



Brief Summary from GHG Protocol Workshop on Accounting for Green Power Purchases

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WORLD
RESOURCES
INSTITUTE



World Business Council for
Sustainable Development

Outline of Summary

Overall Themes

Session I: VRE as Emission Factors

**Session II: VRE as avoided
emissions**

**Session III: VRE accounting in
emissions constrained/claimed
circumstances**

**Current timeline for Power
Accounting Guidelines work**

Overall Themes

State of accounting in the green power market

- Accounting hang-ups are stalling important RE investments and confusing corporate GHG mitigation strategies
- Concern that complex accounting rules could kill the RE market prematurely
- Desire to restore confidence in reported scope 2 numbers and in RE purchases
- Frustration for companies trying to understand different corporate reporting guidance in different programs, plus different energy tracking instruments in different regulatory environments
- Hazy boundaries and use of green power between compliance and voluntary markets



Overall Themes

Green Power Purchase Goals

- Variety of goals and expectations companies trying to meet with green power purchases, including:
 - “Greening” scope 2 electricity emissions in the reporting year
 - Contributing to de-carbonizing the electricity grid
 - Spurring new RE investments
 - Contributing to the growth of the RE market
 - Reducing emissions from electricity generation on the grid
- Concerns that purchasing RECs does not fulfill all of these goals
 - Recognition that goals and impact occur on a spectrum, and also over differing time scales
 - Ex: buying RECs to reduce scope 2 may incrementally contribute to growth of the RE market in the long-term, but not serve to spur new immediate RE development
 - Recognition that financing for new RE projects come from a variety of sources, challenging to declare a specific market impact of your purchase
 - Some green power purchase goals more conceptual, intangible
 - Described with language like “making a difference,” “having an impact,” or “transformational”



Overall Themes

Communication

- Stakeholders reading company reports may not understand the difference between scope 1 and 2, and what “reductions” in an inventory mean
 - Need to define “reductions” more clearly for indirect categories like scope 2 and 3
- Reputational risks in miscommunicating the purpose and impact of RE purchases – the accounting should help define this
- Stakeholders may be expecting green power purchases to be “making a difference” or changing the grid, making a re-slicing approach potentially difficult to communicate (risk of “greenwashing” perceptions)
- What other information do companies need to report for stakeholders to understand the nature of their green power purchases?
- Our guidance should coordinate with, or more intentionally inform, Federal Trade Commission guidelines on green claims



Overall Themes

Vision for the guidelines

- Clear, coherent system for energy attribute accounting along the energy value chain
- Should be useful for all relevant actors in the sector, including companies, green power product vendors, certifiers, reporting programs, etc.
 - Should provide basis for other organizations' programmatic guidance and policy specifications
- Map out company goals and possible instruments to achieve them
 - Something to link the eligibility of different types of projects or instruments to associated corporate accounting treatment to communication claims
- Workshopping individual scenarios would be helpful in the development process
 - More roundtables
 - Process itself contributes to use of common terminology
- Design guidance around company goals and real-world examples



Overall Themes

Challenges for the guidelines

– Scope

- Framed in large sense, in terms of energy tracking and accounting, or limited to sorting out RECs in the US?
- Will other power issues (like CHP accounting) be addressed?
- Will life cycle accounting be included?
- Why are offset projects included in the discussion?
 - Wary of duplicating efforts – if existing offset quality criteria contains all the elements currently being discussed or recommended, what is the value added?

– International dimension

- Are electricity grids and markets around the world similar enough that more detailed accounting guidance is possible?
- What issues are region-specific? Would they impact the accounting, or only represent a different set of terms/regulations for the same basic concepts?

– Regulatory dimension

- How can the guidelines work with existing RGGI/WCI practices for VRE purchases?
- How can the guidelines navigate state RPS-inspired REC definitions?



Session I: VRE as Emission Factors

Emission Factor Approach

- Treats green power purchases as a low or zero tons GHG/MWh – functions as an alternative emission factor (rather than grid average default) for calculating scope 2
- Deemed a generally appropriate approach if the goal is strictly GHG accounting for scope 2
- Reflects electricity use as analogous to fuel choices—you choose the generation “fuel” with which your consumption is associated
 - Not all RE has zero emissions associated with it: need to make this clear in accounting process
- Precedent in existing practices in The Climate Registry and Green-e, among others
- Seen as more straight-forward accounting concept than avoided emissions approach
 - Based on tracking emission attributes rather than the reductions that may or may not be caused by the project – precedent for emission attribute tracking for other regulatory purposes
 - Does not require detailed information about location, marginal emission rates of the sub-region, etc.



Session I: VRE as Emission Factors

Additionality: The re-slicing approach

- Summary: no additionality screening applied to renewable energy sources producing voluntary RECs. Any RE source qualifies, serving to “re-slice” the ownership of existng emissions on the grid so as to allow for claiming of a choice emissions rate or profile.
- Advantage
 - Conceptually straight-forward
 - Easy to implement
 - Avoids all the contention and confusion around additionality tests, including:
 - Who sets requirements
 - Project-specific vs. performance standards
 - Evaluations of relative stringency or quality of the tests
- Disadvantage/Concerns
 - May not fulfill all goals and expectations of companies
 - No net impact in short-term, just changing responsibility/ownership
 - Subject to reputational risks through communication (“greenwashing” accusations from stakeholders)
 - May remove incentive for companies to make more significant, “world changing” RE investments if reporting application in scope 2 is the same
 - Example: RECs from a “world-changing” new RE investment and RECs from an older installation – both would theoretically give the right to a zero-emissions MWhs
 - » Is a REC designed to show you have “changed the world,” or to show that you have “zero” emissions associated with your electricity consumption?



Additionality: The Strong Financial Additionality Approach

- Summary: only those RE installations meeting tests of financial additionality qualify to produce voluntary RECs, so that purchasers are assured they are driving RE development that would not have happened without the REC funding
- Generally viewed with hesitation, given:
 - Implies project-specific analysis, which is time and resource-consuming
 - Drawing baselines can be subjective, easy to “game the system”
 - What authorities would determine the criteria, or approve projects?
 - Overall seen as a disincentive to the market
 - Though some group support for how financial additionality screening would “reward” companies whose financial contributions/investments in RE projects are decisive to the project going through
- Conceptual confusion
 - Additionality seen as linked to offset or project-level accounting, not necessarily for treatment of green products as an “alternative emission factor”
 - No reductions are quantified with the emission factor approach, as they would be with offsets or an avoided emissions approach
 - Distinguish ownership and additionality
 - Unique *ownership* of energy attributes relates to double selling and double counting
 - *Additionality* of a project relates to a project being beyond or different from “business as usual,” a condition ascertained by isolating the reason for its existence – either through drawing project-specific baselines or through proxy screening tests
- Need examples of what strong financial additionality tests might look like or include
 - Project financing is generally from multiple sources; hard to identify the “decisive reason” for a project going through



Session I: VRE as Emission Factors

Additionality: Partial tests?

– Rationale

- Re-slicing might be feasible and defensible on pure accounting grounds, but doesn't meet consumer expectations (i.e., driving the market)
- Simple eligibility tests could meet consumer demand without getting into complexity of financial, project-specific evaluations
- Identifying a sub-set of qualifying renewable projects through criteria tests serves to restrict supply of eligible voluntary RECs, providing incentive for more new projects to meet voluntary demand
 - “Ineligible” projects are just part of the grid average rather than energy attribute commodity

– Examples

- Could generally consist of:
 - Vintage
 - Common practice/technology
 - Regulatory
- Precedent with Green-e and EPA Climate Leaders criteria
 - What else is needed or sought ?
- Purchasing RECS from RPS markets rather than voluntary?
 - Depending on stringency of the RPS market, does this have “built in” scarcity and additionality to satisfy consumer expectations?
 - See *VillageGreen* strategy



Additionality: Partial tests? (con't)

– Concerns

- Clarity on purpose and objective of tests
 - Avoid designing tests simply to support choice technologies
 - Clarify that purpose of additionality here is not essential for “accounting” but for consumer expectations and market impact
- Dynamic regulatory and market conditions
 - Do the criteria change over time as regulatory and market conditions shift?
 - » i.e., what’s “additional” this year becomes commonplace (and ineligible?) in 5 or 10 years? Do RECs stop being certified from these installations?
 - » Should the identified year/threshold of vintage change?
 - If so, do changing criteria actually hurt the market by creating uncertainty?
- Forum
 - Are the WRI guidelines the best forum to provide recommendations on the types of partial tests?
 - » Designing criteria based on assessment of the market, incentives, etc. is beyond GHG Protocol accounting domain
 - » GHG Protocol not a green power certifier, vendor or reporting program administrator



Grid average adjustment

- Questions on role and relevance
 - Agreed to its role for pure accounting purposes, but questions on its current importance
 - Small scale of potential inaccuracies not generally seen as problematic for REC purchasers or other consumers on the grid
 - If other purpose is to inspire other consumers faced with higher EF to take action, adjusted EF would need to be significantly higher –currently, estimated adjustments not predicted to yield this
 - Not great demand from consumers for adjusted numbers
 - Only hear “double counting” concerns from NGOs
 - What is the objective of making these adjustments?
 - What is the value of it at this time, given uncertainty of the market/future growth?
 - Mixed views on setting a threshold after which point to examine it



Grid average adjustment (con't)

- Expectations about precision and accuracy
 - Since scope 2 reflects indirect emissions, inherently consisting of “double counting” generators’ scope 1, some felt it categorically merits a more flexible treatment
 - eGRID numbers are inherently estimates
 - Adjustment implies an expectation for a level of precision that isn’t there to begin with
 - Distinction between burden of accuracy of individual inventory vs. accuracy of system-wide accounting
 - If system for electricity accounting is based on broad estimates, why burden companies with stringent requirements on system adjustment for their green power purchases?
 - System adjustment outside of company’s direct control



Grid average adjustment (con't)

- Mixed opinions on technical challenges and feasibility
 - More and different kinds of data than what eGRID currently captures clearly needed
 - Already significant time delay in published eGRID data – when would adjustment be available?
 - Alternative suggestion that it is relatively straight-forward to integrate existing information on volumes of REC purchases (from RE tracking systems) with appropriate eGRID sub-region emission-output data to give estimated “adjustment” figure
 - Combine data from multiple systems: RE tracking systems, Green-e, NREL, and EIA?
 - Emphasis that documented and published quantitative exploration here, by WRI or others, would help substantiate the relative importance and feasibility of adjustment



Alternatives to grid average adjustment

- Avoid adjustment of eGRID for now, but:
 - Recommend corporate GHG reports acknowledging presence of double counting between RECs and the grid average EF, and that it is currently small
 - Determine a threshold or time when it will be examined in the future
 - Precedent with The Climate Registry's *Climate Registered* program
- Round-up or make more “conservative” eGRID numbers to reflect that green power purchases likely being claimed in many sub-regions
- Explore the use of US regional RE tracking systems as source of alternative emission factors
 - Already tracking information on RECs in transparent and serialized systems
 - Two systems are all-generation tracking, designed to produce fuel mixes for utility disclosure purposes
 - A grid emissions average for the region easy to calculate from fuel mix information
 - Precedent of calculating residual mixes (subtracting voluntary RECs or other claimed green power products), which function as an adjustment figure



Origin and rationale

- The avoided emissions calculation follows from an understanding that RECs in the US contain this secondary or derived attribute
 - Question on role of WRI guidance in determining or changing definitions of RECs
- Interpreted to function in a corporate inventory like an offset, but:
 - Not certified as an offset
 - Full additionality tests not typically required
 - Limited application to just scope 2
- Aims to reflect the emissions impact of a given installation
 - Serves as means of distinguishing the impact of renewable energy projects in GHG-intensive regions vs. cleaner regions
 - Potentially more value for RE in GHG-intensive power regions



Session II: VRE as avoided emissions

Conceptual difference between this application of RECs and offsets still murky

- Role of additionality
 - Would more comprehensive additionality screening make this approach more acceptable?
 - Need to demonstrate causal link between purchase and avoided emissions
- Mixing accounting approaches
 - Need to elaborate how historical, corporate inventory accounting intersects with project-level accounting
 - Current best practice recommended in *Corporate Standard* for projects with impacts outside the corporate boundary is to optionally do avoided emission calculation based on rigorous project-level methodology, and report separately as an informational item

Implementation questions

- Concerns about access to data – if calculation left to consumers to do, requires finding marginal EFs from relevant region, etc.
- Methodology for calculating avoided emissions
 - Existing best practices relating to marginal emission rates regarded as generally fair approximation, though acknowledgement that more sophisticated dispatch modeling carries greater accuracy
- Approach not supportable in regions with a capped power sector
 - Given expansion of regional cap and trade schemes, does emphasizing this approach make sense?



Session III: VRE accounting in emissions constrained/claimed circumstances

On-site energy

- General agreement on practice of using grid average for energy consumed onsite where RECs sold off (i.e., use grid average for the 'null power' being consumed)
- Net metering practices variable
 - In situation where some energy consumed on site, some sent back to grid, and some grid energy purchased, how does power supplier or utility disclose this information? For corporate accounting, should these numbers be “netted” or treated separately?
 - ie, Can you simply subtract purchased energy from energy sent back?
- Challenging ownership situations
 - Installations like on-site solar often leased by the building owner, or a 3rd party
 - Consumer of the on-site electricity can be one of multiple tenants in a leased building
 - Contracts can be clarified in terms of ownership of the electricity and the associated emission rates.



Session III: VRE accounting in emissions constrained/claimed circumstances

On-site energy (con't)

- Grid average adjustment played out here for situation where energy sent back to the grid and the REC is sold off
 - Same mixed views from Session I: grid average adjustment desirable or feasible for such typically small on-site installations?
- Concerns about appropriate claims in a capped power environment
 - In a capped system, any individual's efficiency, conservation, or on-site RE effort would all serve to reduce grid demand and theoretically "free up" allowances
 - No net or system-wide reductions taking place
 - Clarify types of claims and communication strategy



Session III: VRE accounting in emissions constrained/claimed circumstances

VRE in capped power sectors

- Accounting of VRE
 - Under emission factor approach, allowance retirement **not** technically necessary to ascribe ownership of zero-emissions electricity, but important to meet consumer expectations, preserve secondary REC attribute/benefit (reducing net emissions) , and restrict market supply
 - Important to buyers of VRE that they are not just subsidizing compliance of fossil-fuel generators
 - Level of the cap and allowance distribution method discussed as important contributors to relative cost and market impact
- Additionality
 - Does allowance retirement with VRE serve as an assurance of additionality?
 - Any RE project in a capped power sector can be seen as serving a regulatory purpose (i.e., not meeting regulatory additionality tests), and might not pass other tests on their own – but, paired with an allowance retirement, is additionality assured?
- Role of guidance
 - Should WRI guidelines review, incorporate or add to existing practices or recommendations in place in RGGI or WCI?



Session III: VRE accounting in emissions constrained/claimed circumstances

RE offsets

- Multiple ownership and accounting issues
 - Single project produces :
 - Emission rate
 - Either owned separately or incorporated into grid average
 - If owned separately, potential for double counting with grid average if not adjusted
 - Offset
 - Likely applied in purchaser's corporate inventory to represent net emission reduction or meet reduction target
 - » Or, purchaser could be utility sourcing offsets on behalf of green tariff customers who report corresponding emission reductions in their scope 2
 - Fundamentally, can RE offsets fulfill basic enforceability issues?
 - May be double counting between historical scope 1 emissions from fossil fuel plants and the reductions embodied in an offset
 - Some sense that complementary objectives of CDM (including sustainable environmental and economic development) makes accounting questions less problematic



Session III: VRE accounting in emissions constrained/claimed circumstances

RE offsets (con't)

- What to do about the emission rates?
 - Agreed that issue of emission rates from RE projects receiving offset credits had not been addressed thoroughly to date
 - Questions about whether developing countries generally have the energy tracking infrastructure that would permit tracking and solve ownership issues
 - Need to integrate CDM and emerging economies as part of dialogue on goals of RE investments and ownership specifications
 - Hesitation about selling emission attributes (REC-type certificates) separately if offset already credited
 - Should keep as “collective benefit” in grid average, or removed from grid average
 - What to do if installation was not contributing to grid average, e.g., for a project designed for on-site consumption, or not incorporated into national statistics (example in Mexico)



Current timeline for Power Accounting Guidelines work

SCOPING

Summer/Fall 2010

- Background research on existing practices
- Questionnaire distribution to voluntary GHG reporting programs and other experts

WORKSHOPS

(London and DC)
Dec 2010/Jan 2011

- Present to stakeholders initial GHG Protocol framing, issues and options related to green power accounting

ISSUE-SPECIFIC CONSULTATIONS

Feb/March 2011

- Follow-up research and stakeholder consultations about green power accounting in specific geographic and policy contexts

FIRST DRAFT

(green power component)
April 2011

- Provide initial guidelines on green power accounting
- Garner stakeholder feedback
- Identify additional power accounting issues (ex: CHP)

Next Steps

ISSUE-SPECIFIC CONSULTATIONS *Feb/March 2011*

- Follow-up research and stakeholder consultations about green power accounting in specific geographic and policy contexts



- Distribute for stakeholder feedback a comprehensive summary document on UK and US workshops, identifying areas of initial consensus and concerns specific to national/regional policies
- Additional workshops in other geographical areas, as needed or available
- Webinar discussion on specific issues such as :
 - - *Technical barriers and alternatives to grid-adjustment of emission factors*
 - *Defining where additionality is relevant for green power products*
 - *Status of existing energy certificate tracking systems*
 - *Barriers to consistent utility disclosure practices in Europe and US*