GHG Protocol Scope 2 Consultation: The Good

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] has some good things to say. Watch for companion pieces on Needs Improvement and Still Missing.

1. Monitoring and updates are always a good move.
2. The Consultation restates emphasizes key concepts that many overlook.
3. It's a reminder to avoid double-counting of Scope 2 emissions, although this is more common than you think.
4. Temporal alignment and using residual emissions factors should yield more accurate GHG emissions inventories.
5. "Feasibility": it's said out loud! (But not enough).

This is one in a series, including: Context and Perspectives; Needs Improvement; and Still Missing.

Monitoring and Revisions: Always a Good Move

Laws, regulations, standards and frameworks are developed to meet the needs and objectives of their time.

My friend Gemini tells me it is still technically illegal to wear a fake mustache in church if it makes people laugh, and that women in Vermont need a man's permission to get dentures. On a more serious note, Vice President Al Gore led the National Partnership for Reinventing Government, an effort that eliminated approximately 640,000 pages of internal agency rules during its seven-year run.

Scope 2 Guidance was released in 2015. There has been a lot of attention to carbon accounting and disclosures since then. TCFD[2] was launched in 2017, and is already embedded into ISSB S2, a global accounting standard. Tools and technology have expanded and improved dramatically. It is time.

[1] The perspectives are mine alone, and do not reflect any client, former employer, or professional organization I have been involved with.
[2] Task Force for Climate-Related Financial Disclosures.

Suggestion: If you are not yet familiar with GHG Protocol Scope 2 Guidance, read it. Review the Scope 2 Consultation and submit comments, either on behalf of your organization or your own views.

Major standards and frameworks include provisions for monitoring and improvements. COSO's frameworks for internal controls[3] includes principles for monitoring, considering the rate of change, communicates results, and monitoring corrective actions. A fundamental principle driving ISO management systems is for continuous improvement. GHG Protocol has adopted a good practice in an effort to improve, remain relevant, and to provide a standard and Guidance that are useful and fit for purpose. Furthermore, they are open for public comment. "Decision-useful" and "fit for purpose" is up to you.

Restating and Emphasizing Key Original Concepts

It also states that "Scope 2 covers indirect greenhouse gas emissions from the generation of *purchased and* consumed electricity, *steam, heat and cooling*" [emphasis added (p.4)]. This has been the case from the outset. "Electricity" is the term used throughout for convenience. As a result, many preparers miss steam, heat and cooling. This statement should remind preparers to include steam, heat and cooling. It should also remind preparers to couple purchased and consumed.

GREENHOUSE GAS PROTOCOL

[3] Widely used as the framework for financial reporting. COSO released supplemental Guidance on "Achieving Effective Internal Controls over Sustainability Reporting (ICSR)" in 2023. "Sustainability" includes climate and GHG emissions – so the components and principles apply. Douglas Hileman is an author of the COSO ICSR document.

Suggestion: Preparers should revisit the definition of Scope 2 emissions in the context of their chosen organizational boundary [financial control, operational control, equity share]. This may not always be easy. In fact, companies may need to calculate GHG emissions using multiple organizational boundaries (see box).

Avoid Double-Counting

One objective of defining Scope 1 and Scope 2 emissions is that all emissions from combusting fossil fuels are included – and they are counted exactly once.

This is not always as straightforward as it might seem. Consider one business scenario (see box).

Company X makes outdoor apparel. They have one factory, a warehouse, and a 10 standalone stores.

- Company X has a joint venture (JV-1) with Retailer Y, with 20 co-branded locations.
- JV-1 also operates pop-up locations to promote significant product roll-outs, and seasonal surges in sales.
- To entice increased foot traffic to their locations, Building Owner Z provides power to JV-1's contract at no charge.

There are some curious applications of GHG Protocol, even in this simple business example.

- JV-1 **uses** electricity at their pop-up, but they **do not pay** for it. This electricity does not meet the criteria of "purchased electricity." If not within this definition, it would not qualify as their Scope 2 emissions for JV-1. But whose is it? It is logical that Building Owner Z would own these Scope 2 emissions – but it is not JV-1's responsibility to pursue this.

- Suppose that Retailer Y owns 80% of JV-1. Company X has distinctive product knowledge, so they operate all the JV locations. Suppose these two companies use different organizational boundaries.
- Company X uses the **equity share** approach, so they will disclose only 20% of the emissions from JV-1 to match their equity share.
- Retailer Y selects the **operational control** approach to their disclosures, then they will include zero GHG emissions from JV-1.

Only 20% of the actual Scope 2 emissions are included in the sum of the inventories of the two companies. Where did the rest go?

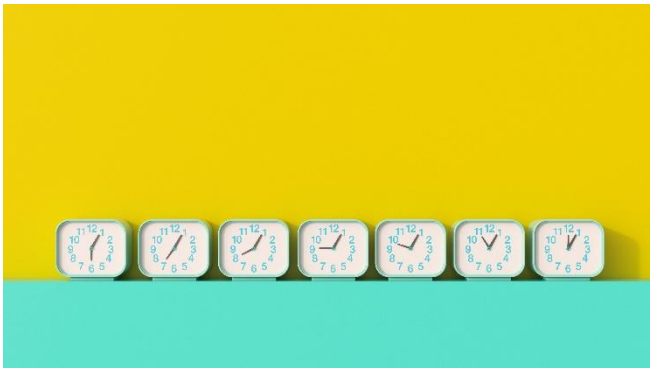
Suggestion: Identify all business partners where your organization may have financial or operational control, or equity share arrangements. Identify where these interests involve use of electricity, steam, heat or cooling. Obtain contractual details and contact information as may be useful to enable GHG emissions calculations.

But Wait – There's More

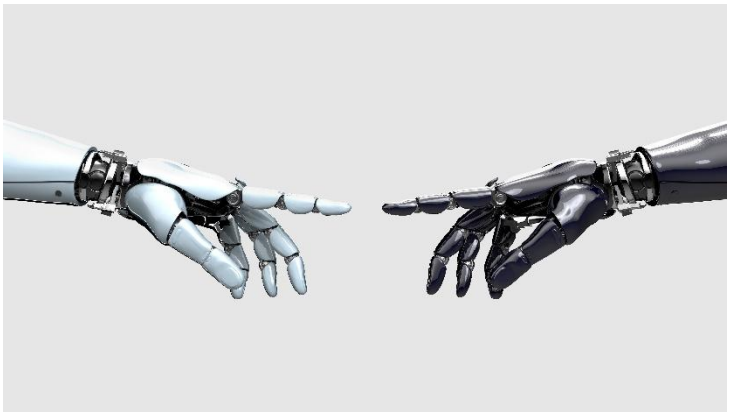
To make things even more interesting (and complicated), Building Owner Z uses the financial control approach, and the three entities communicate with each other. Any or all of the companies may need to calculate GHG emissions inventories using multiple approaches to meet the needs of their business partners. Each will disclose the inventory according to the operational boundary they selected (and identified in their disclosures). It is a tedious, time-consuming, and cumbersome effort to retrieve data to enable these calculations. Or estimates. It can also be embarrassing to inform business partners that you can't get it – while you are making your own disclosures.

Suggestion: Consider calculating GHG emissions using all three options for organizational boundaries, regardless of the one selected for disclosures. At a minimum, do this for assets or activities where the organization has shared roles, responsibilities, or control with others.

Temporal Alignment



Matching the emissions factor more precisely to the time that electricity is consumed should improve the accuracy of the GHG emissions calculations and inventory. Emissions factors change over time. During periods of extreme electricity demand (August afternoons in Phoenix), power companies need to purchase electricity wherever they can get it. They may activate gas-fired peaker plants, or buy electricity generated by other companies from burning oil or coal.



The Consultation proposes matching emissions factors with the time electricity is consumed. In fact, the Consultation proposes this hour-by-hour. See the companion piece on "Needs Improvement" for more on why this is problematic.

Suggestion: Begin research on the type of data provided – or available from – providers of electricity[1]. I you now use annual emissions factors, see if monthly emissions factors are available. If you use vendors to perform or support GHG emissions calculations, ask about the intervals they use for emissions factors. If they use annual factors only, ask what their plans are to improve temporal alignment.

Residual Mix

The Consultation proposes more use of residual emissions factors. This should improve the accuracy of GHG emissions calculations, where it is feasible.

A residual mix emissions factor is a more accurate indicator of the carbon footprint of electricity actually consumed, rather than what the electricity provider sells in the aggregate.

Customers can specify purchase of electricity from renewable sources in deregulated markets. My home utility, for example, is the Los Angeles Department of Water and Power (LADWP). Customers – both residential and industrial - can specify renewable energy in increments of 10%. The market-based emissions factor for electricity purchased from renewable sources is zero.

But other customers are purchasing (and consuming) what's left over; the emissions factor is higher. Preparers that use the annualized emissions factor provided by the utility are understating their GHG emissions, since it hasn't removed the consumption of renewables by others. When companies have robust participation in purchase of renewables, the difference between the "ordinary" market-based factor and the residual emissions factor can be considerable. This inaccurate data could cause companies to direct their efforts to reduce electricity consumption (and emissions) inefficiently.

Suggestion: GHG Protocol's attention to residual emissions factors is a good reminder for preparers to consider this as they gather data to calculate their emissions. This should prompt consultants to pursue and use these factors.

Feasibility

"Feasibility remains central" is the direct quote – although it is buried back on page 29.

The Consultation has this as part of rationale for market-based method updates. The Consultation proposes exemption for hourly matching of emissions factors for reporters over a certain threshold. 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 concept is essential. The Consultation provides a hint (not strongly enough, in my view) of a "tiered approach." The amount of emissions and the ability of companies to obtain the highest quality primary data can affect the level of effort they devote to calculating GHG emissions and the burden going forward.

Suggestion: Small and medium-sized enterprises (SMEs) and companies doing their first or second GHG emissions calculations should consider feasibility – especially for SMEs - as they embark on their journey. I advocated for broader applicability and use of "feasibility" in my comments to GHG Protocol.

Douglas Hileman has helped companies with carbon accounting and reporting, Sustainability reporting, environmental and safety. Effort has been throughout program life cycles: envision; design; implement; monitor; audit; and improve. He is an author of COSO's "Achieving Effective Internal Controls over Sustainability Reporting (ICSR)". He was the senior environmental management specialist on the Volkswagen Monitor Team.
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