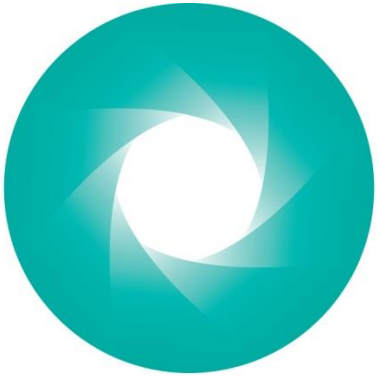

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TWG discussion of Scope 2 Guidance proposal questions

December 3rd and 4th, 2013

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Outline

- Review outstanding questions from Proposal
- Discuss comments, feedback
- Next steps

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Outstanding questions

TWG follow up questions	TWG responses
Overall reporting approach ✓ What are best practices for entities purchasing certificates on behalf of others (or energy use) within its supply chain?	
Data Hierarchy ✓ Is supplier-specific information a relevant data source in regulated markets? ✓ Is there current practice of customer-calculated GHG emission rates based on fuel mix disclosure is appropriate (risk of double counting)? Should the Guidance explicitly address this? ✓ Should this Guidance give specific, extensive list of emission factors under each category, or only a few categorical examples?	
Quality Criteria ✓ How specifically to define "same market" boundary? ✓ How specifically to define vintage requirement? ✓ Require conveying direct emission rate? (GOs do not state that they convey this claim) ✓ How should the residual mix criterion be phrased to both emphasize its importance but not overly burden corporate reporters?	
"Instrument feature" disclosure ✓ Would name change to "Product Generation Features and Market Context" be more appropriate? ✓ What format to use for instrument/generation feature disclosure? ✓ Should require disclosure on regulatory surplus for certificates/contracts?	
Outline and Appendices ✓ How much background on tracking systems needed? Where is this best located in document?	

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Overall reporting approach

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What are best GHG accounting practices for entities purchasing certificates on behalf of others (or energy use) within its supply chain?

T&D example: A company wants to purchase renewable energy to cover its T&D losses (recorded in scope 3) following a market-based method. This can be recorded as a purchase, and emission factor, for scope 3.

- *If an entity purchases all RE and has 0 emissions in scope 2 according to market-based method, then T&D losses should = zero because energy purchased has no emissions associated with lost energy in the T&D process. But can claim that RE has been purchased for entire supply chain?*

Product (cradle to gate) example: A product manufacturer wants to purchase renewable energy to cover all energy consumption occurring during the product's upstream phases including extraction, processing, etc.

- *Scope 2 methods and product LCA practices should be consistent, but product level inventories may serve slightly different purposes than a corporate inventory. How should the Scope 2 Guidance address this?*

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Data hierarchy

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Emission Factor Data Type
Electricity tracking certificates (unbundled or bundled with electricity) or equivalent instruments
Contracts such as power purchase agreements (PPAs)
Supplier/Utility emission rates
Residual mix (sub-national or national)
Advanced grid studies on real-time information
Average emission factors representing all electricity production occurring in a defined grid distribution region that approximates a geographically-precise energy consumption area. To better approximate a consumption area, emissions factors should reflect energy imports/exports across the boundary.
Average emission factors representing all electricity production information from geographic boundaries that are not necessarily related to dispatch region, such as state or national borders. No adjustment for imports or exports, not representative of energy consumption area.

Market- based scope 2 figure

Location-based scope 2 figure

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- ✓ Is supplier-specific information a relevant data source in regulated markets?
- ✓ Is there current practice of customer-calculated GHG emission rates based on fuel mix disclosure is appropriate (risk of double counting)? Should the Guidance explicitly address this?
- ✓ Should this Guidance give specific, extensive list of emission factors under each category, or only a few categorical examples?

POWER CONTENT LABEL

ENERGY RESOURCES (Column A)	2010 POWER MIX (Column B)	2010 CA POWER MIX** (Column C)
Eligible Renewable	**13%**	**14%**
-- Biomass & waste	2%	2%
-- Geothermal	7%	5%
-- Small hydroelectric	1%	2%
-- Solar	1%	0%
-- Wind	2%	5%
Coal	9%	7%
Large Hydroelectric	9%	11%
Natural Gas	37%	42%
Nuclear	19%	14%
Other	0%	0%
Unspecified sources of power*	**13%**	**12%**
TOTAL	**100%**	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.

For specific information about this electricity product, contact **Company Name**. For general information about the Power Content Label, contact the California Energy Commission at 1-800-555-7794 or www.energy.ca.gov/consumer.

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Quality Criteria

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- ✓ How specifically to define "same market" boundary?
  - ✓ **Objective**: ensure that an instrument is used as intended by issuing bodies and the market, and support fulfillment of other Quality Criteria (no double counting, residual mix, etc.)

- ✓ How specifically to define vintage requirement?
  - ✓ **Objective**: suggest reasonable timeframe that approximates period when electricity consumption occurred

- ✓ Require conveying direct emission rate? (GOs do not state that they convey this claim)
  - ✓ **Objective**: support the fulfillment of Quality Criteria relating to no double counting and clarity on purpose of instrument, while recognizing the differences in instruments' legal language and current status

- ✓ How should the residual mix criterion be phrased to both emphasize its importance but not overly burden corporate reporters?
  - ✓ **Objective:** emphasize importance of residual mix to avoid double counting and increase credibility, while recognizing present constraints in data availability

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"Same market" boundary

Current proposal language:

The contractual instrument must be sourced from within the same electricity market as the reporting facility to which it is applied. This market boundary includes areas where the laws and regulatory framework governing the electricity sector are consistent between the areas of production and consumption. It may also require a consistent tracking system and ability to calculate a residual mix. Some programs may restrict the use boundary further, e.g. to an interconnected electricity region.

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"Same market" boundary approaches advocated by TWG

	Defer to issuing bodies/market authorities	Common or compatible data exchange (residual mix)	Physical interconnection
Rationale	Avoids GHGP having to establish market rules	Any two areas can join a market as long as their production information can be exchanged to calculate a residual mix and ensure no double counting.	We do not have a globally liquid market for certificates, because we do not have a single electricity market. Boundary for usage should be "reasonable for an RE usage claim."
Challenge	Many/most certificates or the issuing bodies do not formally specify the boundaries of usage. Demand for clarity and consistency here.	Inconsistent to make requirements for data exchange and the capacity to calculate a residual mix, when residual mix not available consistently in established markets (US, Australia)	Definition of a tradable instrument already necessitates a separation from "physical" flows, so any further restrictions would simply be policy/program choices rather than "inherent accounting" restrictions

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"Same market" boundary

Current proposal language:

The contractual instrument must be sourced from within the same electricity market as the reporting facility to which it is applied. This market boundary includes areas where the laws and regulatory framework governing the electricity sector are consistent between the areas of production and consumption. It may also require a consistent tracking system and ability to calculate a residual mix. Some programs may restrict the use boundary further, e.g. to an interconnected electricity region.

TWG suggested language: *The contractual instrument must be sourced from a generating facility located within the same electricity market as the reporting facility to which it is applied. The 'same electricity market' is defined by a consistent (but not necessarily identical) legal and regulatory framework governing the geographic regions of electricity production and consumption. For example, the EU and the US, despite individual countries or states having individual laws, operate under the same overarching union or federal laws and regulations, and therefore qualify as the same electricity market for use of contractual instruments. Some programs (but not this accounting guidance) may restrict the use boundary further, e.g. to an interconnected electricity region."*

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Vintage requirement

- **Current proposal language**
- *The contractual instrument must be applied to the inventory year in which it was generated (i.e., energy and instruments produced in calendar year 2013 should be applied to a 2013 calendar year GHG inventory).*

- US practices: The contractual instrument must be applied within reasonable proximity to the inventory year in which it was generated. For example, in the US Green-e Energy requires that energy and instruments were generated in the calendar year in which the instrument is applied, the first three months of the following calendar year, or the last six months of the prior calendar year.

- Europe practices: GO has a life span of 12 months from month of issuance (produced in Dec 2013 can be cancelled in a national registry up until Dec 2014). Should also add flexibility by saying GO needs to be retired matching electricity consumed within 12 months from production of electricity (not the issuance of the GO)

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Require conveying direct emission rate

Current proposal language:

The contractual instrument must convey with it the direct GHG emission rate attribute claims associated with the quantity of electricity produced.

TWG suggested options

1. Keep as requirement; essential for clarity on use
   ***Challenges**: GO's and other instruments may be excluded*

2. Change to **"can be assumed, derived or deduced for renewable resources"**
   ***Challenges**: open to interpretation of user, confusing in markets with multiple instruments from same MWh*

3. Change to **"common practice and historical treatment of the instrument is sufficient demonstration of this criterion"**
   ***Challenges**: open to interpretation of user, confusing in markets with multiple instruments from same MWh, and historical treatment may not be agreed upon even within the same market, may not be consistent, or many not be in alignment not be consistent with other Quality Criteria*

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Residual Mix

Current proposal language

*A **residual mix** characterizing the GHG intensity of the electricity purchased by consumers that do not make purchases of specified sources of electricity is made available for consumer scope 2 calculations, or a procedure or threshold is identified by which a residual mix emissions rate can be calculated.*

If neither adjusted emissions factors nor a threshold is available, and the instrument meets all the other applicable Quality Criteria, the instrument may be used in the market-method, but the reporting company must disclose as a footnote that a residual mix figure is not available.

Concerns

- Statement should be required
- Statement should not be required
- Who creates footnote on presence/absence of residual mix?
- What is included in a residual mix? (Terminology)

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“Instrument Feature” disclosure

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- ✓ Would name change to **"Product Generation Features and Market Context"** be more appropriate?

- ✓ What format to use for instrument/generation feature disclosure?
  - Options:
    1. Checklist
    2. Narrative

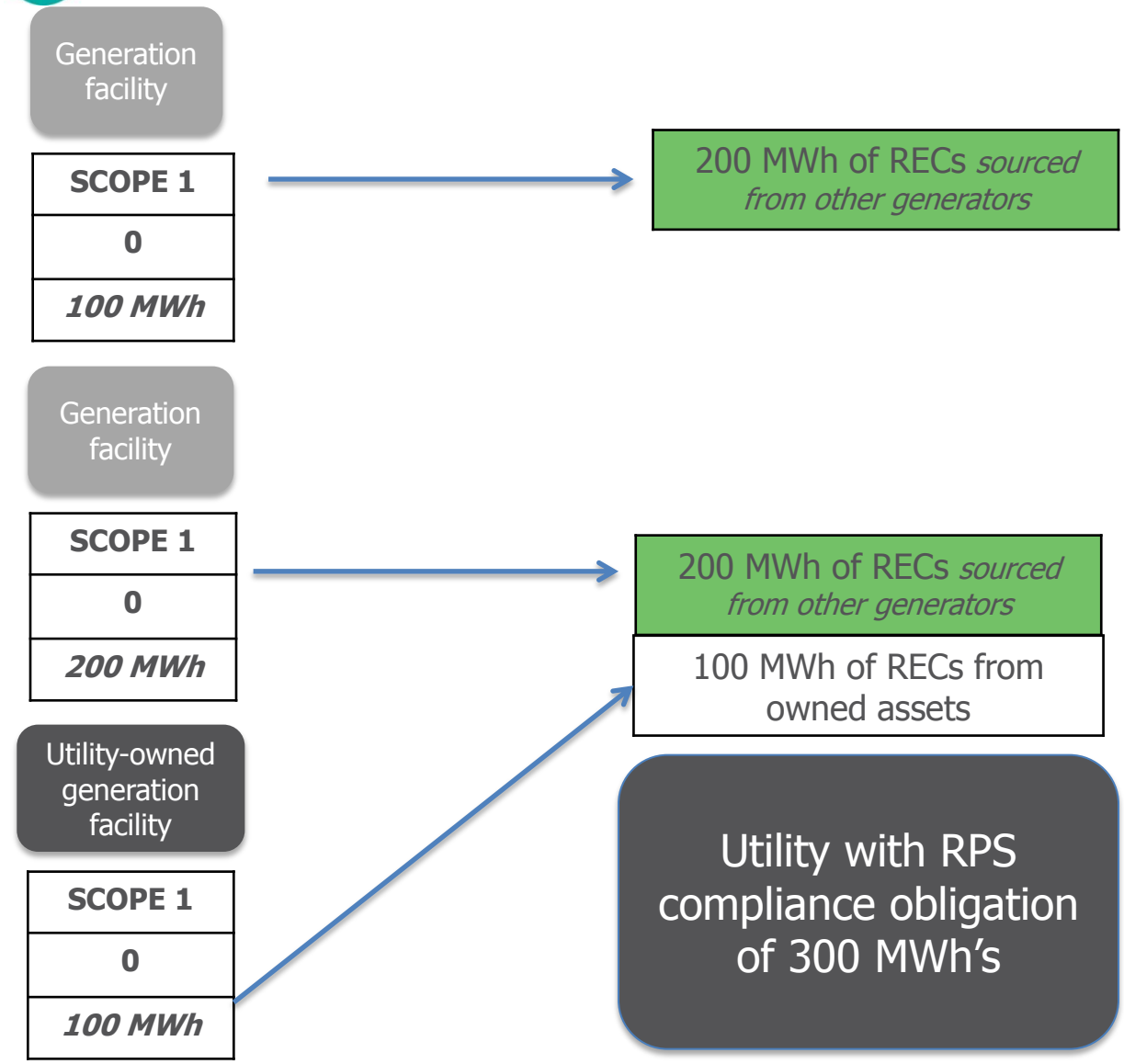
- ✓ Should require disclosure on regulatory surplus for certificates/contracts?

Features	100 MWh's RECs	100 MWh with supplier-specific factor	100 MWh adjusted national mix
• **Project location** —Where is the electricity generation facility(ies) where the instrument was generated located (state, nation)?	Colorado state (US)	PJM service territory (mix of resources)	n/a mix of resources
• **Facility age**—In what year was the generation facility that created in the certificate/contract first operational or substantially repowered?	Built in 2005	*Mix of generation facilities*	
• **Regulatory surplus**— Were the MWh's reflected in this instrument used to meet a supplier regulatory requirement?	No	Includes RECs from PA's RPS	Includes supplier quota

• **Cap and Trade**—Is the facility that produced the instruments you claim affected by a cap and trade policy? (Y/N)
  • If yes, Does the cap and trade program allocate allowances for retirement on behalf of voluntary purchases from this facility? (Y/N)
  • If yes, Were allowances retired on behalf of your voluntary purchase of instruments from this facility? (Y/N)
	No	PJM includes RGGI states, but consumption occurring in PA	No instruments

• **Offsets**—Is the facility producing other instruments such as offset credits from the same MWh? (Examples provided in Guidance)	No	No	No
• **Funding** – did the facility receive public subsidy? (If that subsidy resulted in the subsidy provider retaining the certificates and GHG emissions rate claims, then claims must follow certificates and power becomes "null power").	PTC	Mix of generation facilities	Mix of generation facilities

"Regulatory surplus" explained



- In US, voluntary RECs by definition meet regulatory surplus as each MWh can only generate one REC
- *In other markets, it depends on attribute claims*

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Emission Factor Data Type	Do these instruments meet regulatory surplus?
Electricity tracking certificates (unbundled or bundled with electricity) or equivalent instruments	✓ **US voluntary RECs – YES by definition** ✓ **GOs – not necessarily. Also possible for all generation types**
Contracts such as power purchase agreements (PPAs)	✓ Possibly –if also issuing certificates, must check how certificates are used
Supplier/Utility emission rates	✓ Supplier is the entity typically regulated; emission rates provided should contain any energy sourced for compliance purposes
Residual mix (sub-national or national)	✓ Depending on boundary, residual mix may exclude energy used for compliance (because it is tracked)

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Outline and appendices

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- How much background on tracking systems needed?
- Where is this best located in document?
- **Options**
  1. Description in **chapter 8** on market-based method
  2. Separate **appendix** on "mechanics" of a market-based system with tracking capacity
  3. Direct readers to other resources

Current Scope 2 Guidance outline

PART I: General Information
Chapter 1: Introduction
Chapter 2: Business goals
Chapter 3: Summary of reporting requirements and recommendations
Chapter 4: Accounting and reporting principles

PART II: Theory and methods for scope 2 accounting
Chapter 5: Identifying scope 2 emissions and setting the scope 2 boundary
Chapter 6: Identifying scope 2 calculation methods
Chapter 7: Location-based method
Chapter 8: Market-based method

PART III: Accounting and Reporting scope 2 emissions
Chapter 9: Collecting data and calculating emissions
Chapter 10: Reporting Requirements
Chapter 11: Setting reduction targets and tracking emissions over time
Chapter 12: Verification

Appendix A: Evaluating reductions in electricity sector emissions
Appendix B: Current instrument survey by region
Appendix C: Guidance for residential mix
Appendix D: Guidance for data quality evaluation

Abbreviations
Glossary
References
Recognition

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Next steps

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Next TWG steps

- Feedback on outstanding questions by **Fri, Dec 6th**

- Case study development
  - Preferably in time for public comment draft, but not required
  - See timeline

- Chapter drafting Editing
  - Volunteers to assist with specific chapters following initial TWG review (January)

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Timeline

Dates	Activity
Fri, Dec 6th	Responses to follow up questions in Summary document due
Fri, Dec 13th	First draft of final Guidance text distributed to TWG
Week of Dec 16th	TWG webinar orientation and discussion of first draft
Fri, Jan 10th	Feedback/edits from first draft due from TWG
Jan-Feb 2014	6-week public comment period begins (based on TWG revisions to draft)
Spring 2014	Final TWG review and publication (launch events, workshops, etc.)

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Thanks!

- **Project website**:
- *http://www.ghgprotocol.org/feature/ghg-protocol-power-accounting-guidelines*

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