

PRE-CONFERENCE WORKSHOP



IDENTIFYING RENEWABLE

ENERGY MARKET

CONSENSUS ON UPDATES TO

MARKET-BASED SCOPE 2



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Meeting Purpose:

Discuss select potential updates to the GHG Protocol Corporate Standard's Scope 2 Guidance.

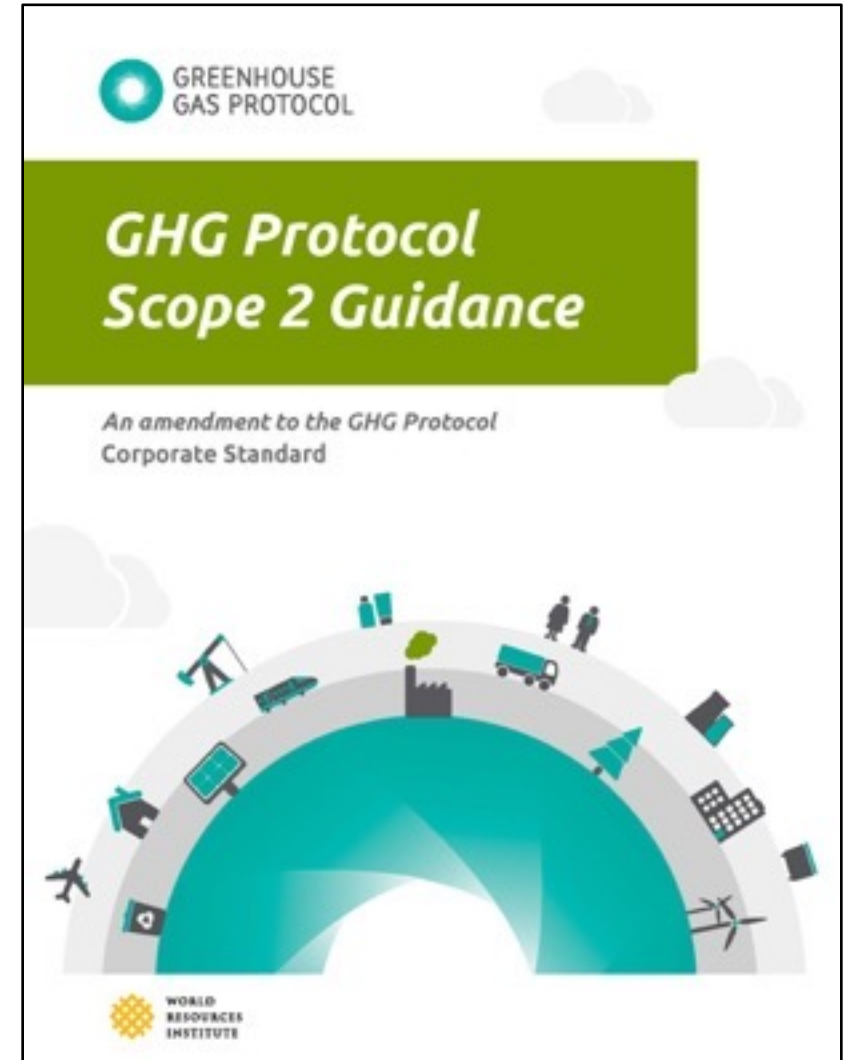
- About the Guidance
 - Dual reporting = Location-based and Market-based
- Today = focus on potential changes to market-based accounting
- Goals:
 - Increase understanding
 - Explore feasibility
 - Identify benefits and challenges
 - Find areas of consensus?

Who is in the Room?



Scope 2 Update Overview

Kyla Aiuto,
Scope 2 Manager, GHG Protocol



Today's Topics for Discussion

1. Market Boundaries

- Laura Vendetta, 3Degrees

2. Order of Operations

- Holly Lahd, Meta

3. Additionality Criteria/Impact

- Peggy Kellen, CRS

Antitrust Statement

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Rules & Requests

- Chatham House Rule
- Please be courteous and constructive
- ‘Suspend your disbelief’
- Raise your hand to speak
- Say your name and organization
- Keep comments brief
- Provide your name and email for meeting summary materials.

Market Boundaries

MARKET-BASED SCOPE 2 UPDATES

Current Market Boundary Guidance

Defined as – The geographic boundary from which certificates can be purchased and claimed for a given operation’s scope 2 accounting and reporting.

Supporting details:

- Intended to promote broader areas of consumer choice & the building of RE resource in the most economically viable locations.
- Market boundaries could be limited to single country or a group of countries if they recognize each other’s certificates as fungible and available to any consumers located therein—not limited to just physical grid interconnection.
- If not specified by regulation or program, instruments should be from regions reasonably linked to the reporting entity’s electricity consumption.

Alternative Approaches to Determining Market Boundaries

Granular Market Boundary

Defined as – Using local electric grid plus any interconnected grid system, strict demonstration of deliverability using power flow models, congestion pricing analysis, or similar approaches.

Flexible Market Boundary

Defined as – Market boundaries need no relation to a physical grid because attribute markets can be different (e.g. larger) than the physical grid network; Attributes are not actually associated with the physical power delivered through the grid.

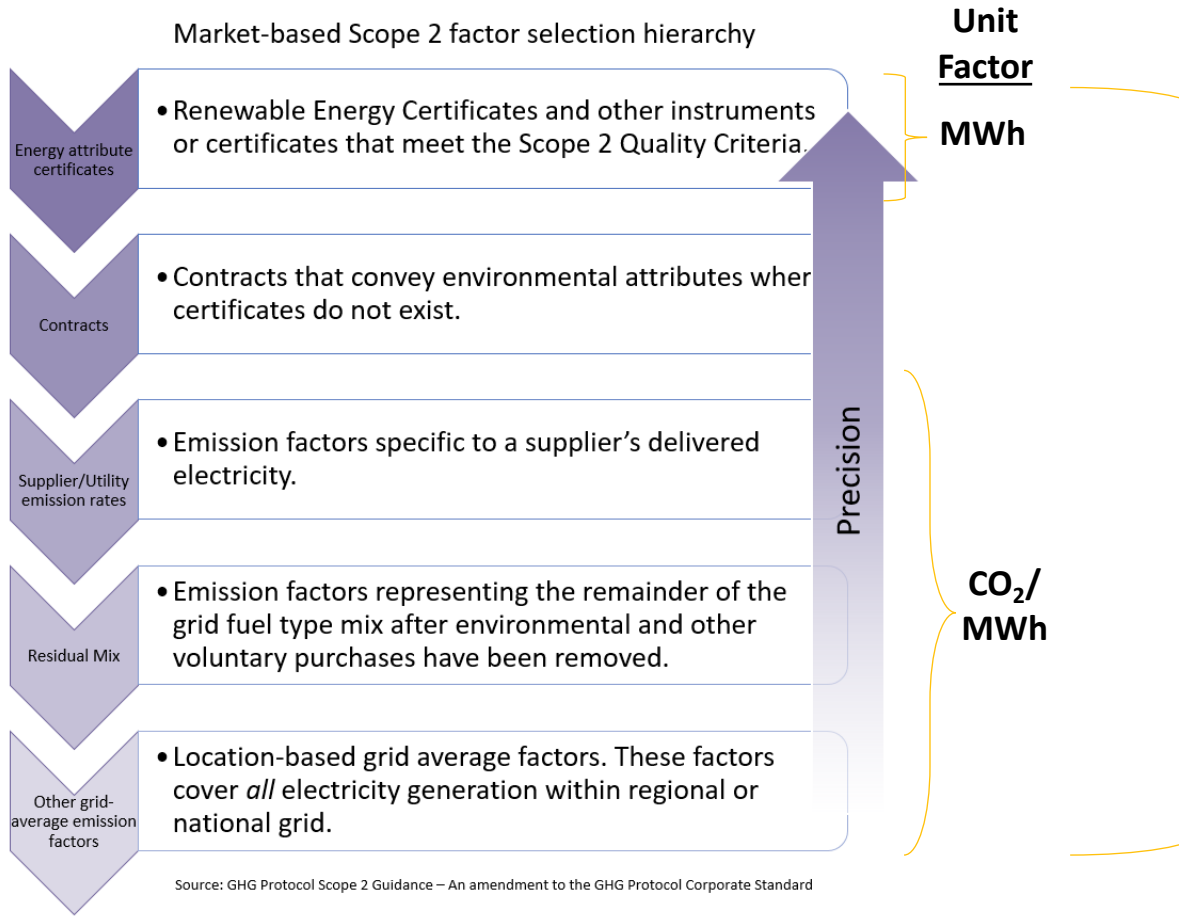
Discussion Questions

- What are the benefits of a more granular market boundary?
- What are the benefits of a more flexible market boundary?
- Since policies, regulations, and other standard setters often define market boundaries for market-based mechanisms, how critical is it that GHG Protocol address this challenge during the scope 2 revision process?

Order of Operations

IMPLICATIONS TO SCOPE 2 INVENTORIES

The formula for Scope 2 Market-Based Emissions comes from the Emission Factor Hierarchy



$$(MWh - EACs) * \text{Emission Factor} = \text{Market-based Scope 2 Emissions}$$

If a Company's Goal is to Achieve Zero Market-Based Scope 2 Emissions, then at least 1 of 2 formula components must equal zero

- $(\text{MWh} - \text{EACs}) = 0$.
 - The Reporting Company has procured a volume of EACs equal to load within the market boundary.
- Grid Emission Factor = 0.
 - The grid is zero carbon for the inventory period.

How do grid emission factor changes impact the quantity of EACs a company must procure (to reach zero market-based Scope 2 emissions)?

Example: Customer uses 100 MWh of electricity

$$(\text{MWh} - \text{EACs}) * \text{EF} = \text{Scope 2 MBM Emissions}$$

Scenario	Emission Factor (CO ₂ mt/MWh)	Scope 2 MBM Emissions <u>WITHOUT</u> Customer EAC Purchase (mt CO ₂)	EACs needed to reach zero Scope 2 MBM emissions
Year 1: Customer uses utility-supplied emission factor	0.5	50	100
Year 2: Utility emission factor rate decreases	0.3	30	
Year 3: Utility emission factor rate decreases again	0.2	20	

Example 2: Customer uses 100 MWh of electricity and purchases EACs

$$(\text{MWh} - \text{EACs}) * \text{EF} = \text{Scope 2 MBM Emissions}$$

Scenario	Scope 2 MBM Emissions (mt CO ₂) grid emission factor = 0.5 mt CO ₂ /MWh	Scope 2 MBM Emissions (mt CO ₂) grid emission factor = 0.2 mt CO ₂ /MWh
Year 1: Customer buys no EACs	50	20
Year 2: Customer buys 50 EACs	25	10
Year 3: Customer buys 90 EACs	5	2

Discussion Questions

- What are the implications of the Order of Operations (procurement strategy, inventory results, policy, etc.)?
- Is this a problem? Should this be addressed in Scope 2 revisions?
- What are possible solutions?
- What are potential outcomes of these solutions?

Additionality Criteria/Impact

**NARROWING ELIGIBLE MARKET
TRANSACTIONS TO IMPACTFUL
PROCUREMENT**

Additionality Proposals

Require that projects be additional to be eligible for scope 2.

- **Definition of Additionality:** When action results in emissions reductions beyond what would have occurred in the absence of that action.
- **The concerns:**
 - Aggregate reported corporate scope 2 emissions reductions do not correspond to changes in global emissions from electricity generation.
 - Current voluntary markets have not been proven to drive new capacity.

Quality Criteria vs. Eligibility Criteria Today

Quality Criteria:

- Minimal requirements to ensure credible use claims
- Policy neutral

Eligibility Criteria:

- Features or conditions of generators or procurement that determine eligibility for a program
- Program/policy defined

Proposed updated criteria focus areas include:

- Government subsidies
- Grid infrastructure challenges
- Low prices
- Available procurement choices
- Facility age
- Deliverability and temporal granularity

Emissions Impact Accounting

- Significant comments supporting a new requirement to report avoided emissions
- Overall goal is also to encourage investment in more impactful resources.
- Additionality tests could be applied to existing attributional or new emissions impact accounting framework

Discussion Questions

- Can RE be additional in all functioning markets?
- What would additionality or impact criteria look like?
- Where should additionality or impact criteria be expressed (GHG Protocol or programs)?
- What would be the market impact of requiring additionality? Would sufficient demand exist to influence emission reductions?
- Would an additionality test have more or less influence than a scope 2 total that measured impact for all procurement?

Next Steps

Building on Today

- Additional topics and venues?
- Meeting summary reminder
- REM Session tomorrow, 11-12:
 - Renewable Energy Accounting for Scope 2 in the Greenhouse Gas Protocol Updates Process
- Evening Reception starts tonight at 7 pm

Contact.

Peggy Kellen

DIRECTOR, POLICY

peggy.kellen@resource-solutions.org

415.568.4289



www.resource-solutions.org

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