements. Our responses to the survey, however, are primarily informed by our interactions with clients and investors as well as our history of engagement and proactive thought leadership on ESG matters.

We have also prepared a [summary letter](#) to highlight our most significant recommendations.

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

- Yes
- No
- Not applicable
- Other (please specify)**

Please refer to our response to question 7.

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
- Industry group
- Non-profit organization/NGO/civil society
- Provider of data or product related to GHG inventories
- Other (please specify)**

Please refer to our response to question 7.

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)

CORPORATE VALUE CHAIN (SCOPE 3) STANDARD

11. *Does your company/organization use the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard to develop its greenhouse gas inventory?*

- Yes
- No
- Not sure
- Not applicable (my company/organization does not have a greenhouse gas inventory)
- Other (please specify)**

Please refer to our response to question 7.

12. *How satisfied are you with the current GHG Protocol Corporate Value Chain (Scope 3) Standard?*

- 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 Corporate Value Chain (Scope 3) Standard?*

- 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.*

As noted in our response to question 7, we prepared a [summary letter](#) which highlights our most significant recommendations in response to the surveys issued by the Greenhouse Gas Protocol. These recommendations include comments related to the GHG Protocol's purpose, governance, organization of the reporting standards, interoperability, and enhanced data quality. These recommendations are applicable broadly to all of the GHG Protocol's standards, including its guidance related to scope 3. Please also see question 14 in our response to the where we have also included these recommendations.

Our comments and recommendations specific to scope 3 are discussed in our responses to this survey.

Scope 3

To achieve the accounting and reporting principles of accuracy, completeness, consistency, relevance, and transparency, as defined by the Corporate Standard, we believe GHG Protocol should revisit

whether its Corporate Value Chain (Scope 3) Standard, including the fifteen categories, still aligns with its purpose and application.

By definition, scope 3 emissions are indirect and encompass emissions outside the direct control of the reporting entity. Scope 3 emissions disclosures are typically the most challenging to prepare and understand, given the often broad scope of a company's value chain and its varying degrees of influence over emissions. We acknowledge, however, that scope 3 emissions represent an important element of a company's overall carbon footprint.

To balance the importance of these disclosures with providing more decision-useful information, we recommend revising the scope 3 standard to better differentiate emissions over which a company has a degree of influence, with differentiated disclosures depending on the degree. For example, a large company may have visibility into the emissions of its suppliers and may be able to exert pressure to reduce those emissions in the future, whereas a small company may have limited visibility or influence, providing less useful information. Further, depending on a company's location in the value chain, it may have limited or no influence over the use and disposal of its products and disclosures based solely on conjecture do not serve the interest of the company or its stakeholders.

Thus, we recommend that GHG Protocol rethink the depth and breadth of scope 3 disclosures and consider requiring a company to disclose its relative degree of influence over the entities generating such emissions. The current guidance assumes that both influence and visibility are balanced throughout the value chain, which creates unnecessary hurdles for many entities, including smaller companies and entities serving intermediary roles, such as agents, wholesalers, or retailers. In addition, lack of influence and visibility may impact the quality of the information reported.

Therefore, we recommend incorporation of flexibility in reporting of scope 3 emissions, such that disclosures are commensurate with the reporting entity's influence over those emissions. Specifically, we believe that GHG Protocol should consider developing factors to be considered by preparers in their assessment of influence, and further, establish minimum reporting requirements based on the varying degrees of influence. We support the disclosure of ranges of most likely or possible outcomes when a reporting entity has limited influence and there are multiple alternate scenarios factored in estimating emissions associated with its value chain.

Lastly, we recommend that GHG Protocol require enhanced disclosures about key methodologies, assumptions, and estimates used in developing a greenhouse gas inventory. We believe a disclosure framework, similar to the fair value measurement hierarchy, based on factors and techniques of relevance in emissions measurement, would promote transparency. Refer to our detailed recommendations within our [governance matters template](#).

15. *Does your company/organization or industry face any specific challenges in complying with the GHG Protocol Corporate Value Chain (Scope 3) Standard requirements and guidance? If yes, please describe each challenge and the solutions you would propose for addressing the challenge. You may enter brief comments here or submit a more detailed proposal using the proposal template.*

Please refer to our response to question 7.

16. *Does your company/organization or industry require additional industry-specific guidance for developing a scope 3 GHG inventory? If yes, please describe what is needed.*

We believe that GHG Protocol should prioritize industry-agnostic standards that have sufficient flexibility to address matters arising across a multitude of use cases. We recognize, however, that there are certain industry-specific situations where additional clarity would aid consistency and transparency of reporting. To address these concerns, we recommend that the standards and guidance incorporate more practical application examples, spanning a range of industries. For example, it would be helpful to illustrate the scope determination for common and recurring situations such as commercial real estate, oil rigs, power plants, principal-agent transactions, and other multi-party arrangements.

17. Do you propose revisiting or making any changes or clarifications to the current requirements and guidance in the Corporate Value Chain (Scope 3) Standard?

- Yes**
 No
 No opinion/Not sure

18. If yes, please explain the proposed change(s). You may enter brief comments here or submit a more detailed proposal using the proposal template, including which scope 3 category or categories the comment or proposal pertains to.

As referenced above, we believe GHG Protocol should revisit whether its scope 3 guidance, including the fifteen categories, still aligns with the purpose and use of the standard. Please refer to our detailed recommendations in our responses to the [Corporate Accounting and Reporting Standard survey](#) and question 14 above.

SCOPE 3 CALCULATION GUIDANCE

19. Does your company/organization use the Greenhouse Gas Protocol Scope 3 Calculation Guidance to develop its greenhouse gas inventory?

- Yes
 No
 Not sure
 Not applicable (my company/organization does not have a greenhouse gas inventory)
 Other (please specify)

Please refer to our response to question 7.

20. How satisfied are you with the current GHG Protocol Scope 3 Calculation 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)

21. Do you think there is a need to update the GHG Protocol Scope 3 Calculation 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

22. Please explain your selection. You may enter brief comments here or submit a more detailed proposal using the proposal template.

Given the pervasive scope of the activities impacting emissions throughout an organization's value chain, practitioners encounter nuances in practice that are not explicitly addressed within the standards. Additional implementation guidance and practical examples would enable more consistent application of the scope 3 standard, improving comparability across companies. In addition, we include specific recommendations with respect to certain categories below.

Category 1 — We recommend that GHG Protocol expand this guidance to include specific considerations related to emissions associated with purchased licenses and patents. In certain industries, material amounts of capital are deployed to purchase licenses and patents for goods or services. Reporting entities would benefit from clarity and practical application examples related to the recognition and measurement of scope 3 emissions associated with the development of associated products and services. Specifically, we believe GHG Protocol should address the disconnect between emissions determined based on the cost of patents and licenses incurred during a reporting period relative to the actual emissions generated during the development of those patents and licenses when scope 3 emissions are calculated using the spend-based method.

Category 11 — Reporting entities also frequently encounter hurdles in the estimation of emissions from the use of sold products. This estimation may be relatively straightforward when an entity creates a product for a specific purpose. In contrast, this estimation is exponentially difficult in segments of the value chain, such as raw materials suppliers (e.g., corn, natural gas, steel, lumber), where there are numerous potential uses for a particular product and the suppliers often have no visibility as to how their product is utilized after sale, making it impractical to project emissions associated with the downstream use of the product. We recommend that GHG Protocol permit ranges to be used in reporting or disclosure based on one or two likely or representative uses. Further, the inclusion of implementation examples would provide additional clarity on how to evaluate and calculate emissions in multifaceted scenarios.

Category 12 — Anecdotally, one of the most frequent areas of difficulty for preparers is determining how to calculate end-of-life emissions for products that are often recycled, such as steel, or products for which they have limited visibility into their final disposition. Thus, as discussed in question 14, we recommend allowing alternative reporting when the reporting entity has limited or no influence or visibility. Notwithstanding this recommendation, if category 12 is retained as currently written, we recommend GHG Protocol provide additional clarity on how to evaluate and calculate emissions in these scenarios.

Category 15 — As noted in our response to question 27, we believe it is important for GHG Protocol to control the development of its standards, in lieu of relying on supplemental guidance developed by individual sectors. Direct responsibility for standards development and application of the GHG Protocol's own due process will ensure that its suite of standards are robust, independent, and fit for purpose across a broad spectrum of users. In addition, with respect to financed emissions, we suggest the enhancement of guidance on accounting for emissions related to investments for companies other than financial institutions. Incorporation of guidance with respect to financed emissions, through an industry-agnostic lens, within the GHG Protocol's core standards will benefit all users.

Questions 23 - 26 omitted

27. Are there existing resources, tools, or databases developed by other organizations (which are in conformance with the Scope 3 Standard) that you would suggest that GHG Protocol references to support companies in applying the Scope 3 Standard?

We do not recommend that GHG Protocol make reference to any resources, tools, or databases developed by other organizations. We believe it is critical that the GHG Protocol's standards stand alone to provide a complete source of guidance on greenhouse gas emissions reporting.

We have observed that certain sectors are developing supplemental guidance outside the auspices of GHG Protocol. Leveraging the work of other organizations may have been an effective strategy for GHG Protocol as it sought to expand its available guidance. Ultimately, however, to be the premier standard setter for greenhouse gas emissions reporting, we believe it is important for GHG Protocol to control the development of its standards, thus avoiding potential bias that may be inherent in standards developed by industry groups or others interested in promulgating a specific viewpoint. Ensuring all standards governing emissions reported in accordance with the GHG Protocol's standards and guidance are subject to its own due process would ensure that its suite of standards are robust, independent, and fit for purpose across a broad spectrum of users.

28. Are there new resources, tools, or databases that you think need to be developed to support companies in applying the Scope 3 Standard?

One of the challenges we observe in applying the GHG Protocol is difficulty in determining the applicable requirements and understanding how the various standards and guidance interact with each other. We believe that restructuring the full suite of standards and guidance to enhance their usefulness and effectiveness should be one of the GHG Protocol's highest priorities. Please refer to the "Organization of the reporting standards" section of our response to question 4 in the related [governance matters template](#).

29. Do you have any other feedback or suggestions to improve and/or refine the Scope 3 Calculation Guidance?

New technologies and techniques that advance decarbonization (e.g., sustainable aviation fuel, hydrogen, agricultural commodities, recycling innovations) may impact how emissions are calculated and reported. Ensuring that calculation and reporting methodologies reflect the current stages of market developments require a collaborative effort with various stakeholders. We believe this is critical to ensuring that GHG Protocol guidance progresses in line with the state of the emission landscape. Therefore, we recommend that GHG Protocol establish formal processes to monitor developing technologies and evolutions in access to information. Further, GHG Protocol should formally evaluate the impact of these technological advances on scope 1, scope 2, and scope 3 GHG reporting, incorporating additional interpretive guidance in its standards as applicable.

QUESTIONS FOR PROGRAMS/POLICYMAKERS

This section is intended for programs, initiatives, policymakers, or regulators using GHG Protocol standards

30. Are you applying the Corporate Value Chain (Scope 3) Standard in the context of your program? If so, please explain.

Not applicable.

31. 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?

Not applicable.