GHG Protocol Scope 2 Consultation: Could be Better

GHG Protocol released a Consultation on their Scope 2 Guidance in October 2025. The objective is to help preparers improve the accuracy of GHG emissions inventories, and enable users to have more confidence in the disclosures. Douglas Hileman Consulting[1] thinks GHG Protocol could do better.

Here's what could be better.

1. Provide hierarchy of quality information for operational inputs (aka "activities") that must be paired with emissions factors to enable calculation of GHG emissions.
2. Create a tiered approach to provide relief to small and medium-sized enterprises (SMEs), and organizations with very small GHG emissions footprint [at least for Scopes 1 and 2].
3. Include a "conform or explain" provisions for using residual emissions factors. This would relieve considerable burden from SMEs and for preparers unable to obtain information from providers of "electricity" as defined in the GHG Protocol.
4. Broaden applicability of "feasibility." Consider organizations' limitations in systems, controls, data and resources – especially SMEs.

Watch for companion pieces on Context and Perspectives, The Good. and Still Missing.

Emissions Factor Hierarchy

The Consultation offers a hierarchy of emissions factors, which should encourage companies to adopt those of higher accuracy, resulting in higher quality emissions calculations and disclosures.

[1] The perspectives are mine alone, and do not reflect any client, former employer, or professional organization I have been involved with.

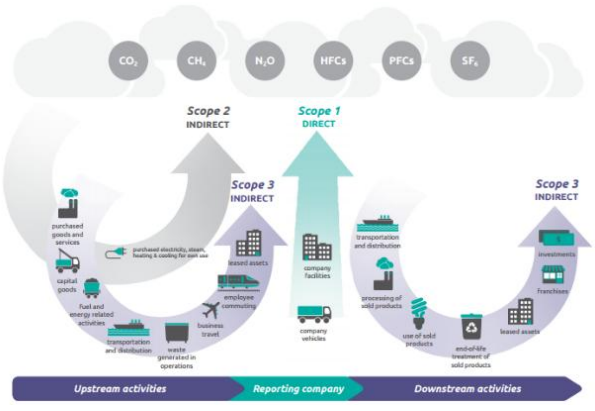
However, this only addresses half the problem of hierarchies. Emissions factors must be paired with data on activities (or "operational inputs[2]") for calculations to determine the emissions themselves. Therein lies the problem: Companies don't necessarily have data on those activities. A hierarchy is needed here, too.

For example, companies renting an office may pay a monthly fee for electricity usage, but have no data on consumption. The fee may be in one of many forms: consistent through the year; varying by month; or lumped in with a fee that also includes water and trash removal. The fee could be negotiated in terms of a lease, with the actual information tightly controlled by Legal – not available to the Sustainability leader or vendors supporting Scope 2 calculations.

Building owners could charge fees for using HVAC systems after hours; these charges must include consideration for the electricity required to run them – right? But how much? Scope 2 Guidance say that electricity is included when it is "purchased and consumed" – and you're doing both.

These challenges illustrate the need for a defined hierarchy of parameters for operational inputs (aka "activities").

Remember, activities *must be matched* with emissions factor to yield a quantity of CO2e. If you have the absolutely best emissions factor, but not the activity to go with it, you can't perform a calculation. [Try multiplying square feet by grams of CO2e per kilowatt hour!].



A defined **hierarchy of data sources** for operational inputs is arguably of more use to preparers than the hierarchy of emissions factors. After all, companies

[2] GHG Protocol uses "activities" throughout. I prefer "operational inputs." The available information is often in the form of an invoice, a meter reading, or a measurement. Granted, these reflect an "activity" of some sort – either directly or indirectly. But "operational input" seems to resonate with folks in the company who provide the information, often from Operations.

can change the types of data and information they collect to improve the quality of the input for operational activities. Companies have little or no influence over utilities providing electricity.

Hierarchies of both activities and emissions factors would help companies "climb the ladder" of hierarchies for operational inputs and emissions factors.

GHG should embrace this concept now – in a revision of Scope 2 Guidance. This concept will be even more applicable when companies turn to the challenges posed by Scope 3 emissions calculations.

Suggestion: Prepare you own hierarchy of quality for data sources for operational inputs (aka "activities"). Direct, verifiable measurements are at the top. Estimates based on broad, global references that don't necessarily align with the activities are towards the bottom. Build out the remainder of a hierarchy that is fit for the organization's purpose.

A Tiered Approach

The Consultation hints at a tiered approach, but it could go further and provide relief to smaller and medium-sized enterprises (SMEs).

Large companies produce the vast majority of GHG emissions. Sources suggest that SMEs comprise more than 90% of all businesses worldwide, and over half the employment. They comprise less than 30% of all GHG emissions. There are some limitations to data

COSO is a collection of accounting professional associations that collectively created the Internal Controls Integrated Framework (ICIF). The Sarbanes-Oxley Act mandated robust internal controls over financial reporting. With that, COSO's ICIF became de facto regulatory requirement.

Many stakeholders now expect Sustainability information. Much of the information has been unstructured, or simply not available. COSO published "Achieving Effective Internal Controls over Sustainability Reporting (ICSR) in 2023 to help close the gap. The document describes how Sustainability information (which would include GHG emissions) can use COSO's five components and 17 principles. It's a "master class" in what should support good data. Consider COSO ICSR as a resource to assess the feasibility of your GHG emissions calculations and reporting efforts. The model is topic-neutral, and COSO ICSR is free. I'm a fan. I'm also one of the six authors of the document.

readily available[3]: how much of this is Scope 2, how many companies disclose Scope 2, how good is the data, does this vary by geography and/or industry? But the truth remains: thousands of SMEs are just entering the world of GHG emissions calculations and disclosures.

It is absurd to think that SMEs will have access to emissions factors that are contemporaneous with their use (and payment) of purchased electricity. The Scope 2 Guidance would be daunting to read if this is the expectation. The Consultation offers a safety valve: feasibility. "Feasibility" was discussed in the context of emissions factors: availability; free vs. costs, etc.

Feasibility also applies on the operational input side. This has been thoroughly demonstrated by the journey of Sustainability reporting for nearly three decades.

Suggestion: First, get familiar with the GHG Protocol Corporate Standard and key Guidance documents. Take a risk-based approach to identify and focus on areas of greatest relevance and opportunities. Then, leverage COSO ICSR to build and scale your program to be efficient and effective, and fit for your purpose.

Residual Mix (Criterion 9, p. 27)

Emissions factors are a ratio of how much CO2e is produced for each unit (often per kilowatt hour – kWh) of electricity generated. Market-based emissions factors are what any particular utility obtains and provides for customers to consume. GHG Protocol considers the emissions factor for electricity generated from renewable resources (solar, wind, etc.) to be zero. Utilities consider the amount of this zero-emissions power when they calculate their market-based emissions factor.

In deregulated markets, customers can select to purchase only electricity from renewables. This helps them reduce their reported emissions. It also leaves behind a power mix that is "dirtier" after that zero-emissions electricity has been claimed. This is the **residual emissions factor**.

[3] At least for purposes of writing this article!

The residual emissions factor is more accurate for users that do not avail themselves of zero-emissions electricity. So far, so good.

The Consultation includes two "shall" provisions and three "should" provisions for reporting organizations. It can be frustrating to pry residual emissions factors from utility providers.

These requirements are impractical, at least in the short term. They may drive companies into the hands of vendors with back channels to this information. This imposes an unwelcome burden on many companies.

Suggestion: Require or encourage the disclosure of the percentage of Scope 2 emissions using market-based emissions factors were calculated using residual emissions factors. The disclosure itself should motivate preparers to increase adoption of this approach.

The Carbon Disclosure Project's original philosophy for voluntary disclosure carbon emissions arose from "what gets measured gets done." If GHG emissions are calculated, this is the essential first step to reduce them.

Feasibility

"Feasibility remains central." (p. 29) Well, almost.

The Consultation proposes an exemption for hourly matching of emissions factors for reporters over a certain threshold if it is not feasible to provide the desired level of accuracy of the information.

The first mention of feasibility is buried way back on page 29. Very few companies are at scale to design and implement systems to gather market-based emissions factors contemporaneous with the consumption of "electricity," as defined.

Smaller and medium-size companies do not have the resources to achieve the ideal degree of precision. Feasibility should apply to everyone, and broadly across the provisions of Scope 2 Guidance.

Suggestion: Mention feasibility early and often throughout the Scope 2 (and other) standards and Guidance. Encourage transparency where the desired inputs – whether operational/ activity or emissions factors – are not readily available, and where estimates have been used.

The Consultation references a CDP resource that shows many reporters have relatively modest electricity use while a small number of very large users account for most consumption. (p. 43) This is a hint towards a tiered approach for the level of effort expected for organizations to invest in pursuing ideal quality of GHG emissions.

Feasibility poses challenges to smaller (and not-so-smaller) companies in obtaining data and information from their own records, vendors and business partners. This will become even more obvious when companies turn their attention to Scope 3 emissions.

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