



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

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World Business Council for  
Sustainable Development

# Overall Themes

- We need to begin with a vision of the electricity accounting system we want
  - Technical implementation can follow from that, but fretting over details shouldn't prematurely hinder setting a meaningful vision
  - Also need for perspective: time and effort could be misspent on collecting very detailed information to little benefit
- GHG accounting rules should give the “right incentives” to channel corporate purchasing power towards a low carbon / high renewables future
  - Currently, the lack of consistency and clarity in the GHG accounting practices are hindering companies' energy investments and other carbon reduction strategies
- General sense that energy-related instruments should not be used for purposes they were not intended for



# Overall Themes

- GHG reporting should be a means to convey the truth about GHG emissions
  - Should not lose sight of this while creating technical and system specifications ... potential to become convoluted
- The electricity grid presents the challenge of “undifferentiated electrons”: to date, this has been addressed through using a grid average emission factor. But electricity could be viewed as analogous to a fuel purchase choice (as would be recorded in scope 1), and scope 2 could be calculated to reflect that
  - Requires a system that links generator information to final consumer ; currently information is not consistently parsed out this way
- Reporting structure currently recommended by Defra – “gross” and “net”—offers useful and transparent way to record impact
- In addition to reporting gross scope 2 emissions, important to emphasize actual energy use activity data over time. This number reveals overall efficiency and conservation—consequences of internal/operational choices—whereas emission factors can fluctuate due to no choice of the company



# Overall Themes

- Clarification regarding purpose and application of existing energy instruments in both the UK, EU and US would help untangle potential accounting questions.
- For brief current reference:
  - Renewable Obligation Certificate:
    - Subsidy mechanism to support renewable energy
    - Separate from GOs/REGOs used for disclosure tracking
    - For comparison, RECs in the US can be used both for verifying origin and for analogous supplier requirements (RPS)– but no explicit subsidy attached
  - Levy Exemption Certificate:
    - Part of the evidence required for suppliers to claim the CCL Exemption on non-domestic supply.
    - Certificates awarded to renewable energy (among other exceptions)
- A given RE generator in the UK could be awarded:
  - A GO or REGO (for tracking/disclosure)
  - A ROC (to submit to supplier for obligation)
  - A LEC (to submit to Revenue & Customs to receive CCL exemption)



# Session I: Accounting for emission rates



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## *EXPERIENCE*

- Current situation confusing
  - Not clear whether various energy-related instruments (GOs, ROCs, LECs, RECs) contain ownership or right to the emission attributes of a given installation – and whether those attributes can be used in calculating scope 2 emission in the GHG inventory
  - In general, Guarantees of Origin (GOs) identified as the instrument that has been, and could continue to be, the means of demonstrating and claiming RE attributes—but would require means to reflect this in the context of other grid consumers
  - Not clear what additionality screening mechanisms exist to differentiate existing renewable energy resources from those which are new/above/beyond, if all installations have the potential to produce the same instruments
- Expectations about the impact of purchasing “green energy” vary
  - “Greening” electricity emissions in the reporting year
  - Contributing to de-carbonizing the electricity grid
  - Spurring new RE investments
  - Going above/beyond minimum policy requirements



# Session I: Accounting for emission rates

## ADDITIONALITY

- **Additionality: No consensus**
  - Questions on its conceptual relevance to accounting for emission rates
  - Mixed views on whether more important to consider in the short or long-term
  - Concern that “re-slicing” existing mission attributes would not send meaningful market signal
- **Closely related themes of fairness and ownership**
  - The existence of ROCs and other support schemes mean that all ratepayers effectively subsidise green power incentives—so why should only a few pay an incremental (even “negligible”) amount extra and get to claim the benefit?
  - One additionality screening offered was that renewable energy that benefited from subsidies, feed-in tariffs or was required as part of supplier minimum portfolio standards would *not* be eligible for voluntary purchases and claims in a GHG inventory
    - Counter concern that not taking advantage of existing support schemes greatly reduced the financial likelihood of RE investment, potentially leading overall to fewer companies investing in RE – not the overall desired effect



# Session I: Accounting for emission rates

## *ADDITIONALITY (con't)*

- While some deemed additionality tests which analyzed the “decisive” reason for given projects to be too subjective or cumbersome to incorporate into green power purchasing requirements, some participants advocated for simple tests to ensure purchases were beyond minimum regulated requirements. For instance:
  - In case of quota obligations, retirement of support certificates instead of submitting them to suppliers for compliance with the obligation
  - In case of feed-in systems, purchase from new plants not receiving feed-in
  - New beyond a certain time period frame



# Session I: Accounting for emission rates

## *GRID AVERAGE*

- Agreed that moving towards unique ownership of “green power” by companies (should the right instruments to convey this be identified and made consistent) would require an adjustment to grid averages, producing a “residual” factor at all other grid consumers then use—OR, a different system altogether for calculating the emission factors used in scope 2 calculations
  - Noted that current system is designed around shared physical footprint, without reflecting supplier contracts or other arrangements. National grid average emission factors generally capture production information: generally not designed to incorporate other market transaction information
  - Ease of grid adjustment dependent in part of size of country, availability of data
  - Possible political challenge in ensuring that green energy purchases from one country are factored out of that country’s grid average



# Session I: Accounting for emission rates

## *ALTERNATIVES TO GRID AVERAGE ADJUSTMENT*

- General support for supplier-based electricity labels and emission factors, based on a GO-based tracking system
- Group felt supplier EFs could be relatively easily calculated and provided on annual basis, given existing fuel mix disclosure requirements
  - Also noted that FMD not practiced consistently across different EU countries, but harmonized certificate and tracking mechanism pursued by EPED, AIB, RECs International
  - Noted that GO's are not always issued for all electricity— often, just RE-GOs are common and rest of energy is given statistical residual mix
- Other electricity labeling schemes and alternatives were identified and elaborated in Session III



# Session III: Accounting for green tariffs

## *OTHER ACCOUNTING CONCERNS*

- Some renewables not zero emissions, eg biomass: how is this currently reflected in calculating grid average? In GO certificates? How should these rates be calculated?
- Ultimately, need for life cycle assessment of all fuels and technologies providing electricity; agreed that this is extremely challenging in the short-term, but mixed views on its feasibility in the long-term



# Session I: Accounting for emission rates

## *ON-SITE GENERATION*

- Accounting of emission rates from on-site generation not discussed in detail
- Inconsistencies in how suppliers characterize transaction: sometimes show net of company purchases from/sales to the grid
- Current Defra recommendations permit “netting out” of electricity production sent back to the grid from any energy purchased from the grid
  - Potential for double counting of emission rates
  - Does not address complexities of on-site CHP accounting



# Session II: Accounting for avoided emissions

# Session II: Accounting for avoided emissions

- Generally deemed not a relevant an approach for estimating impact of domestic energy purchases, given EU ETS
  - CHP issues or energy efficiency certificates may use project-level methodology, possibly further areas of inquiry here
- General recommendation to defer to existing offset methodology for how to treat emission rates and ownership in the case of RE offsets in other countries (i.e., CDM), but not seen as significant concern
- Fundamental concern expression regarding “fictitious reductions” in hypothetical baseline, which is inherent to offsets
- Not much precedent for allowance retirement or VRE set-aside as mitigation strategy in Europe
  - Initial distribution method (auction, sales) deemed more significant area of discussion



# Session III: Accounting for green tariffs

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## *EXPERIENCE*

- Strong familiarity with green tariffs (especially in the UK) and with related accounting principles, though tariff arrangements more relevant to residential customers and to SMEs which have fewer resources
- Many companies do not buy green tariffs, citing ambiguity around what they consist of and how to report. Some expressed preference for investing in green power projects that could be directly investigated
- General view that reliance on green tariffs makes a company too dependent on electricity suppliers to meet emissions reduction targets: difficult to plan around, particularly with changes to reporting practices



# Session III: Accounting for green tariffs

## *EXPERIENCE (con't)*

- UK situation confusing, but some companies purchasing tariffs elsewhere – less expensive, or clearer rules
- Many concerns with changes to reporting guidance and increasing complexity
- Changing landscape of tariff policies and reporting works against long-term investment in RE
- Need to train energy managers to ask the right questions of green energy suppliers
- Need a clear chain of custody on how the premium would be spent
- Shouldn't be “future-oriented,” to install later: need verifiable commodity now



# Session III: Accounting for green tariffs

## *ACCOUNTING CONCERNS*

- Same core accounting issues from Session I with emission rates
  - Double counting
    - What emissions rate or factor can purchasers of the tariff use in their GHG inventory? Either grid average should be adjusted to reflect these claims, or alternative tracking system at supplier-level to allocate those emission attributes
  - Additionality
    - Is program re-allocating its existing fuel mix to customers, is it acquiring more certificates (GOs, RECs)? How can tariff purchases be ensured to be “above and beyond” existing requirements when such extensive (and potentially confusing/overlapping) support schemes?



# Session III: Accounting for green tariffs

## *OFFSETS in TARIFF PROGRAMS*

- Offsets seen with some skepticism – should have the transparency for companies to evaluate the offset rather than rely on supplier to select
- Use of offsets as a mitigation instrument related to electricity possibly confusing: offsetting seen as is a different function than “greening” company’s electricity consumption
- Generally expressed belief that it is more important to ‘sort your own house out’ rather than pay for emission reductions elsewhere



# Session III: Accounting for green tariffs

## *SUPPLIER TRANSPARENCY*

- Agreed that suppliers must provide clarity and transparency on how given tariff program is structured, with more information needed on offsets and investments
  - Particularly relevant for conducting verification or assurance on consumer GHG inventories
  - Some suppliers publish CO2 savings on bills, some give emission rate or fuel mix – consistent format would be best
- Good tracking (EPED), and transparent registry system emphasized as vital. Would be even more useful if a given energy product or certificate could record other sustainability issues (biodiversity, nuclear waste, etc.)



# Session III: Accounting for green tariffs

## *TARIFF CATEGORIES*

- Concept note seen to overall correctly identify main categories of tariff programs , but acknowledged difficulty in distinguishing purpose and nature of particular programs
- Noted that the distinction between of categories ii) and iii) not obvious: both options ultimately treated the same in terms of accounting. Suggested clarification that category ii) includes sourcing both the underlying electricity contract plus the RE-GO, whereas iii) only uses the RE-GO and the electricity can come from other contracts



# Session III: Accounting for green tariffs

## *OTHER POSSIBLE LABELING SYSTEMS*

- Building on session I discussion, group identified several other supplier labeling options as a means to both enhance transparency, expand consumer choice, and avoid double counting of energy attributes between end-consumers.
- Recommendations offered based on:
  - Guarantees of Origin (GOs)
  - European Platform for Electricity Disclosure ([EPED](#))
  - Recommendations of [E-Track](#)
- a) GO-backed low carbon/renewables + residual mix (statistical information) to characterize rest of supply
  - Already exists in several EU countries
- b) Enforcing supplier FMD requirements, where all energy (both renewable and fossil) is tracked by GOs
- c) A-G electricity labeling system
  - Consumer chooses particular supplier fuel mix label, ranked from low-carbon (A) to high-carbon (G), and calculate scope 2 based emission factor of the label rather than grid average

# Other References and Websites

- Current DEFRA corporate reporting guidance  
<http://www.defra.gov.uk/environment/business/reporting/pdf/ghg-guidance.pdf>
- Energy related instruments issued and managed by Ofgem  
<http://www.ofgem.gov.uk/SUSTAINABILITY/ENVIRONMENT/Pages/Environment.aspx>
- Green energy supply certification scheme  
<http://greenenergyscheme.org/>
  
- E-Track Project  
<http://e-track-project.org>
- European Platform for Electricity Disclosure  
[http://www.eped.eu/portal/page/portal/EPED\\_HOME](http://www.eped.eu/portal/page/portal/EPED_HOME)
- Association of Issuing Bodies  
<http://www.aib-net.org/>
- RECs International  
<http://recs.org/>

# 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*