

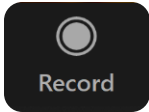


Scope 2 Consequential Subgroup Meeting

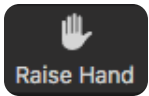
Meeting #1

February 6th, 2025

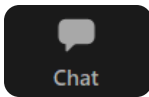




This meeting is recorded.



Please use the Raise Hand function to speak during the call.



You can also use the chat function in the main control.



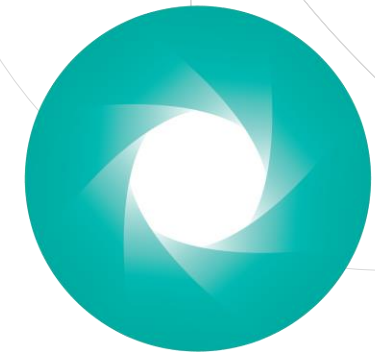
Recording, slides, and meeting minutes will be shared after the call.



Be mindful of sharing group discussion time; keep comments as succinct as possible.

Agenda

1. Housekeeping & goals for meeting
2. Overview of AMI workstream
3. Review timeline and deliverables
4. Review accounting and reporting principles from Project Accounting Standard
5. Discussion on purposes and uses of consequential electric sector emission impact measures



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Goals of today's meeting



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Housekeeping and goals

- Meeting materials are housed in the Scope 2 TWG SharePoint, under the folder name “Consequential Subgroup”
- Terms of Reference for participation in the larger TWG apply to participation in the subgroup
- Meeting materials, minutes, and shared documents will be handled similarly to how they are handled in the main TWG
- **Default meeting time:** 9:00 AM EST/15:00 CET/22:00 CST
 - To be discussed with subgroup

Housekeeping and goals

- Goals of today's meeting
 1. Review the timeline and deliverables for the subgroup
 2. Orient ourselves toward the GHG Protocol accounting and reporting principles for consequential emissions accounting
 3. Brainstorm purposes and uses of consequential emissions accounting for the electric sector
- Open forum for member-led workplan development

AMI Workstream Placeholder



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AMI Workstream Objectives

Advance **complete and transparent** corporate GHG accounting and reporting by:

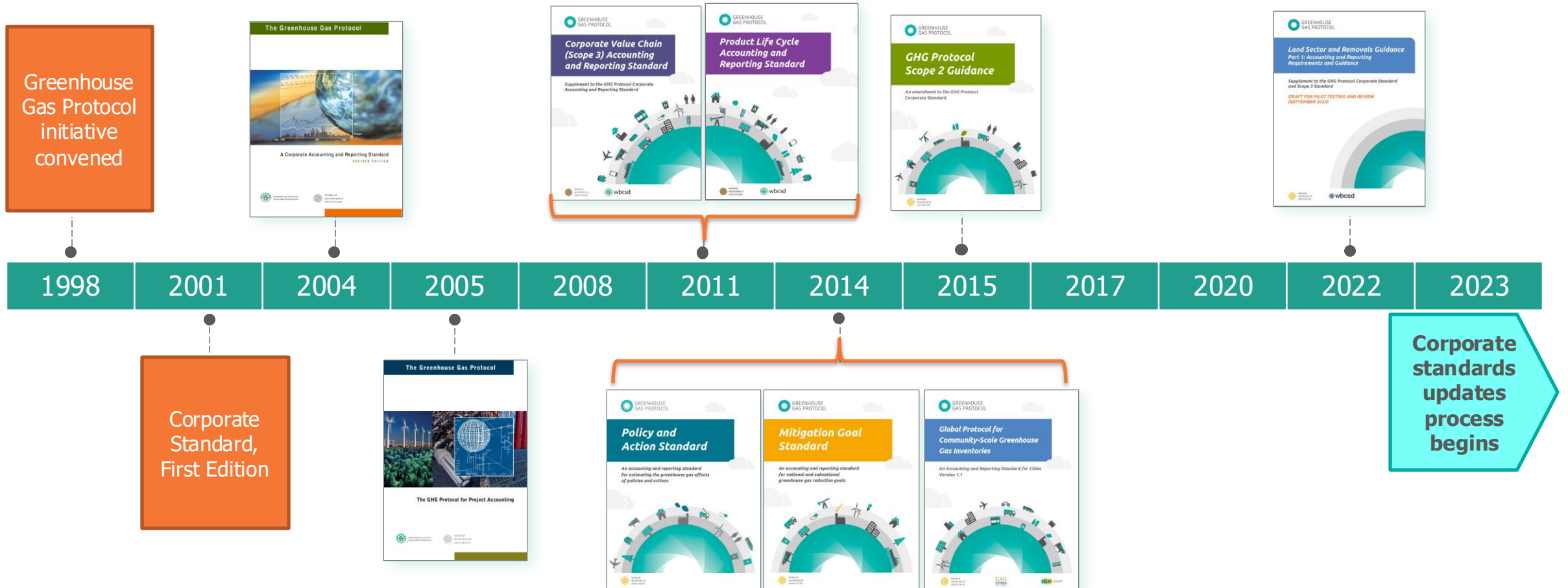
- **Providing clarity** on the structure, purpose, and limitations of a corporate GHG report and its various elements
- **Addressing the appropriate role** of actions and market instruments

Accounting and reporting on the impacts of actions and market instruments in corporate GHG reports



Standard and/or guidance building on other GHG Protocol standards and guidance

History of GHG Protocol standards



GHG Protocol Corporate Reporting

GHG Report (Inventory Report)

Inventory

- Scope 1
- Scope 2 (location-based + market-based)
- Scope 3 (by category)

“Reported Separately”

- GHG trades
- Project-based emissions, reductions or removals
- Avoided emissions

- **Inventory accounting methods**

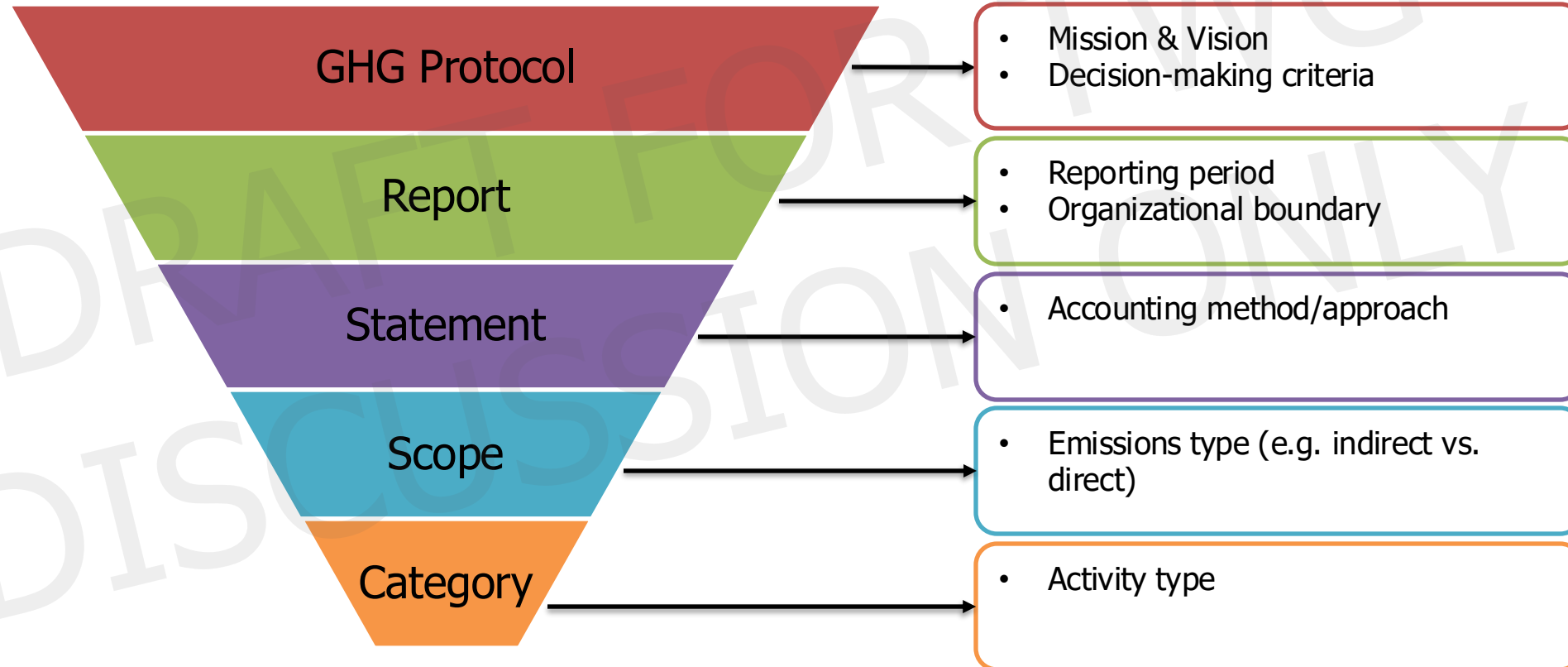
- track GHG emissions and removals within a defined inventory boundary over time relative to a historical base year

- **Project/Intervention accounting methods**

- used to quantify the impacts on GHG emissions or removals of specific projects, actions, or interventions, by estimating systemwide GHG impacts relative to a counterfactual baseline scenario

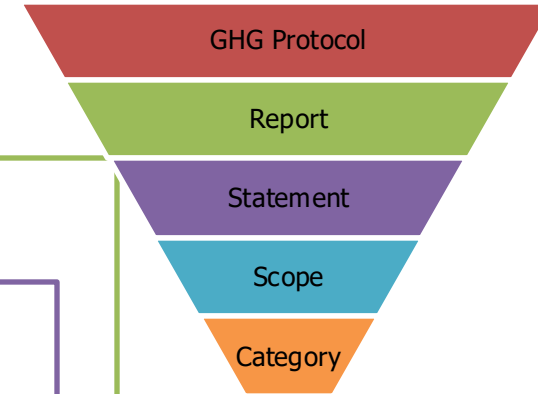
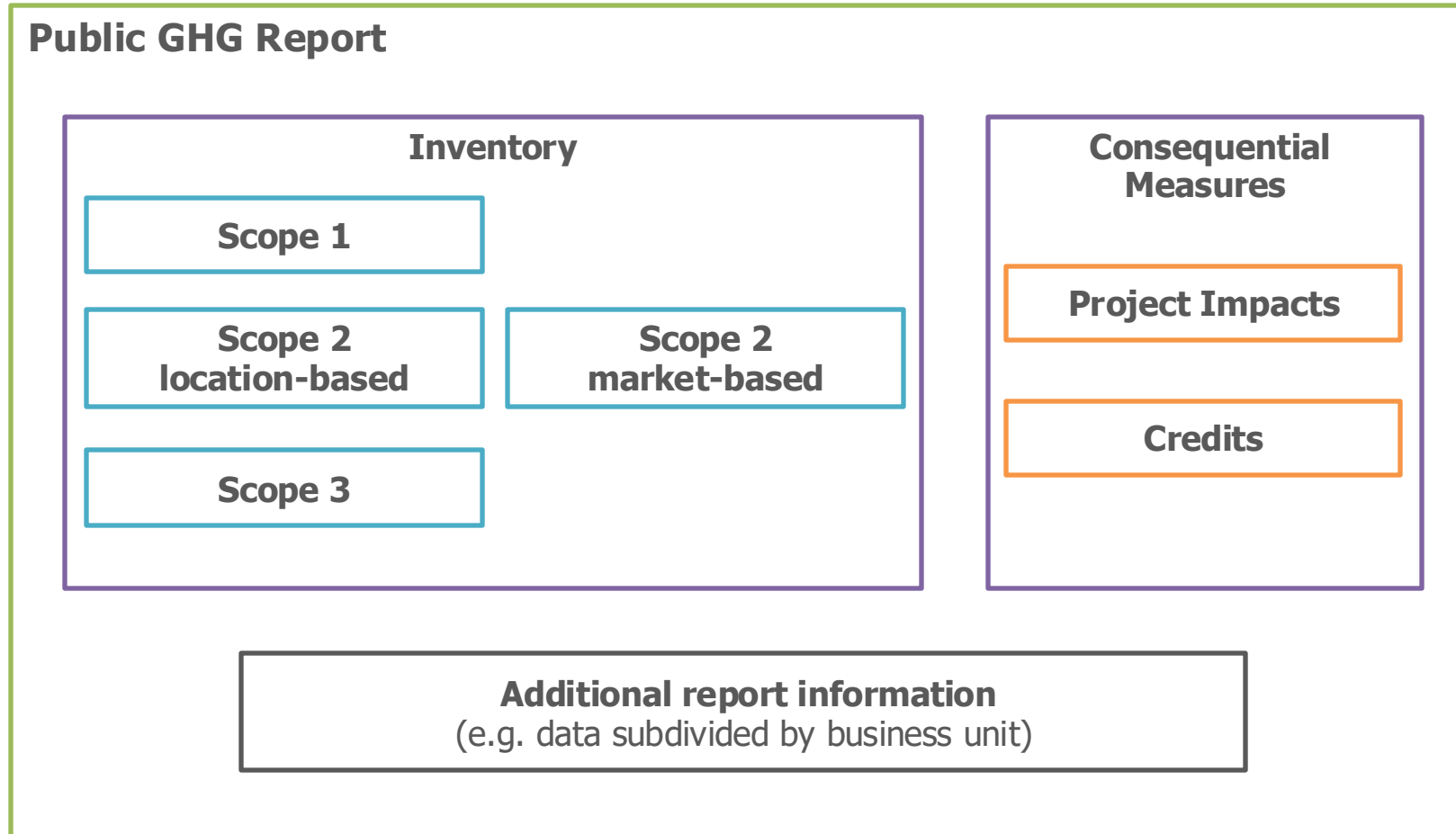
Note: Non-comprehensive, refer to Corporate Standard, chapter 9, for full reporting requirements (e.g. p. 63-64), and the Scope 3 Standard, chapter 11 (e.g. p. 120)

Example Conceptual Hierarchy/Framework



***This is intended to structure conversation and should not be considered final**

Hierarchy Applied to Current Structure

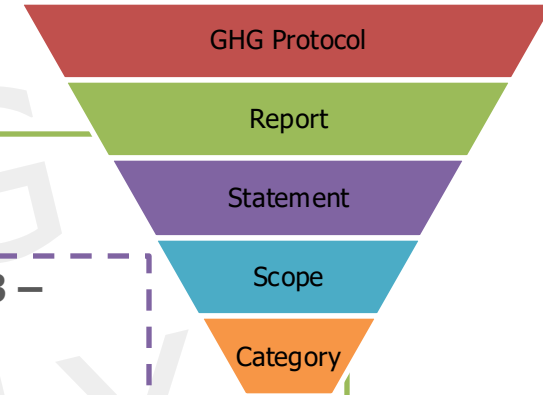
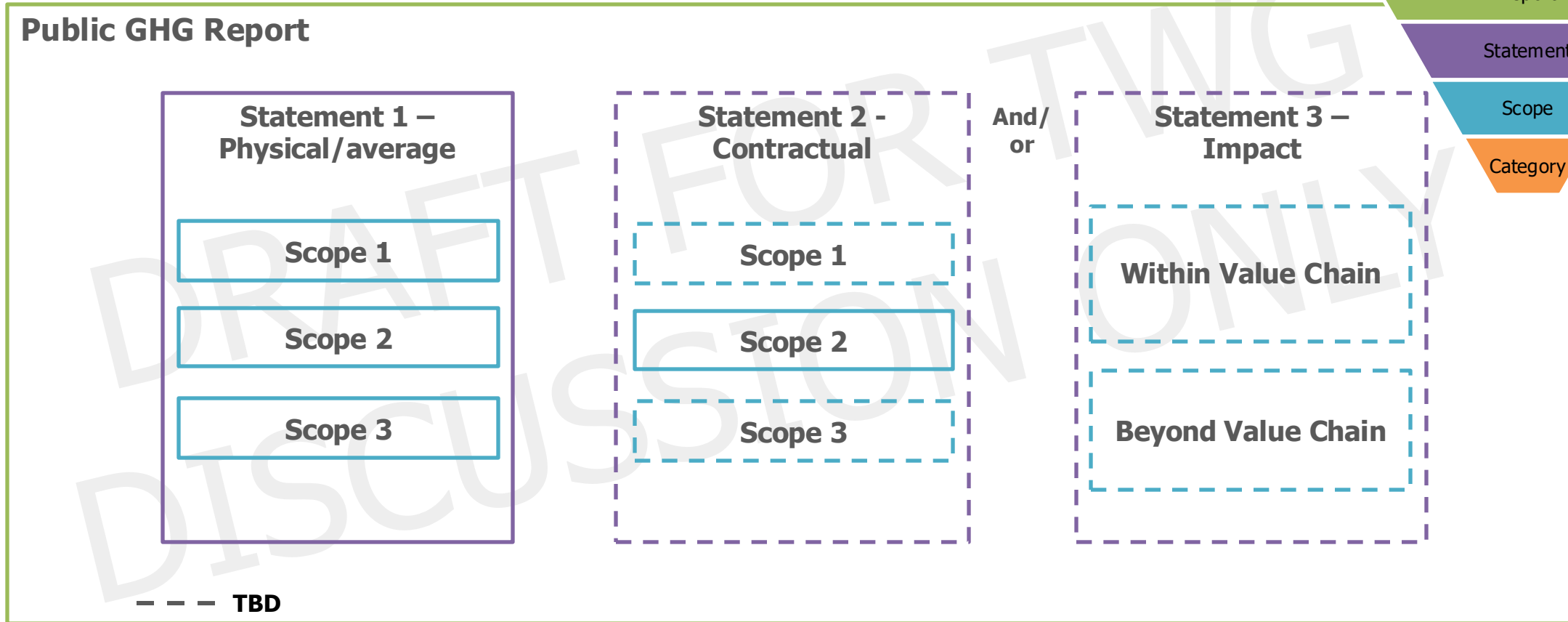


Note: Non-comprehensive, refer to Corporate Standard, chapter 9, for full reporting requirements (e.g. p. 63-64), and the Scope 3 Standard, chapter 11 (e.g. p. 120)

Stakeholder Feedback: Inventory and Emissions Report structures

- In the AMI survey and proposals, respondents suggested different Inventory and Emissions Report structures to accommodate or separate market-based or project-based accounting instruments:
 - **Dual reporting in all scopes**
 - Follow the principles for scope 2 dual reporting in all scopes, or
 - **Only market-based** reporting in the Inventory (i.e., scopes)
 - **Only location-based** reporting in the Inventory (i.e., scopes)
 - Note: Market-based, Project-based, etc. instruments would be reported separately in the Emissions Report
 - Introduce **impact or performance-based methods** in addition to the Inventory (e.g., in addition to or alongside scope 1, 2, and 3)
 - **Focus on accounting principles** and allow programs to determine treatment of specific methodologies

Example of a Multi-Statement Reporting Structure



***Need for, number of, and scope applicability of statements to be determined**

Strategic questions to consider

What use cases are reporting entities and users of GHG Protocol reporting seeking to achieve?



Which of these use cases can and should be facilitated and/or prioritized by the GHG Protocol?
Which should be facilitated and/or prioritized by other actors within the programmatic ecosystem?



Of the identified use cases for GHG Protocol reporting, can these be simultaneously achieved within the current reporting structure? Are any use cases in conflict?



Would the introduction of new reporting elements facilitate the achievement of all identified use cases?



What structure is required to facilitate new reporting elements? What are the requirements for each reporting element?

Estimated Timeline for AMI Standard Development

	2024		2025				2026				2027				2028				
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Development of first draft standards through TWG & ISB		Phase 1 Development					Phase 2 Development												
ISB review and approval of first draft standards (in parts)					Phase 1 Review							Phase 2 Review							
Revision based on ISB review (as needed)												Phase 2 Revisions							
Public consultation (60 days for each standard)						Summary of Outcomes							Draft Standard						
Revision based on consultation																			
ISB and SC approvals																			
Editorial																			
Publish																		Final Standard	

AMI TWG Phase 1

Objectives

- Clarify and/or define the purpose, structure, and limitations of individual elements within the corporate GHG emissions report
- Determine additional reporting elements and associated quantification method(s) needed to address the impacts of actions and market instruments

Public Deliverable Q4 2025 - Summary of Outcomes

- An outline of ISB approved outcomes from Phase 1 AMI TWG discussions. May include:
 - Additional reporting elements (e.g., statements, categories etc.) needed to address the impacts of actions and market instruments
 - High level requirements such as accounting methods and boundaries
- Additional clarity on the scope of technical development for Phase 2

Timeline and Deliverables



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Scope 2 Standard: Scope of work

Scope of work **Phase 1:**

- A. Clarify objectives and consider any changes to the required reporting methods**
- B. Location-based method technical improvements
- C. Market-based method technical improvements
- D. Role of project-based accounting methodology relative to scope 2 accounting**
- E. Guidance for regional variation in energy markets
- F. Interaction with policies and programs

Scope of work **Phase 2:**

- A. TWG consultation on any additional topics as necessary from Phase 1
- B. Interactions across Scope 2 and Scope 3
- C. Guidance for purchased steam, heat, and cooling
- D. Utility-specific guidance and clarification on T&D losses
- E. Technical methodology guidelines for data providers
- F. Technology-specific guidance



Various potential overlaps with phase 2 topics

Phase 1 detailed topics (1/2)

- 1) **Clarify objectives and consider any changes to the accounting and reporting requirements of the Scope 2 Standard**
 - a. Clarify the objectives and purpose of the scope 2 location-based and market-based methods
 - b. Clarify the objectives and purpose of dual reporting of the location-based and market-based methods in scope 2
 - c. **Clarify the relationship between scope 2 inventory accounting and electricity sector project accounting methodologies such as in the GHG Protocol *Guidelines for Quantifying GHG Reductions from Grid-Connected Electricity Projects***
 - d. **Explore whether alternative or additional scope 2-related metrics should be included in a GHG emissions report**

- 2) **Location-based method technical improvements**
 - a. Determine whether to require or recommend more accurate data than currently required, such as hourly data or consumption-based grid average emissions data
 - b. Clarify how to account for electricity generated and consumed from on-site projects within the reporting company's organizational boundary using the location-based method

- 3) **Market-based method technical improvements**
 - a. Review the Scope 2 Quality Criteria to consider revisions to the market boundary and vintage criteria requirements
 - b. Review the Scope 2 Quality Criteria to consider new requirements related to impact, additionality, or resource newness
 - c. Clarify how to account for carbon-free electricity and renewable power supplied under utility programs or regulatory compliance schemes in the market-based method
 - d. Evaluate if updates to the emission factor data hierarchy are appropriate (e.g., residual mix, grid average, fossil- or thermal-only emission factors, order of operations, etc.)

Phase 1 detailed topics (2/2)

4) Role of project-based accounting methodology relative to scope 2 accounting

- a. **Clarify the relationship between scope 2 inventory accounting and electricity sector project accounting methodologies such as the GHG Protocol *Guidelines for Quantifying GHG Reductions from Grid-Connected Electricity Projects***
- b. Determine how and to what extent the quantification and reporting of GHG emission impacts of grid-connected electricity projects using the project method is required by the standard
- c. Clarify potential interactions between carbon credits sourced from carbon-free generation facilities and EACs from the same resource

5) Guidance for regional variation in energy markets

- a. Consider the development of guidance and additional examples of scope 2 calculations for the location-based and market-based methods for various energy markets globally
- b. Create additional guidance for accounting for the purchase and sale of energy associated with “off-grid” energy generating installations, including microgrids

6) Interaction with policies and programs

- a. Clarify what each scope 2 accounting method/metric represents and provide directions and recommendations for their use by mandatory disclosure rules, target-setting programs, and for individual reporters

Interaction with main Scope 2 TWG

- Remit of the subgroup is to deliver recommendations and proposals to the AMI working group
- Subgroup will have touchpoints with the main TWG prior to deliverables being sent to the AMI workstream
- The subgroup will not be the sole group making recommendations related to whether/how to include content on consequential emissions measures in the Scope 2 Standard, these considerations will be taken up by the full Scope 2 TWG
- Content and proposals developed by the subgroup will be used by the full Scope 2 TWG to inform recommendations on the interaction between consequential measures and Scope 2 inventory measures

Purpose and deliverables

- **Purpose**

- To develop recommendations for the consequential quantification and reporting of GHG emission impacts from a reporting organization's electricity sector actions.

- **Objectives**

- Provide focused, actionable recommendations to advance consequential accounting measures.
- **Part 1:** Outline of additional disclosure elements (e.g., statements, categories, etc.) needed to report on consequential measures of GHG emission impacts of electricity sector actions.
- **Part 2:** Create a detailed proposal for the AMI TWG on consequential accounting and reporting of electricity sector emissions impacts, including clear methodologies and guidance for calculation.

Possible considerations for part 1 deliverables

1. What elements/categories of a disclosure on consequential electric sector impacts should be included?
 - Avoided emissions values
 - Operating and/or build margins
 - Induced emissions values
 - “Net” impact values
 - Number of electric sector projects
 - Types of projects (EAC purchases, direct contracts, load shifting, storage, etc...)

2. What is the scope of projects assessed as part of a company’s disclosure?
 - Electricity generation projects
 - Electricity consumption
 - All electricity consumption and energy purchases

3. What are the temporal bounds for emissions assessments?
 - Entire project lifetime reported in the reporting year
 - Only reporting year impacts are reported
 - All lifecycle (including upstream) impacts are included
 - Prior year(s) projects assessments are updated

Meeting schedule and tasks

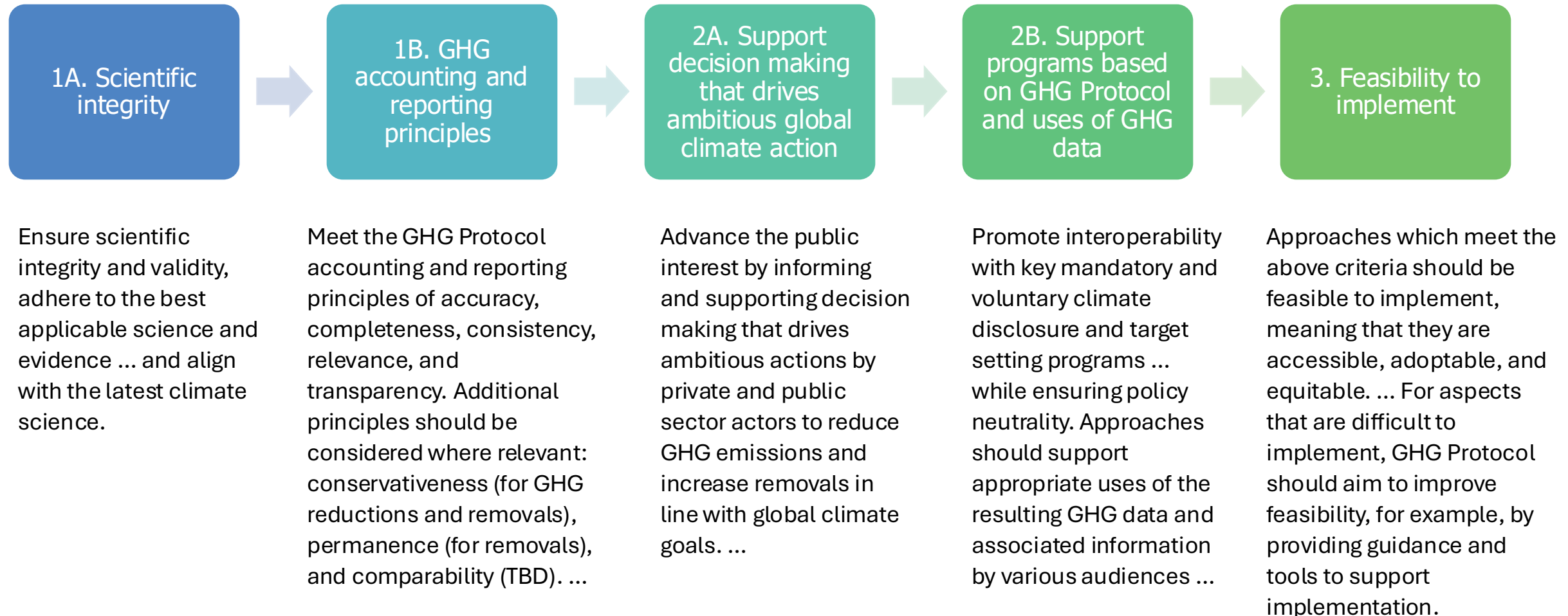
	Q1 2025			Q2 2025			
	Feb 6	Mar 6	Mar 20	Apr 10	May 1	May 22	Jun 12
Meeting #	1	2	3	4	5	6	7
Topic	Scope of work and purposes	First draft of Part 1 deliverable	Final draft of Part 1 deliverable	Discuss Part 2 deliverable plan	Continued refinement of Part 2 deliverable		
Meeting Content	<ul style="list-style-type: none"> - Address timeline and deliverables - Brainstorm purposes - Review next steps 	<ul style="list-style-type: none"> - Review subgroup submissions on reporting structure - Discuss and prep revisions 	<ul style="list-style-type: none"> - Vote on "final" deliverables presented by subgroup members - Review plan for part 2 deliverable 	<ul style="list-style-type: none"> - Discuss plan to build out part 1 deliverable into a full proposal - Organize and discuss next steps 	TBD	TBD	TBD
TWG Tasks		Develop draft emissions impact reporting structure, to be discussed at meeting #2	Refine reporting structure based on discussion at meeting #2, for finalization at meeting #3		Continued development of drafts of part 2 deliverable	Continued development of drafts of part 2 deliverable	Continued development of drafts of part 2 deliverable

Accounting and Reporting Principles for Projects



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GHG Protocol Decision-Making Criteria



Note: This is a summary version. For further details, refer to the full decision-making criteria included in the annex to the Governance Overview, available at <https://ghgprotocol.org/our-governance>.

Project Accounting Standard accounting and reporting principles

Relevance - Use data, methods, criteria, and assumptions that are appropriate for the intended use of reported information.

Completeness - Consider all relevant information that may affect the accounting and quantification of GHG reductions, and complete all requirements

Consistency - Use data, methods, criteria, and assumptions that allow meaningful and valid comparisons

Transparency - Provide clear and sufficient information for reviewers to assess the credibility and reliability of GHG reduction claims

Accuracy - Reduce uncertainties as much as practical

Conservativeness - Use conservative assumptions, values, and procedures when uncertainty is high

The Greenhouse Gas Protocol



The GHG Protocol for Project Accounting



Deep dive on completeness principle

- **Project accounting** completeness refers to the extent to which all the relevant impacts of a project have been completely assessed
- **Inventory accounting** completeness refers to the extent to which all the relevant emissions in a company's boundary have been included

4.2 Completeness

Consider all relevant information that may affect the accounting and quantification of GHG reductions, and complete all requirements

All relevant information should be included in the quantification of GHG reductions. Among other things, this means that all the GHG effects of a GHG project should be considered and assessed (Chapter 5), all relevant technologies or practices should be considered as baseline candidates (Chapter 7), and all relevant baseline candidates should be considered when estimating baseline emissions (Chapters 8 and 9). The GHG project's monitoring plan should also specify how all data relevant to quantifying GHG reductions will be collected (Chapter 10). Finally, notwithstanding areas where there is flexibility and discretion, all requirements within relevant chapters should be completed to quantify and report GHG reductions.

Deep dive on conservativeness principle

- **Conservativeness** is a principle in project accounting but not inventory accounting
- Bias should be on the side of underestimating GHG reductions rather than overestimating
- Tradeoff between accuracy and conservativeness, where increased accuracy is not practical

4.6 Conservativeness

Use conservative assumptions, values, and procedures when uncertainty is high

GHG reductions should not be overestimated. Where data and assumptions are uncertain and where the cost of measures to reduce uncertainty is not worth the increase in accuracy, conservative values and assumptions should be used. Conservative values and assumptions are those that are more likely to underestimate than overestimate GHG reductions.

Additional concepts related to project accounting in the electric sector

Baseline scenario - A hypothetical description of what would have most likely occurred in the absence of the project.

- Project-specific procedure – a baseline scenario is chosen from a list of baseline candidates, based on various criteria
- Performance standard procedure – emission rates of all baseline candidates are used to calculate a performance standard

GHG project - A specific activity or set of activities intended to reduce GHG emissions, increase the storage of carbon, or enhance GHG removals from the atmosphere.

- Projects may consist of multiple project activities, which are assessed separately
- The GHG effects of project activities are summed to quantify the GHG effect of the project

Additional concepts related to project accounting in the electric sector

Primary and **secondary** GHG effects are considered for all project activities.

Primary effects - The intended change caused by a project activity in GHG emissions, removals, or storage associated with a GHG source or sink.

- Project activities will generally only have one primary effect.

Secondary effects - Unintended changes caused by a project activity in GHG emissions, removals, or storage associated with a GHG source or sink

- Secondary effects are generally small compared to primary effects, but may in some cases counteract the primary effect of a project activity.

Additional concepts related to project accounting in the electric sector

Operating Margin - Electricity generation from existing power plants whose output is reduced in response to a project activity.

- Estimated by approximating the emissions from the specific power plants whose operation is displaced
- Short-run marginal emission rates can be used to estimate these impacts

Build Margin - The incremental new capacity displaced by a project activity, and its associated generation.

- Estimated from GHG emission rates of recent capacity additions or planned capacity additions
- Long-run marginal emission rates can be used to estimate these impacts

Note: relative effects of operating vs. build margin are determined and applied for the project being assessed

Purposes and Uses of Consequential Electric Sector Measures



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Developing recommendation on consequential electric sector emissions impact measures

	Location-Based Method	Market-Based Method
Definition	A method to quantify scope 2 GHG emissions based on average energy generation emission factors for defined geographic locations, including local, subnational, or national boundaries ;	A method to quantify the scope 2 GHG emissions of a reporter based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with contractual instruments, or contractual instruments on their own
How method allocates emissions:	Emission factors representing average emissions from energy generation occurring within a defined geographic area and a defined time period	Emission factors derived from the GHG emission rate represented in the contractual instruments that meet Scope 2 Quality Criteria
Where method applies:	To all electricity grids	To any operations in markets providing consumer choice of differentiated electricity products or supplier-specific data, in the form of contractual instruments
Purposes	<ul style="list-style-type: none"> • GHG intensity of grids where operations occur, regardless of market type • The aggregate GHG performance of energy-intensive sectors (for example, comparing electric train transportation with gasoline or diesel vehicle transit) • Risks/opportunities aligned with local grid resources and emissions 	<ul style="list-style-type: none"> • Individual corporate procurement actions • Opportunities to influence electricity suppliers and supply • Risks/opportunities conveyed by contractual relationships, including sometimes legally enforceable claims rules
<i>Internal uses</i>		
<i>External uses</i>		
Claims supported		
What the method's results omit:	<ul style="list-style-type: none"> • Emissions from differentiated electricity purchases or supplier offerings, or other contracts 	<ul style="list-style-type: none"> • Average emissions in the location where electricity use occurs

Scope 2 Guidance, table 4.1, p. 26

Consequential electric sector emissions impact measures

Legend: Existing text Suggested by Secretariat

Purposes proposed by TWG members

Purposes	
Estimate marginal emission impacts of a company's consumption actions in the reporting year	Enable efficient carbon-aware consumption decisions (siting, energy efficiency, time of use, curtailment, et...)
Estimate avoided marginal emissions associated with a company's procurement actions in the reporting year	Encourage new resource development decisions (location and CFE technology) that prioritize emission reductions
Influence the electricity supply mix	To reflect both short term and long term impacts
Support the development of next generation technologies like storage and smart grids	

Open Forum



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Next Steps

- **February 21st** – due date for submitting draft part 1 deliverable.
- Draft part 1 deliverable should:
 - Be submitted in Powerpoint format.
 - Include justification/rationalization for each element included in the consequential impact statement.
 - Include an initial discussion of scope, i.e. what types of projects/activities are assessed as part of the consequential impact statement.
- **March 6th meeting** – members should be prepared to discuss their proposals, and should have read all posted proposals from other members of the subgroup prior to the meeting.

Thank you!

If you'd like to stay updated on our work, please [subscribe](#) to GHG Protocol's email list to receive our monthly newsletter and other updates.

