

## DOCKETED

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**Slides from 4/17/2017 meeting with CRS and CEC**

*Additional submitted attachment is included below.*



## 11 Principles for PSD



## Principle

1. PSD should reflect the attributes of delivered electricity (generation that is used by the reporting entity to serve retail load)—fuel type and emissions attributes that can be claimed by customers.

"information regarding fuel sources for electric generation offered for retail sale"

"information on the sources of energy [...] that are used to provide electric services"

"Every retail supplier that makes an offering to sell electricity that is consumed in California shall disclose its electricity sources"

"The disclosures required by this section shall be made to potential end-use consumers in all product-specific written promotional materials that are distributed to consumers"

"The disclosures required by this section shall be made annually to end-use consumers of the offered electricity."

"The disclosures required by this section shall be made separately for each portfolio offering made by the retail supplier."

"A retail supplier's disclosure of its electricity sources shall be expressed as a percentage of annual sales."

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"A retail supplier's disclosure of its electricity sources shall be expressed as a percentage of annual sales."

## The Greenhouse Gas Protocol (WRI/WBCSD)

"Utility-specific emission factors shall be calculated based on delivered electricity, incorporating certificates sourced and retired on behalf of its customers."

"The supplier-specific emission factor includes emissions from all the energy delivered by the utility, not just the generation assets owned by the supplier (e.g. what is required by some fuel mix disclosure rules)."

## Principle

2. Renewable electricity cannot be reported as delivered for a consumer claim without REC retirement.

## California Law

"Renewable energy credit" includes all renewable and environmental attributes associated with the production of electricity [except for credits or payments issued pursuant to other programs]."

"Each renewable energy credit shall be counted only once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this state or any other state."

## California Law and WREGIS Terms of Use

"The [...] Energy Commission shall ensure that the tracking system [...] can ensure that renewable energy credits shall not be double counted by any seller of electricity within the service territory of the WECC."

"The Energy Commission shall [...] Design and implement an accounting system [...] to verify retail product claims in this state or any other state."

"A WREGIS Certificate (also called a renewable energy credit) represents all Renewable and Environmental Attributes from MWh of electricity generation [...]. [...] Disaggregation of Certificates is not currently allowed within WREGIS."

"Renewable and Environmental Attributes: Any and all credits, benefits, emissions reductions, offsets, and allowances—howsoever titled—attributable to the generation from the Generating Unit, and its avoided emission of pollutants."

"WREGIS Certificates are 'Whole Certificates.'"



## U.S. Federal Trade Commission

"If a marketer generates renewable electricity but sells renewable energy certificates for all of that electricity, it would be deceptive for the marketer to represent, directly or by implication, that it uses renewable energy."

"By selling RECs, a company has transferred its right to characterize its electricity as renewable."

"the Commission [...] did warn that power providers that sell null electricity to their customers, but sell RECs based on that electricity to another party, should keep in mind that their customers may mistakenly believe the electricity they purchase is renewable, when legally it is not."



## Principle

3. RECs are not just a compliance instrument.

## California Law

"Renewable energy credit" includes all renewable and environmental attributes associated with the production of electricity [except for credits or payments issued pursuant to other programs]."

"Each renewable energy credit shall be counted only once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this state or any other state."

## Principle

4. The direct emissions factor of the generation that is used for GHG accounting is exclusively conveyed by the REC and calculating emissions factors for renewable energy that are not based on RECs is double counting.

## California Law and WREGIS Terms of Use

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"WREGIS Certificates are 'Whole Certificates.'"

## The Greenhouse Gas Protocol (WRI/WBCSD)

"Electricity from renewable facilities for which the attributes have been sold off (via contracts or certificates) shall be characterized as having the GHG attributes of the residual mix in the utility or supplier-specific emission factor."

## GHG Attributes of Renewable Energy and Claims

1	The direct emissions associated with the generation—tons or tons/MWh	Claimed as the indirect (Scope 2) emissions of the user	<i>"By purchasing renewable energy, I've reduced my carbon footprint by X tons of CO2e."</i> <i>"I use 100% zero-emissions energy."</i>
2	The net change in emissions on the grid due to the generation (avoided grid emissions)—the difference in direct emissions between the renewable generation and the generation that it likely displaced	Claimed as an attribute of the generation of the user's electricity	<i>"The renewable energy I purchase avoids X tons of CO2e annually."</i> <i>"The renewable energy I use has a GHG benefit equivalent to taking X cars off the road for one year."</i>

## GHG Attributes of Renewable Energy and Claims

- |   |  |   |  |
|---|--|---|--|
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| 2 | The net change in emissions on the grid due to the generation (avoided grid emissions)—the difference in direct emissions between the renewable generation and the generation that it likely displaced | Claimed as an attribute of the generation of the user's electricity | <i>"The renewable energy I purchase avoids X tons of CO2e annually."<br/>"The renewable energy I use has a GHG benefit equivalent to taking X cars off the road for one year."</i> |

## Principle

5. Electricity without RECs must be reported as null power.

## U.S. Federal Trade Commission

"If a marketer generates renewable electricity but sells renewable energy certificates for all of that electricity, it would be deceptive for the marketer to represent, directly or by implication, that it uses renewable energy."

"By selling RECs, a company has transferred its right to characterize its electricity as renewable."

"the Commission [...] did warn that power providers that sell null electricity to their customers, but sell RECs based on that electricity to another party, should keep in mind that their customers may mistakenly believe the electricity they purchase is renewable, when legally it is not."

## Principle

6. Null and unspecified power get the residual mix.

## The Greenhouse Gas Protocol (WRI/WBCSD)

"Electricity from renewable facilities for which the attributes have been sold off (via contracts or certificates) shall be characterized as having the GHG attributes of the residual mix in the utility or supplier-specific emission factor."



## Principle

7. All purchases for deliveries to load get reported.



## The Greenhouse Gas Protocol (WRI/WBCSD)

"The supplier-specific emission factor includes emissions from all the energy delivered by the utility, not just the generation assets owned by the supplier (e.g. what is required by some fuel mix disclosure rules). Many suppliers purchase significant portions of their energy from other generators via contracts, or through the spot market. The emission factor should reflect the emissions from all of these purchases."

## Principle

8. Whether RECs are bundled or unbundled has no effect on a supplier's claims to be delivering and consumer's claims to be receiving renewable energy.

### U.S. Federal Trade Commission

"Non-renewable energy matched with renewable energy certificates likely meets consumer expectations created by a renewable energy claim. Therefore, the Commission now revises this guidance to advise that marketers may make unqualified claims when they purchase RECs to match their use of non-renewable energy."



### U.S. Environmental Protection Agency, U.S. Department of Energy, World Resources Institute, CRS

"RECs may be sold 'bundled'—paired by the electric service provider with grid electricity delivered to the buyer—or 'unbundled' from electricity as a stand-alone product and paired by the buyer with its grid electricity purchase. RECs combined with plain grid electricity are functionally equivalent to green power purchases from a local utility, no matter where the REC may be sourced."



## Principle

9. Unbundled RECs are not a fuel type.

## Principle

10. It is not typical to assign losses or energy-related transmission services to retail disclosure. Those are usually captured in residual mix.

## Principle

11. PCLs should either exclude generation allocated to differentiated products that are delivered to a specific group of voluntary customers ("voluntary products"), or disclose fuel mix for voluntary products separately.

## 7 Misconceptions

## Misconception

1. Customers that receive RECs + system power are not really getting renewable energy.



## Misconception

2. Because entities outside California purchasing null power may not be obligated to report it using the residual mix, California LSEs purchasing unbundled RECs from those facilities shouldn't be able to report the emissions associated with their RECs.



While entities purchasing null power may not be obligated to do GHG reporting, depending on state regulations, where they are or do, they could not report the null power as renewable or as having the GHG emissions profile of renewable energy without violating the FTC as well as widely-accepted GHG methodologies endorsed by US EPA, DOE, and others. There is no double counting, unless attributes are assigned to both the electricity and the REC.

## Misconception

3. Issuance and separate trading of GHG allowances means that RECs do not convey the emissions profile of renewable energy.



GHG allowances do not carry the zero GHG attributes of electricity generation and cannot be used to convey use of renewable energy or zero emissions energy in California or anywhere else. A cap-and-trade system and the use of GHG allowances affects the avoided grid emissions attribute of renewable energy, not the emissions factor attribute, which is nevertheless contained exclusively in the REC. It is this attribute which is relevant to emissions disclosure. PSD conveys fuel type attributes to electricity consumers, which is also unaffected by GHG allowances.

## Misconception

4. The exception for “emission reduction credits” in California’s definition of a REC means that RECs do not include emissions or avoided emissions attributes.



The language at CAL. PUB. UTIL. CODE § 399.12 (h)(2) excluding “emissions reduction credits” from the attributes included in a REC is intended to prevent disruption of existing air regulations in California and is not related to the direct GHG emissions factor attribute of renewable energy contained in the REC or general grid GHG reduction claims. See CPUC Decision 08-08-028: [http://docs.cpuc.ca.gov/word\\_pdf/FINAL\\_DECISION/86954.pdf](http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/86954.pdf). See the final order (p.44-46) as well as sections 4.1.2.3.2 (conclusions on p.22-27) and 4.2.

## Misconception

5. AB 1110 requires alignment of the PSD emissions intensity methodology with ARB's MRR, which means that CEC should require the same GHG reporting methodology for PSD and that unbundled RECs should not be included.



## Misconception

6. Because cap-and-trade and the MRR treat renewable imports as specified based on direct deliveries of power rather than based on REC delivery into the state, reporting of firmed and shaped power imports in PSD should be based on the imported electricity rather than the renewable generation facility that provides the RECs.



This is not consistent with the RPS, which treats these as renewable, and creates a separate accounting standard for renewables used toward the RPS and those that are not.

## Misconception

7. Instances of double counting between the RPS Adjustment and reported specified imports observed by ARB under the MRR demonstrate why firmed and shaped imports in PSD must be reported based on the imported electricity rather than the renewable generation facility that provides the RECs.



## Comparing C&T, PSD, and IRP

Different purposes. Measuring different GHG emissions.



Quite the opposite. In fact, this double counting is an example of the problems that come from not synchronizing accounting methods and recognizing instruments used in other policies (i.e. RPS with C&T/MRR). This double counting is the direct result of not recognizing that the claim to RE deliveries lies exclusively with the REC and instead choosing to account for emissions for specified imports based on the underlying power, therefore creating a different accounting mechanism for RE deliveries than what is used in the RPS.

MRR/C&T	IRP	PSD
<p>emissions from owned units and imports</p> <ul style="list-style-type: none"> <li>• does not include transactions, including purchases of unspecified and specified (emitting and non-emitting) generation that get delivered to load and sales of renewable energy (bundled or unbundled) ultimately delivered to customers by another entity</li> <li>• does not include bilateral contracts (e.g. natural gas contracts from QFs, because the QFs are reporting) or sales of bundled or unbundled renewable energy to other suppliers</li> </ul>	<p>emissions of bundled electricity that is owned and generated or purchased by LSEs to serve load</p> <ul style="list-style-type: none"> <li>• does not include purchases of unbundled RECs</li> <li>• does account for sales of unbundled RECs</li> </ul> <p>REC ownership required for RE generation that is included in order for LSEs to claim delivery of renewable power to meet load.</p>	<p>emissions of all electricity used to serve load (all delivered emissions)</p> <ul style="list-style-type: none"> <li>• every purchase of power for deliveries to load</li> <li>• does not include sales of generation or attributes not delivered to retail load</li> <li>• includes trading of renewable attributes that happen after IRP</li> <li>• includes transactions of unbundled RECs</li> </ul>

## Administrative Concerns

1. Whether to report when purchased or when used
2. Timing of REC issuance relative to PSD reporting
3. Administrative burden associated with REC reporting