Highlights of GHG Protocol Scope 2 Survey Responses from Clean Air Task Force, The NorthBridge Group, and Green Strategies Inc.

And

Reform Proposals from The NorthBridge Group and Green Strategies, Inc.

March 2023

Full CATF-NB-GS comments available here.
NB-GS reform proposals available at: 1) Changes to Market-Based Inventories; 2) Emissions Impact Disclosures; 3) Standardized Reporting Format

Introduction and Needs Statement

For over two decades, the GHG Protocol has influenced how companies address emissions arising from their use and purchases of electricity. The Protocol's original Scope 2 accounting rules, and its subsequent Scope 2 Guidance issued in 2015 to supplement the Protocol's Corporate Standard, have resulted in electricity buyers using their market power to drive significant additional deployment of wind and solar capacity. However, the Scope 2 Guidance no longer adequately directs buyers in support of the actions needed to achieve new, more ambitious goals to address the climate crisis: to fully decarbonize the electricity sector, to maximize greenhouse gas (GHG) emissions reductions, and to ensure a diverse mix of carbon-free electricity (CFE) generation and balancing resources to decarbonize electricity grids affordably and reliably at all times and in all places. Scope 2 accounting rules and the Guidance must be updated to keep pace with both the evolution of buyer best practices and urgent warnings of climate science.

The major problems with the Guidance include:

1) **Market-based accounting rules lead to inventories that are *not* a true and fair account of a company's emissions from electricity use.**

   Under the Protocol and the Guidance, electricity buyers are instructed to create Scope 2 inventories – an accounting of the indirect emissions that occurred in the production of the electricity they purchase from a third party (such as a utility) and use. These inventories are described as representing a "true and fair account" of those emissions. The electricity a reporting entity uses at any location and time comes from a mix of generation sources, and in any given hour on nearly all U.S. grids, fossil resources contribute significant shares of grid-supplied power. There are ways that an entity can impact the generation mix they buy and use, such as by installing solar panels on their roof. Under the Guidance, however, an entity can purchase attributes conveyed by instruments (known as energy attribute certificates (EACs), which in the United States take the form of renewable energy certificates (RECs). RECs are created alongside, and in addition to, electricity generated at a renewable energy facility. Under current rules, reporting entities can use RECs and similar instruments to erase emissions from their inventory -- *without necessarily changing the emissions associated with their actual electricity use -- in any way.* At the time the Guidance was written, this system perhaps made sense – wind and solar deployment was scarce, and building new capacity, regardless of the location, helped mature the industry and bring down costs. That is not the only need today and current practice exposes clean energy buyers to reputational harm.

2) **The rules dissuade companies from making the types of procurements needed to decarbonize the grid in all places and at all times.**

Current rules allow entities to reduce reported Scope 2 inventories by matching load with attributes *on an annual basis* and without regard to whether the generation underlying those attributes was produced at the same time as the electricity they consume or whether the underlying electricity was produced in or delivered to the same grid of that buyer. Without more granular time or location considerations, there is little incentive for buyers to invest in firm and dispatchable carbon-free generation and balancing resources (e.g., storage technologies and load management) to match the time of their use or to prioritize the decarbonization of their local grid.

3) **The rules allow and incentivize interventions to achieve inventory reductions that may have little relation to any actual emissions reductions, thus undermining the Protocol's theory of change that attributing emissions to a company through an inventory and asking that those inventories be disclosed will lead to impact.**

The third problem is that the rules and Guidance sever the links of "*attribution → inventories → disclosure = impact"* – because inventory reductions may not and need not represent actual emissions reductions. There is no requirement under the Guidance that an entity evaluate or even discuss whether an attribute used to erase *reported* Scope 2 emissions was associated with an *actual* decrease in emissions into the atmosphere. And it may in fact be that there is little such association. If one REC comes from a new wind farm in West Texas and another from a new solar farm in West Virginia, they both have the same impact on an inventory despite having very different emissions impact. Perhaps "impact" was considered differently when the Guidance was conceived, but today the impact called for by climate science is decarbonization.

To address these problems, we propose several changes:

- **For the purpose of reporting emissions in Scope 2 inventories, the Guidance should narrow the geographic boundary for the matching of purchased EACs and consumption.** To show a reduction in an inventory, the Guidance should only allow the matching of EACs/RECs from generation sourced within or delivered to their same grid as a reporting entity's electricity consumption. By allowing reporting entities to source EACs/RECs from different grids than where they consume electricity, market-based accounting does not clearly indicate if and by how much a reporting entity is taking steps to mitigate the emissions associated with its consumption. A reporting entity can source EACs/RECs from different grids, while continuing to rely on fossil-intensive generation. This can lead to valid criticisms that Scope 2 market-based accounting method does not accurately reflect reliance of fossil generation and undercuts incentives to help the development of CFE in all locations on the electric grid. By limiting the matching of EACs/RECs sourced from or delivered to the same grid region as consumption, market-based inventories will better reflect emissions from electricity use and encourage companies to procure CFE from the same grids as load.

- **For the purpose of reporting emissions in Scope 2 inventories, the Guidance also should introduce more specific criteria that encourages the matching of EACs and consumption on a narrower time basis than annually.** The current practice of annual matching in Scope 2 accounting limits incentives for reporting entities to consider time in their decision making and undercuts consideration for load shifting, energy storage, and sourcing firm and dispatchable CFE resources. Under annual matching, a reporting entity can simply purchase EACs/RECs from any time period over the course of the year, even if the underlying generation does not coincide with the timing of load. A reporting entity that charges an energy storage system during times of abundant wind or solar and discharges during fossil-heavy time periods has no easy way to demonstrate the GHG benefit of doing so. Placing narrower time matching at the top of the procurement practice hierarchy will encourage reporting entities to consider the timing of their consumption as well as a broader set of strategies and CFE solutions to reduce emissions at given time periods. Linking market-based inventories more directly to the timing and location of consumption as opposed to EAC purchases made irrespective of the timing and location of consumption will help drive the development of resources necessary for decarbonization of electricity grids.[1]

- **In parallel to preparing Scope 2 inventories, the Guidance should add provisions for reporting entities to discuss and estimate GHG reduction impact from procurement.** Companies should be incentivized to assess the extent to which a clean generation project will displace fossil emissions and then be encouraged (and eventually be required) to calculate and report the emissions impacts of that procurement action. The current Guidance does not seek to distinguish between high and low emission impact actions taken by reporting entities. Today, reporting entities can use the market-based method to calculate inventory reductions even when real-world emissions reduction is relatively limited or does not occur at all. And existing market-based inventory calculations may result in equal reductions in inventories from procurements (i.e., yield the same number of attributes) but have widely varying real-world emissions impact.

  The Guidance should adopt new provisions for reporting entities to: 1) discuss how they are achieving GHG reduction impact through CFE procurement and other energy management strategies, and 2) provide estimates of the real world impacts of their interventions. Such disclosure will provide valuable information to the marketplace and incentivize reporting entities to achieve the greatest impact from their actions. Disclosure of avoided emissions estimates may continue to evolve as stakeholders continue to seek consensus and develop best practices.

[1] While our recommended improvements to Scope 2 accounting center on using more time and location-granular information, we recognize that needed data is not immediately available to all reporting entities. Our comments suggest potential options for overcoming near-term gaps as more information becomes available to reporting entities. In cases where hourly data is not available, we identify potential substitute data options and discuss how annual or monthly data and load profiles could be used to estimate hourly load. We also suggest how entities including the U.S. Environmental Protection Agency and Department of Energy could help in providing necessary data and guiding reporting entities what inputs should be used when primary options are not available.

Summary of Reform Proposals from The NorthBridge Group and Green Strategies, Inc.

Appended to our Survey responses were three detailed proposals to improve and modernize accounting and disclosures related to the use and procurement of electricity by reporting entities. These proposals cover: **1)** ***Changes to Attributional Scope 2 Market-Based Emissions Inventories;*** **2)** ***Emissions Impact Disclosures;*** and **3)** ***a New Standardized Reporting Format.*** We summarize those proposals here.

Proposal #1: Changes to Attributional Scope 2 Market-Based Emissions Inventories

The market-based accounting method should be retained, but it must be improved. The purpose of this proposal is to enhance the accuracy, relevance, and transparency of information provided to potential users of the Protocol (e.g., recognition programs, ESG rating companies, investors, consumers, etc.), while continuing to allow flexibility in reporting since reporting entities' abilities, procurement goals, and access to markets and data differ.

This proposal seeks to:

- More accurately measure the emissions associated with a reporting entity's electricity use taking into account the location and timing of purchased carbon-free electricity (CFE) supply (bundled with EACs) and unbundled EACs relative to the location and timing of a reporting entity's consumption.
- Address growing concerns of "greenwashing" where an organization can report zero Scope 2 market-based emissions and claim to consume 100% clean energy even when the buyer clearly relies on grid supply, including fossil generation, to serve its consumption.
- Align U.S. mandatory markets, voluntary markets, and utility non-bypassable CFE by properly allocating EACs to prevent a) double counting, b) double paying for clean energy (i.e., buyers not being able to claim CFE that they already pay for), and c) cost shifting (*i.e.*, buyers able to claim CFE that they do not pay for and may already be purchased by others).
- Measure buyer actions that are needed to decarbonize the grid at all times and in all locations by recognizing the important roles of firm, intermittent, balancing, transmission, and load management resources required to reliably balance CFE supply with system load.

Proposal #1 elements:

1. **The Scope 2 Guidance should indicate that reporting entities should prepare inventories on a more granular basis, when such data is available, and put Granular Certificates or GCs (location and time-stamped) at the top of the Table 6.3 data hierarchy** (highest precision).

2. **The Scope 2 Guidance should count only purchased EACs that are located within or delivered to the same regional grid or balancing authority as load.**

3. **The Scope 2 Guidance should clarify that CFE attributes shall not exceed load in any time matching interval selected.**

4. **The Scope 2 Guidance should allow reporting entities to count equally all EACs that are purchased and retired either directly or on their behalf by their load-serving entity (LSE).**

5. **To prevent double counting, the Scope 2 Guidance should remove from the Table 6.3 data hierarchy "other grid-average emissions factors" location-based data.**

6. **The Scope 2 Guidance should be amended to require buyers to disclose market-based inventories on a regional grid or balancing authority basis.**

7. **WRI should provide guidance and work with recognition programs, ESG rating companies, and climate leadership programs to improve accuracy, transparency and credibility of climate claims based on market-based inventories.**

Proposal #2: Emissions Impact Disclosures

The Protocol and the Guidance should recognize the value of calculating and disclosing *both* attributional Scope 2 market-based inventories *and* consequential avoided emissions -- and the differences in these calculations.

This proposal seeks to:

- More accurately measure the *actual* emissions impact (avoided emissions) to the atmosphere resulting from a reporting entity's electricity procurement and other interventions.
- Enable the Guidance and related disclosures to distinguish between next generation transactions with high carbon reduction impact and reporting entity actions with lower carbon reduction impact.
- Make disclosure of actions that reduce emissions into the atmosphere and the calculation of avoided emissions impact a much more prominent best practice.
- Address current concerns of "greenwashing" where an organization can report a greatly reduced or zero Scope 2 market-based emissions inventory (in an attributional accounting framework) even when the reporting entity does little to reduce actual emissions into the atmosphere.
- Measure buyer actions that are needed to decarbonize the grid at all times and in all locations by recognizing the importance of incremental CFE generation and balancing resources (e.g., firm, intermittent, balancing, transmission, and load management resources).
- Enhance accuracy, relevance, and transparency of information provided to potential users of the Protocol (e.g., recognition programs, ESG rating companies, investors, consumers, etc.), while continuing to allow flexibility in reporting since reporting entities' abilities, procurement goals, and access to markets and data differ.

Proposal #2 Elements:

1. **In addition to calculating a location-based and market-based Scope 2 emissions inventory, the Scope 2 Guidance should require reporting entities to disclose and describe incremental**

actions taken in the reporting year that they believe reduced actual emissions into the atmosphere.

2. **In addition to calculating a location-based and market-based Scope 2 emissions inventory, the Scope 2 Guidance should in parallel encourage the calculation and separate reporting of the consequential avoided emissions impact of a reporting entity's interventions.**

3. **In addition to calculating a location-based and market-based Scope 2 emissions inventory, the Scope 2 Guidance should encourage the calculation and disclosure of a Carbon Emissions Baseline (CEB).**

4. **In addition to calculating a location-based and market-based Scope 2 emissions inventory, the Scope 2 Guidance should encourage the calculation and disclosure of an "Avoided Emissions Score".**

5. **WRI should provide guidance and work with recognition programs, ESG rating companies, and climate leadership programs to improve accuracy, transparency and credibility of climate claims tied to emissions impact.**

Proposal #3: A Standardized Reporting Format

Proposal #1 is intended to improve the accuracy and relevance of market-based Scope 2 inventories, while Proposal #2 is about adding the climate-critical disclosure of avoided emissions impact from interventions. Proposal #3 is about creating a standardized format for reporting those elements – *and other climate-critical information* that will be of high value to the growing set of stakeholders interested in understanding, incentivizing, and rewarding climate beneficial actions by reporting entities.

A standardized format like what we propose would permit reporting entities the flexibility and opportunity to disclose progress across one or more procurement strategies, such as:

- **Improving load / demand-side management** *[measured by changes to Scope 2 inventories and a proposed "Carbon Emissions Baseline"].*
- **Achieving annual matching** (within same regional grid or balancing authority) **of consumption and CFE purchases** *[measured by changes to Scope 2 market-based inventory and a proposed CFE Score].*
- **Achieving hourly 24/7 matching** (within same regional grid or balancing authority) **of consumption and CFE purchases** *[measured by changes to Scope 2 market-based inventory and proposed CFE Score].*
- **Achieving RE100 or CFE100 purchasing goals** (annual across broader geographic market boundaries used by the RE100 initiative today) *[measured by % of annual load matched with CFE attributes using RE100 market boundaries].*
- **Achieving incremental CFE resource development** (and other interventions) *[based on reporting entity descriptions of interventions that may affect emissions into the atmosphere].*
- **Maximizing avoided emissions** *[measured by estimated avoided emissions in tons and Avoided Emissions Score expressed as a percentage of a reporting entity's "Carbon Emissions Baseline"].*

Proposal #3 Elements:

1. **Require ("shall disclose") and recommend ("should disclose") the disclosure of a wider range of information than called for by current Guidance and beyond Scope 2 inventories that will provide additional perspective of the emissions arising from electricity consumption and GHG reduction impact arising from CFE procurement.**

    a. **"Shall" / Required Disclosures**

        i. "Modified" location-based and market-based inventories (see NB/GS Market-Based Modernization Proposal by incorporating time and location granular matching criteria).
        ii. Description of Decarbonization Actions/Discussion of Avoided Emissions Impact (see separate NB/GS Emissions Impact Disclosures Proposal to introduce new provisions to the Guidance for avoided emissions impact disclosure).
        iii. CFE Score (calculated on an annual and/or hourly basis).

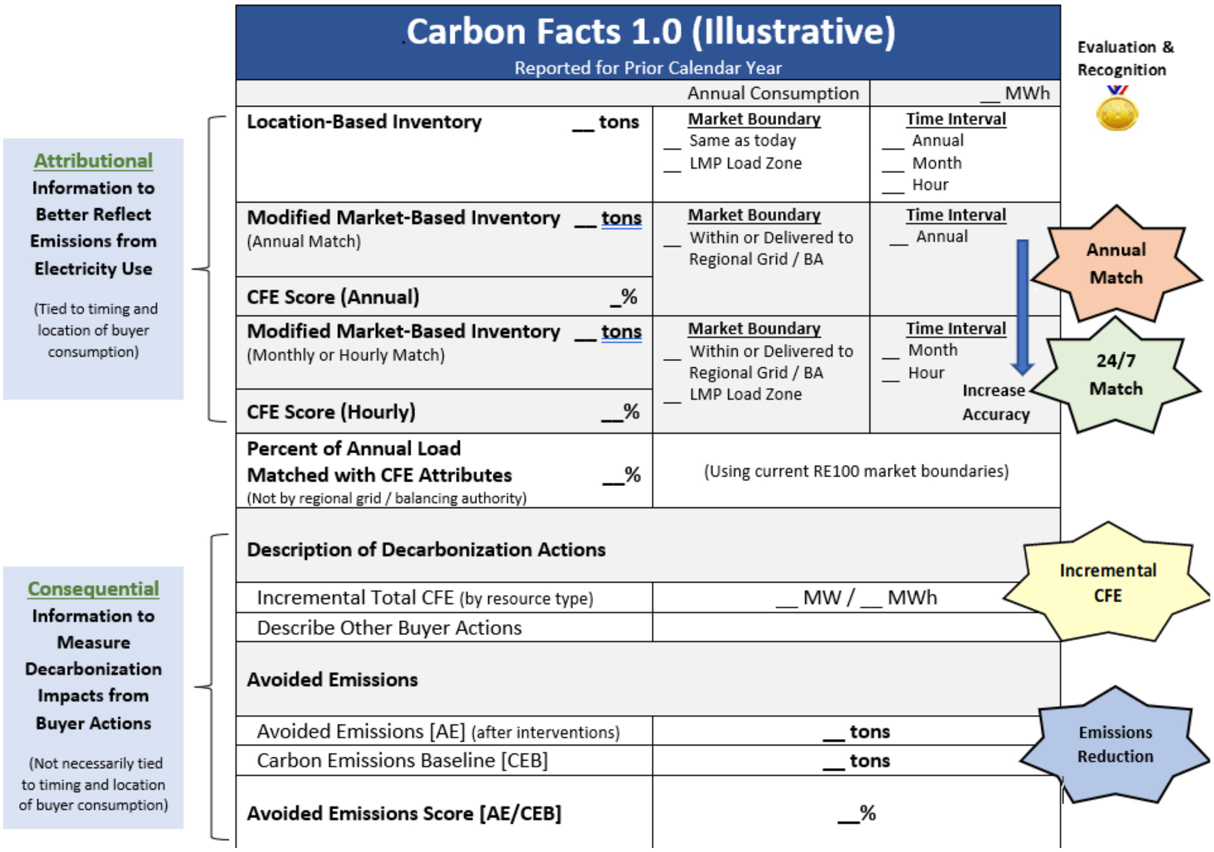
    b. **"Should"/Recommended Disclosures**

        i. Avoided Emissions Quantification.
        ii. Carbon Emissions Baseline (CEB).
        iii. Avoided Emissions Score.
        iv. Percent of Annual Load Matched with CFE Attributes.

    c. **"May"/Optional Disclosures**
        i. Information regarding Unabated Fossil Generation in Retail Supply.
        ii. Information on Transactions made to Mitigate Climate-related Financial Risk from Electricity Use.

2. **Adopt a standard "Carbon Facts" format for reporting information, including location-based inventory, market-based inventory, avoided emissions, and other information related to CFE procurement efforts.**

The granularity and extent of the disclosures that might make up a Carbon Facts label could increase over time. A nearer-term "Carbon Facts 1.0" label might look like this:



We believe a standardized reporting format, like illustrated in the Carbon Facts above, would address many of the GHG Protocol concerns raised by stakeholders, and provide better insight to measure, incentivize, and recognize the climate impact of the range of procurement and other actions taken by reporting entities.

Again, full details on these three proposals and our survey responses can be found here:

GHG Protocol Scope 2 Guidance Survey Responses

Proposals:

1) Changes to Market-Based Inventories;
2) Emissions Impact Disclosures;
3) Standardized Reporting Format