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Six things wrong with the GHG Protocol's proposals for market-based scope 2 accounting

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This analysis relates to the GHG Protocol's public consultation on the revisions to its scope 2 guidance (consultation published on 20th October 2025: https://ghgprotocol.org/ghg-protocol-public-consultations).

1. Failure to distinguish between buying attributes and buying electricity

The consultation proposals fail to clarify that market-based accounting only reflects the purchase of the *attributes* associated with generation, and that the method does not reflect the purchase of the electricity itself. For example, it is possible for a company to purchase *electricity* from a coal-fired power station but purchase the *emissions attributes* from a windfarm, and the market-based method only reflects the latter.

While it is possible for a reporting company to purchase attributes and the underlying power together, the market-based method is only concerned with the purchase of the attributes.

The GHG Protocol proposes to clarify that the market-based method is for 'quantifying scope 2 from contractually *purchased electricity* via contractual instruments' (GHG Protocol, 2025a, p. 8). This is wholly misleading as the market-based method is only about the purchase of *attribute* instruments and not 'contractually purchased electricity'.

Solution: The GHG Protocol should explicitly and consistently state that the market-based method reflects only the purchase of attributes and not the purchase of electricity.

2. Inaccurate value chain claims

The GHG Protocol proposes to 'reaffirm the place of scope 2 reporting within an attributional *value-chain* GHG inventory' (GHG Protocol, 2025a, p. 6). However, the proposal for time and location matching is not sufficient for accurate *value chain* inventory claims.

A 'value-chain inventory' is an inventory of emissions from all the sources *used* in the value chain, but time and location matching of attributes does not warrant a claim to have only used electricity from one specific generator within the deliverable mix of generation.

E.g. it isn't accurate to buy time and location matched attributes from a wind farm and claim 'We only *used* power from wind farm X, and therefore our *value chain* electricity emissions are zero'.

Sustainability claims and accountability standards are clear that it is not possible to claim to have used only one specific input from a mixed deliverable pool (Accountability Framework initiative, 2025; ISEAL, 2025), and prior independent research shows the same conclusion (Brander & Bjørn, 2023).

Purchasing time and location matched attributes allows other types of claims, e.g. 'We matched our power consumption with attributes from deliverable generation' or 'By buying matched certificates we hope to have supported more clean generation'.

If reporting companies were to claim, based on time and location matching, that they only use specific sources within mixed deliverable supply pools, they will be making a false claim and will face reputational and litigation risk (e.g. see State of Montana (2025)).

Solutions: The GHG Protocol should provide clear guidance on how to interpret market-based accounting with only time and location matching: a. it is not sufficient for a value chain inventory; b. it should not be interpreted to imply that the reporting company has only used the power associated with the attributes that it has purchased; c. it is a form of 'performance accounting' (Gillenwater, 2025) intended to increase the deployment of clean energy (however, see Problem 3).

An alternative solution is to include a causality requirement (in addition to time and location matching) to justify the claim to have been served by a specific source within a deliverable supply pool (Bjørn et al., 2025; Brander & Bjørn, 2023).

3. Low likelihood of impact

One of the motivations for revising the existing scope 2 market-based accounting rules is to increase the likelihood that purchasing energy attribute certificates (EACs) will cause an increase in the deployment of clean energy. However, there are a number of reasons for expecting that the proposed revisions have a low likelihood of achieving impact:

a. It is probable that many companies will only undertake time and location matching when EACs are low cost, i.e. when they are from existing non-additional clean energy generation. Companies are likely to avoid precisely the times/locations when purchasing EACs could be impactful.
b. Because the revenue from EACs is uncertain investors risk-adjust projected EAC revenues, and therefore purchasing EACs may not influence investment decisions.
c. The proposals do not include specific incrementality requirements, e.g. maximum age for generation facilities, or other requirements to foster additionality, e.g. financial tests to show that generation facilities would not have been built in the absence of EAC revenues[1].

[1] Modelling studies show that some form of incrementality or additionality requirement is needed for time and location matching to be impactful, e.g. see Xu et al. (2024) and Gagnon and Brown (2025).

d. It is possible that in some cases the proposals will disincentivise companies from signing power purchase agreements (which are often necessary for new project development), as EACs from PPA generation that do not match the time and location of consumption cannot be used.

It may be argued that time and location matching is more likely to be impactful than the existing market-based rules, however the key point is that there are reasons for expecting that the proposals will not be impactful in absolute terms, regardless of whether they are fractionally better (or worse) relative to the status quo.

Solution: Introduce incrementality requirements to increase the likelihood of aggregate-level impact, or additionality requirements to increase the likelihood of project-level impact. Also (or instead) introduce separate consequential reporting to reflect changes caused by reporting companies (Brander et al., 2018; Brander & Bjørn, 2023; Gillenwater, 2025; TCAT, 2025).

4. No differentiation between impactful and non-impactful actions

The proposals do not differentiate between companies that undertake impactful forms of attribute procurement, e.g. signing a long-term physical power purchase agreements or purchasing EACs from new generation with proof of additionality, and companies that undertake actions with a lower likelihood of impact, e.g. buying low-cost hourly EACs from existing generation facilities. This is highly problematic for an accounting method if the numbers within disclosures do not reflect material differences between reporting entities.

Solution: Introduce tiered reporting to differentiate procurement options that are more or less likely to achieve impact (assuming that market-based accounting is intended as a form of performance accounting where the primary purpose is to drive impact).

5. Standard supply service creates challenges

Standard Supply Service (SSS) refers to electricity generation that a company supports via mandatory charges, or via taxation if the government owns the majority of the generation facility. The proposals state that companies can only use attributes from SSS up to their pro rata share, i.e. based on quantity of their power consumption (GHG Protocol, 2025).

One challenge with this proposal is the difficulty of identifying whether an EAC comes from SSS and the appropriate pro rata share, i.e. an individual reporting company may not have the information or resources to determine this. Another problem is that a generation facility may have been supported via mandatory charges in the past but is no longer receiving payments, which raises the question of whether it should still be designated as SSS or not. A further issue is that mandatory payments may not be levied evenly on all consumers based on their consumption (i.e., different power pricing rates—industrial vs. commercial vs. residential), in which case a pro rata allocation based on consumption will not fairly reflect who paid for investments in the clean generation.

It appears that SSS may be intended as a way of increasing impact, i.e. the SSS rule will reduce the number of EACs available for voluntary procurement, which in turn may increase the price of EACs, and drive more investment in clean generation. However, in some jurisdictions there may be large amounts of existing clean generation that is not SSS, and the glut of non-additional EACs will reduce the likelihood that the EAC market will achieve impact.

Solutions: Introduce conservative rules for identifying non-SSS EACs, e.g. in the absence of third-party certification or an attestation that EACs are not from SSS it should be assumed that they should not be used for voluntary procurement. To further address the issue of impact – see the solutions to Problem 3 above.

6. Lack of information on contracting or causing fossil generation

Companies can directly contract for fossil generation to meet their consumption but there is no part of the scope 2 proposals (including the consultation on consequential methods) that provides useful information to stakeholders or investors on the emissions from contracted electricity supply for own consumption. This is a major omission for an accounting standard that is intended to provide information on the emissions from purchased electricity.

It is also possible for a company to cause additional fossil generation by contributing to load on a grid (even if it doesn't directly contract for fossil power), but the current proposals do not provide information on this.

Solutions: Require separate disclosures on the proportion of consumption that is served by different contracted generation types, e.g. coal, gas, renewable etc. Also require separate reporting of a 'consumption impact emissions' metric, which shows the marginal impact of the company's load on the grid. This is useful in cases where the company does not necessarily contract for fossil-generation but nevertheless its load contributes to high marginal emissions, including the build-out of new fossil-generation.

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