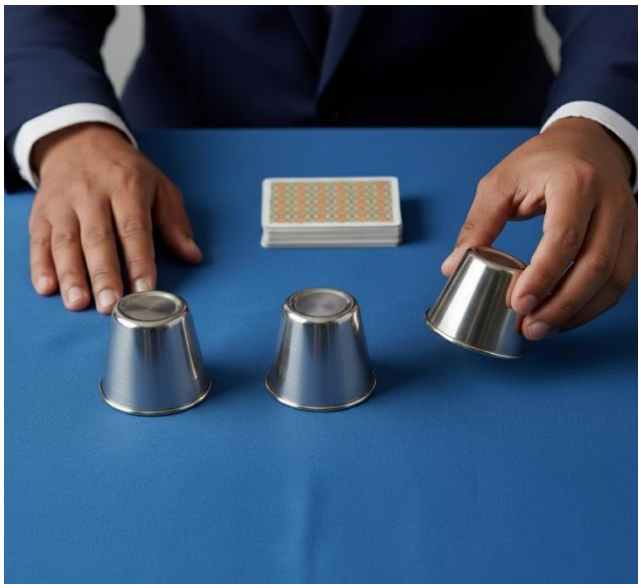
GHG Protocol Scope 2: Still Missing



GHG Protocol released a Consultation on their Scope 2 Guidance in October 2025. Douglas Hileman Consulting[1] submitted comments on the good and the bad.

However, there are still some things missing. Including some major things that place a disproportionate burden on preparers, and likely contribute to backlash against carbon accounting altogether.

1. "Feasibility" is mentioned, but not enough. It should be considered more broadly, notably for first-timers and for small and medium-sized enterprises (SMEs).
2. The burden for providing emissions factors should be shifted from preparers to electricity providers. This includes residual emissions factors and temporal alignment.
3. In addition to a hierarchy of preference for types of emissions factors, there should be a hierarchy of preference for the types of operational inputs (aka "activities") are selected for calculating GHG emissions.
4. The Consultation would require adoption of a hierarchy of preferences for emissions factors for calculating GHG emissions. However, there is no requirement or suggestion that preparers disclose what types of emissions factors they used.

Feasibility

As noted in "Could be Better" post, another consideration for **feasibility** should include the availability of resources to perform calculations, especially for entities that are smaller and/or have limited GHG emissions. Many companies simply do not have systems, controls or resources to produce the "perfect" Scope 2 emissions inventory. Building owners, providers of "electricity" (as

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

defined) do not have information or do not respond. Many activities are not significant in the overall scheme of an organization's GHG emissions inventory, especially once they begin work on Scope 3 emissions.

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.

Shift Burden to Electricity Providers

Some utilities provide general information, such as the location-based and market-based emissions factor on an annualized basis. The Consultation would have preparers match emissions factors to electricity purchase (and consumption) on an hourly basis.

Providers of electricity should provide data and information on the GHG content of the electricity they sell.

Emissions Factors

It is notoriously difficult to obtain market-based emissions factors from utilities. Some disclose it on their websites. Some disclose via CDP [the leading disclosure portal]. It may be on the website of Public Utilities Commissions. It may be in Sustainability reports or other disclosures. These are on *an annual basis*.

Preparers are bearing the burden of hunting down emissions factors; this wild goose chase is arguably a key reason they give up and incur the cost of engaging a vendor. It shouldn't be this hard.

Electricity providers know the power mix they obtain and provide. They have the data on who voluntarily purchases renewable energy, and how much and when. They can calculate gross and net ("residual") GHG emissions on a range of timeframes. Electricity providers serve thousands of customers who are gathering data to enable Scope 2 emissions calculations. Remember, one objective of the Standard and Scope 2 Guidance is for all Scope 1 and Scope 2 emissions to be counted exactly once. The few large companies responsible for the key input to enable the calculations are the electricity providers. They have systems and tools to accurately track (and bill for!) the electricity consumed.

It is not farfetched to imagine a scenario where the GHG emissions from electricity purchased appear right on the bill!

Temporal Alignment

The Consultation would have preparers align purchase and consumption of electricity with the emissions factor for that electricity. This concept of temporal alignment incorporates the concept of residual emissions and time-of-use. It should make for more accurate calculations and disclosures. It is also utterly infeasible for most preparers, who are often lucky to obtain market-based emissions factors from providers of electricity on an annual basis.

The US EPA has published the Emissions & Generation Resource Integrated Database (eGRID) for years[2]. This source includes data that forms a convenient basis for location-based emissions factors, including options by state or by regional grid.

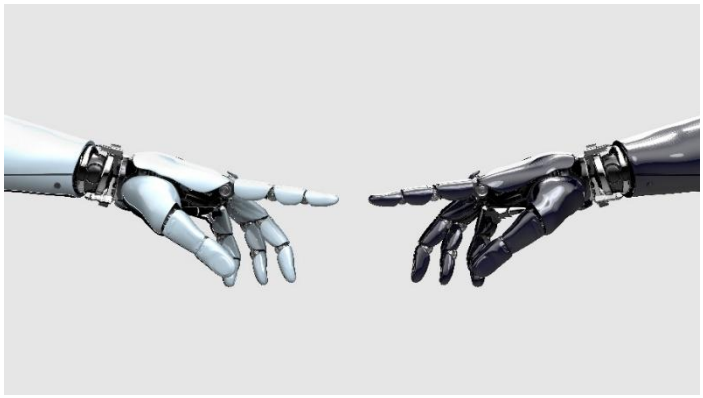
The convention for location-based emissions factors is that they lag the actual reporting period; the location-based emissions factors used for calendar year 2025 reporting were published by the U.S. EPA in 2025 – and are the emissions factors for calendar year 2024. If market-based emissions factors

[2] See https://www.epa.gov/egrid.

provided directly from the utility are from a prior reporting period (say, three months prior), at least their customers have something to go on.

As electricity providers improve their tracking and reporting processes as driven by the GHG Protocol's Scope 2 Consultation, the quality (including alignment of the timing) of market-based emissions factor should improve over time. So should their ability to calculate market-based emissions (including residual emissions) at shorter intervals.

The US EPA has incurred significant cuts to budget and headcount since January 2025 – over 20%, with projections of up to one-third within the coming months. Companies should not assume that the EPA website will continue to be available for these emissions factors. But where does this information come from? The same utility providers where companies purchase their electricity.



Providers of electricity have all the data, but consumers of electricity have to do all the footwork. Electricity providers should provide CO2 information on each bill. If an airline can do it for each flight segment, why can't the power companies?

This would relieve preparers of a considerable burden. It would also reduce costs. It would also provide more accurate data for preparers to use in developing strategies to pursue emissions reduction targets.

Suggestion: Lobby your electricity providers for emissions factors, to the highest degree of accuracy, and at intervals as short as practical. If you use a vendor to support or calculate GHG emissions, ask about their approach, its effectiveness over the Scope 2 emissions in your company's portfolio, and how they are advocating for further improvements.

Disclosure of Emissions Factors Used

The Consultation would have preparers use higher quality emissions factors, both for location-based and market-based emissions factors. The Consultation pushes for further precision with residual emissions factors and temporal alignment.

This may be feasible for very large consumers of electricity (industrial locations, battery energy storage systems, etc.). It is not so feasible for many others.

There is no requirement for preparers of GHG emissions inventories to indicate what emissions factors are used. It is notoriously difficult to obtain market-based emissions actors (general or residual); even companies attempting to be very accurate may have to use different types of emissions factors for different locations.

This poses challenges for comparability. Investors and external stakeholders compare emissions of prospective investments. Internal management compares emissions among locations in their portfolio, to help identify and prioritize improvements in their strategy to reduce emissions.

Suggestion: Encourage companies to disclose the percentage of GHG emissions using market-based emissions factors that were calculated using residual mix emissions factors. Encourage companies to voluntarily disclose if they have plans to increase this proportion over time, and whether they have resources committed to this effort.

Douglas Hileman has helped companies design, implement, improve, and audit programs. Focus areas have included carbon accounting and reporting, Sustainability reporting, environmental and safety. Client needs included compliance, transactions, litigation support, and enforcement. 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.