

## DOCKETED

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**CRS comment on July 14 Workshop and June 27 AB 1110 Implementation Proposal for PSD**

Please find comments of Center for Resource Solutions (CRS) attached.

*Additional submitted attachment is included below.*



CRS

center for  
resource  
solutions

July 28, 2017

Jordan Scavo  
Renewable Energy Office  
California Energy Commission  
1516 Ninth Street, MS 45  
Sacramento, CA 95814-5512

**Docket No. 16-OIR-05: Comments of Center for Resource Solutions (CRS) on July 14, 2017 Pre-Rulemaking Workshop on Updates to the Power Source Disclosure (PSD) Regulations and the June 27, 2017 Assembly Bill 1110 Implementation Proposal for PSD Draft Staff Paper**

Mr. Scavo:

CRS appreciates this opportunity to submit comments on the July 14, 2017 Pre-Rulemaking Workshop on Updates to the PSD Regulations (“July 14 Workshop”) and the June 27, 2017 Assembly Bill 1110 Implementation Proposal for PSD, Draft Staff Paper (“Proposal”).

**Background on CRS & Green-e®**

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy. CRS has broad expertise in renewable energy policy design and implementation, electricity product disclosures and consumer protection, and greenhouse gas (GHG) reporting and accounting. CRS administers the Green-e programs. Green-e Energy is the leading certification program for voluntary renewable electricity products in North America. For over 20 years, Green-e staff have worked with independent third-party auditors to annually verify renewable energy purchases in the voluntary market and ensure purchasers receive full environmental benefits and sole ownership of each megawatt-hour (MWh) of renewable energy they purchase. Verification procedures ensure there is no double counting between voluntary and compliance markets, and that other renewable energy or carbon policies do not claim any of the environmental benefits of certified renewable energy. In 2015, Green-e Energy certified retail sales of over 44 million MWh, representing over 1.2% of the total U.S. electricity mix. In 2015, there were over 827,000 retail purchasers of Green-e certified renewable energy, including 36,000 businesses.

**Introduction**

Based on the July 14 Workshop, there appear to be fundamental misunderstandings of important concepts among Commission Staff, Air Resources Board (ARB) Staff, and other stakeholders. Conflations of avoided emissions and direct emissions attributes, carbon offsets and renewable energy credits (RECs), and accounting for production and consumption are affecting the accuracy of proposed PSD and may negatively affect both the Renewable Portfolio Standard (RPS) and voluntary renewable energy markets, not to mention consumers in California.

We have provided the following section on Accuracy to try to address these misunderstandings and conflations. Following that, we provide our comments on the Proposal, which are divided into Primary and Other Comments to highlight the three most important changes that we feel must be made to the

Proposal in order to prevent market disruption, avoid divergence from best practice and federal guidance, and ensure California businesses and other customers receive accurate disclosure and are not denied benefits or put at a disadvantage in terms of taking action to reduce emissions. Finally, we provide our preferred general approach to power source and emissions disclosure, including key requirements and an example power content label (PCL).

CRS is providing this information as an independent party concerned with REC integrity for accurate accounting and reporting and clear and exclusive consumer claims. We are a non-profit organization and we do not buy or sell electricity or RECs. Green-e provides independent certification services to retail suppliers in California and across the country, including both community choice aggregation programs (CCAs) and investor-owned utilities (IOUs).

## Accuracy

### “Actual Electricity”

At the July 14 Workshop, Mr. Scavo stated in his presentation that because RECs do not represent actual electricity, unbundled RECs should not be factored into the power mix or emissions disclosure.<sup>1</sup>

CAL. PUB. UTIL. CODE § 399.12(h) states that RECs represent “proof [...] that one unit of electricity was generated and delivered by an eligible renewable energy resource.” There is and can be no physical or “actual” delivery of specified generation, fuel type or emissions to grid customers. Whereas one can measure emissions and determine fuel type at the point of production, one cannot measure emissions or determine fuel type at the distribution substation or plug, or indeed once electricity has been injected to the grid. Delivery and consumption of specified power are always determined contractually. Contractual instruments must be used to assign specified generation and emissions to consumers—to determine who pays for and who has the right to claim what kind of power.

In the U.S., RECs are used as a uniform contractual instrument for renewable power to facilitate transactions, tracking and compliance. They represent the generation attributes, including the emissions profile, of the generation precisely to differentiate renewable power so that suppliers can deliver it and customers can consume it. Whether bundled or unbundled, RECs do not distort some “actual” delivery of specified power or emissions.

PSD pertains to the distribution of fuel type and emissions to customers on the grid. This can be determined by either embedding these attributes in electrons and then tracking using contracts for power, or by recording them as certificates and tracking those. Neither is “actual” or physical delivery of emissions. But the latter is certainly a more accurate way of accounting, as has been recognized by the state and 34 other states.<sup>2</sup> It is consistent with how the RPS—which is the only other state program that *delivers* specified power to customers—assigns specified generation. The most “truthful” distribution of emissions/attributes on the grid is contractual, and the most truthful and accurate distribution of emissions and other attributes of renewable energy on the grid is via RECs. A contract for power or power purchase that does not contain the attributes, or null power where the attributes have been sold,

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<sup>1</sup> Transcript of July 14 Workshop. Pg. 5, line 12 and pg. 10, lines 17-20. See

[http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-05/TN220318\\_20170724T101710\\_Transcript\\_of\\_the\\_07142017\\_Workshop\\_Updated\\_to\\_the\\_Power\\_Source.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-05/TN220318_20170724T101710_Transcript_of_the_07142017_Workshop_Updated_to_the_Power_Source.pdf).

<sup>2</sup> Jones, T. (2015). *The Legal Basis of Renewable Energy Certificates*. Center for Resource Solutions. Available online at: [http://www.resource-solutions.org/pub\\_pdfs/The%20Legal%20Basis%20for%20RECs.pdf](http://www.resource-solutions.org/pub_pdfs/The%20Legal%20Basis%20for%20RECs.pdf).

is not renewable power. RECs are not electricity but electricity cannot be specified renewable or have the emissions profile of renewable energy without them.

#### Bundled vs. Unbundled RECs, and RECs + System Power

For the same general reasons that RECs represent the most truthful, accurate, and verifiable allocation of renewable energy (i.e. there is no actual or physical delivery or consumption of specified power, fuel type and emissions), there is also no difference in terms of consumer claims between bundled and unbundled renewable energy.

Unbundled RECs procured by the retail provider and paired with local system power deliver zero-emissions<sup>3</sup> renewable power. Since there is no way to physically deliver electricity from a specified source to a particular customer on the grid, sourcing electricity and RECs from the same grid region is functionally equivalent to sourcing electricity and RECs from a single grid-connected facility for the purposes of consumer claims.<sup>4</sup> In both cases the customer can claim to be powered with renewable energy, and in neither case are the electrons physically powering their home or business necessarily originating from a renewable facility.

Once again, fuel type and emissions are always delivered and consumed outside of the grid and determined contractually. Renewable energy is, in this respect, “unbundled” at the moment the electricity is injected to the grid. As such, whether the “bundling” occurs at the wholesale level (by a generator), at the retail level (by a supplier), or indeed at the consumer level has no effect on the consumer’s claim to be receiving and using renewable electricity on the grid.

There may be other differences between bundled and unbundled that may be relevant to consumers and it is on this basis that disclosure to customers related to unbundled RECs, as required by AB 1110, can be justified. This includes where the renewable energy is located. Bundled products naturally tend to be sourced from an area within which it is possible to physically deliver electricity to the consumer, whereas unbundled RECs may be sourced from anywhere within the same electricity market (i.e. anywhere in the U.S.). Of course, unbundled RECs may be sourced locally as well.

#### Accounting and Claims Related to Production vs. Consumption

A single MWh of electricity generation can have a single producer and consumer. Each consumer’s emissions are the direct/produced emissions of someone else. There is no double counting between production and consumption—or using the terminology of GHG accounting professionals, there is no double counting between “Scope 1” emissions (direct emissions of electricity generators) and “Scope 2” emissions (indirect emissions of electricity consumers).

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<sup>3</sup> Zero-emissions for RECs from resources like wind, solar, and hydro power. Positive emissions may be assigned to RECs from certain geothermal and biomass renewable resources.

<sup>4</sup> U.S. Federal Trade Commission (FTC). (2012). *The Green Guides Statement of Basis and Purpose*. Pg. 218. Available online: <https://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-issues-revised-green-guides/greenguidesstatement.pdf>.

U.S. Department of Energy, U.S. Environmental Protection Agency, the World Resources Institute, Center for Resource Solutions. (March 2010). *Guide to Purchasing Green Power Renewable Electricity, Renewable Energy Certificates, and On-Site Renewable Generation*. Office of Air (6202J) EPA430-K-04-015. DOE/EE-0307. Pg. 10. Available online: [http://www.epa.gov/greenpower/documents/purchasing\\_guide\\_for\\_web.pdf](http://www.epa.gov/greenpower/documents/purchasing_guide_for_web.pdf).

Sotos, M. (2015) *GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard*. World Resources Institute. Pg. 56, 60. Available online: [http://www.wri.org/sites/default/files/Scope\\_2\\_Guidance\\_Final.pdf](http://www.wri.org/sites/default/files/Scope_2_Guidance_Final.pdf).

Attributes (e.g. emissions) can be directly measured at the point of generation to account for production. However, attributes (e.g. emissions) cannot be directly measured at the point of consumption or sales to account for delivery or consumption. Again, delivery and consumption of specified electricity can only be determined contractually. RECs determine delivery and consumption of renewable energy attributes, including the GHG attributes of renewable energy generation (listed in Table 1 below). RECs and other contractual instruments are not needed for or relevant to production claims, precisely because they can be directly measured and because RECs enable demand, purchasing, and supplier- or consumption-based compliance.

The ARB's Mandatory Reporting Regulation (MRR) for the cap-and-trade program is accurate for determining who produces which emissions. It is *not* accurate for determining who *consumes* those emissions in the state or the *distribution* of different sources of power among suppliers and consumers. RECs are used to determine the distribution of renewable energy and the emissions profile of renewable energy for consumption because that is the most accurate and verifiable way to do it. That again is why they are used for the RPS—to determine which suppliers are supplying or selling which power.

The MRR does not prescribe how in-state or imported emissions from power generation are used or to whom they are delivered in the state. So, the RECs associated with in-state renewable power generation or imports can be used for the RPS or a voluntary product and convey the emissions profile of the electricity and there is no double counting with the production claims made by the generator—the REC, including zero emissions, and electricity are delivered once to a single party. A generator can claim to be producing zero-emissions power, an offtaking utility/supplier can claim to be delivering that zero-emissions power and the REC, and the REC owner can claim receipt or use of that power. There is no double counting between these entities in this case.

In recognizing that RECs convey the emissions profile of renewable energy, there is no conflict with the MRR or production claims and accounting. Accounting for cap-and-trade is separate from accounting for delivered emissions based on market instruments.<sup>5</sup> Except in the case of imports, the MRR does not apply to consumption- or delivery-based accounting. RECs alone convey the delivery of attributes of renewable energy, including both fuel type and emissions, and this does not conflict with the treatment of RECs in the MRR.

#### Two GHG Attributes of Electricity Generation: Direct vs. Avoided Emissions

There are two different attributes of electricity generation related to GHG emissions (shown in Table 1 below), and both attributes can only be *delivered or consumed* contractually.

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<sup>5</sup> Imports are where these two accounting systems intersect, since imports are a delivery. RECs should be required with imports of specified renewable energy to prevent double counting. See comments to ARB on 4/28/2017 ([https://resource-solutions.org/wp-content/uploads/2017/06/CRSSuppCommenton45-daychangestoCTrule\\_4-28-2017.pdf](https://resource-solutions.org/wp-content/uploads/2017/06/CRSSuppCommenton45-daychangestoCTrule_4-28-2017.pdf)) and [https://resource-solutions.org/wp-content/uploads/2017/06/CRSCommentMRR\\_4-28-2017.pdf](https://resource-solutions.org/wp-content/uploads/2017/06/CRSCommentMRR_4-28-2017.pdf)), 11/4/2016 ([https://resource-solutions.org/wp-content/uploads/2016/11/CRScommentonOct21workshop\\_11-4-2016.pdf](https://resource-solutions.org/wp-content/uploads/2016/11/CRScommentonOct21workshop_11-4-2016.pdf)), 9/19/2016 ([https://resource-solutions.org/wp-content/uploads/2016/10/CRScomment\\_CTAmendments\\_9-19-2016.pdf](https://resource-solutions.org/wp-content/uploads/2016/10/CRScomment_CTAmendments_9-19-2016.pdf)), and 3/4/2016 ([https://resource-solutions.org/wp-content/uploads/2016/03/CRScommentstoARB\\_3-4-2016.pdf](https://resource-solutions.org/wp-content/uploads/2016/03/CRScommentstoARB_3-4-2016.pdf)). Also see comments to the state of Oregon on 7/13/2017 (<http://www.oregon.gov/energy/energy-oregon/Documents/2017-07-Public-Comments-RECs-EIM.pdf>, pg. 13-15).

**Table 1. The Two GHG Attributes of Electricity Generation and How They Relate to and are Used by Producers and Consumers**

GHG Attribute	Description	Producers/Generators		Consumers			
		How it is related to producers/generators	Producer/Generator uses	Delivery and consumption of generation attributes can only be contractually determined or verified. For renewable energy, it is determined and verified via the REC.			
				How it is related to suppliers and consumers	Supplier and consumer uses	Supplier Claims	Consumer Claims
Direct emissions	The direct emissions, emissions profile, or emissions factor associated with the generation.	<ul style="list-style-type: none"> <li>• Direct emissions at point of generation.</li> <li>• The direct (Scope 1) emissions of the generation owner.</li> </ul>	<ul style="list-style-type: none"> <li>• Emissions reporting to regulators.</li> <li>• Compliance with source-based (or production- or generation-based) emissions regulations.</li> </ul>	<ul style="list-style-type: none"> <li>• Delivered and consumed emissions.</li> <li>• The indirect (Scope 2) emissions (part of the carbon footprint) of the consumer.</li> </ul>	<ul style="list-style-type: none"> <li>• Emissions disclosure to customers.</li> <li>• Scope 2 emissions (carbon footprint) accounting/reporting by consumers.</li> <li>• Supplier-specific emissions factor calculations by suppliers.</li> <li>• Tracking emissions for imported electricity.</li> </ul>	<ul style="list-style-type: none"> <li>• “The emissions associated with our electricity supply, product or retail sales are X.”</li> <li>• “The emissions associated with this electricity import are X.”</li> <li>• “You are receiving/we are delivering zero-emissions electricity.”</li> </ul>	<ul style="list-style-type: none"> <li>• “By purchasing renewable energy, I’ve reduced my carbon footprint by X tons of CO2e.”</li> <li>• “I buy 100% zero-emissions energy.”</li> </ul>
Avoided grid emissions	The net change in emissions on the grid due to the generation. The difference in direct emissions between the generation and the generation that it likely displaced.	<ul style="list-style-type: none"> <li>• The grid emissions effect of generation.</li> </ul>	<ul style="list-style-type: none"> <li>• Impact statements primarily by low- or zero-emitting sources.</li> </ul>	<ul style="list-style-type: none"> <li>• The grid emissions effect of delivered and consumed generation.</li> <li>• The grid GHG emissions impact of the generation of the consumer’s electricity.</li> </ul>	<ul style="list-style-type: none"> <li>• Calculating the GHG reduction benefits of RE.</li> <li>• Voluntary RE set-aside calculations.</li> <li>• Impact statements by suppliers and consumers.</li> <li>• Characterizing the impact of RE policies.</li> <li>• Designing policies to create impact in terms of emissions.</li> <li>• RE-derived carbon offset calculations (where permitted and in regions without carbon regulations for the power sector).</li> </ul>	<ul style="list-style-type: none"> <li>• “You are receiving/we are delivering electricity that avoids X tons of CO2e.”</li> <li>• “Our renewable energy facilities avoid X tons of CO2e annually.”</li> </ul>	<ul style="list-style-type: none"> <li>• “The renewable energy I purchase avoids X tons of CO2e annually.”</li> <li>• “The renewable energy I use has a GHG benefit equivalent to taking X cars off the road for one year.”</li> </ul>

RECs are used to convey the direct emissions attribute in order to verify delivery of specified power and allocate emissions from generation to customers, where this would not otherwise be possible. Avoided

emissions are included in a REC<sup>6</sup> so that voluntary sales and RPS programs can deliver these benefits and so that they are not sold off separately, for example in a carbon offset.

At the July 14 Workshop, Mr. Scavo stated in his introduction presentation that California's definition of REC includes avoided GHG emissions; the avoided GHG emissions attribute does not have value under the cap-and-trade program since the total GHG emissions are fixed by the cap; and in keeping with this policy, the Proposal does not allow RECs to affect emissions disclosure to customers.<sup>7</sup> Ms. Coombs with the ARB later reiterated this in response to a comment.<sup>8</sup> As shown in Table 1, this conflates avoided grid emissions with direct emissions associated with generation. Avoided emissions are zero for renewable energy in California due to the cap. This is true. But the cap does not affect the direct emissions associated with renewable energy, a supplier's ability to deliver zero-emissions power, or a customer's ability to claim use of zero-emissions power.

In PSD and emissions disclosure to customers, RECs (including unbundled RECs) convey the emissions profile (direct emissions) of renewable energy. They do not reduce or "offset" the direct emissions of a generator on the basis of avoided emissions. RECs have no role in the MRR (except for imports) *not* because the avoided emissions are zero due to the cap but because the MRR is a production-based accounting system and RECs only convey the emissions profile of renewable energy generation to customers—they determine who gets to claim that emissions profile, not who generates it. Therefore, the Proposal's conclusion that the MRR's treatment of RECs (i.e. that they have no role) should be used in PSD and emissions disclosure to customers is incorrect both because PSD has nothing to do with avoided emissions and because the MRR is a production-based accounting system.

Other stakeholders at the July 14 Workshop stated, "RECs are not offsets" based on the same conflation of avoided emissions and direct emissions.<sup>9</sup> When talking about using RECs in PSD to convey the fuel type and emissions delivered to customers receiving renewable energy, we are not talking about treating RECs as offsets or using the RECs to reduce emissions reported by generators, which would have to do with the avoided emissions benefits of renewable energy. Rather, we are talking about using the REC for its intended purpose and for which it is necessary due to the nature of electricity: tracking attributes for consumer claims and delivery of renewable energy to consumers.

With respect to the direct emissions attribute, intellectually, it does not make sense for the emissions associated with electricity not to follow the legal, recognized market instrument for delivering and consuming renewable electricity, the REC. If RECs demonstrate that customers receive wind power through the RPS or a voluntary product, for example, then the emissions associated with their electricity consumption or that delivery should be the emissions associated with wind generation, i.e. zero. In order to support the Proposal's treatment of unbundled RECs, one stakeholder at the July 14 Workshop stated that just because an instrument or resource qualifies for the RPS does not mean it is GHG-free.<sup>10</sup> To be clear, we are not saying that all RECs accepted under the RPS should be counted as zero-emissions power. Rather, we are saying the REC instrument carries the emissions profile of the generation,

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<sup>6</sup> California Public Utilities Commission (CPUC) Decision 08-08-028.

<sup>7</sup> Transcript of July 14 Workshop. Pg. 9, lines 8-25 and pg. 10, line 1. See

[http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-05/TN220318\\_20170724T101710\\_Transcript\\_of\\_the\\_07142017\\_Workshop\\_Updated\\_to\\_the\\_Power\\_Source.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-05/TN220318_20170724T101710_Transcript_of_the_07142017_Workshop_Updated_to_the_Power_Source.pdf).

<sup>8</sup> *Ibid.* Pg. 61, lines 11-18.

<sup>9</sup> *Ibid.* Pg. 53, lines 18-23 and pg. 61, lines 15-16.

<sup>10</sup> *Ibid.* Pg. 52, lines 23-25 and pg. 53, lines 4-7.



whether that is zero or not. It is divergence from this fact which causes accounting and accuracy problems.

Prior to this Proposal, California has not previously said that the direct emissions attribute of renewable energy is not included in a REC due to cap-and-trade. California defines a REC as including “all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issued pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels.”<sup>11</sup> The language 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 avoided grid GHG reduction claims for REC consumers.

Others have pointed to Footnote 43 in the 9<sup>th</sup> edition of the Commission’s RPS Eligibility Guidebook:

“The Energy Commission uses the retirement information to verify the claims an LSE [load-serving entity] plans to use to satisfy its RPS procurement requirements, and to ensure that a REC is counted only once for compliance with the California RPS, for the regulatory requirements of any other state, or to satisfy any other retail, regulatory, or voluntary market claim.”<sup>43</sup>

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<sup>43</sup> Use of a REC for compliance with the California RPS does not preclude an LSE’s ability to report a specified import or use the RPS adjustment in accordance with the California Air Resources Board’s ‘California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms to Allow for Use of Compliance Instruments Issues by Linked Jurisdictions and Regulation for the Mandatory Reporting of Greenhouse Gas Emissions’ (California Code of Regulations, Title 17, Sections 95801 – 96022 and California Code of Regulations, Title 17, Sections 95100-95158).”

This also does not say that the direct emissions attribute of generation is not included in the REC. Rather, it simply says the REC can still be counted for compliance in California. This makes sense: cap-and-trade can count a zero-emissions import and the RPS can count that import toward the RPS—one says it is a zero-emissions import into the state (without saying anything about who in the state consumes the electricity) and the other says that renewable energy is being used for the RPS, i.e. delivered to utility customers for compliance. We do not believe that this conflicts with the fact that the emissions factor attribute is contained in the REC.

A memo from the Western Renewable Energy Generation Information Tracking System (WREGIS) to its account holders dated April 19, 2017 regarding WREGIS Certificates and Energy Imbalance Market (EIM) Crossover (“WREGIS EIM Memo”) confirms that the direct emissions attributes of renewable generation are contained in WREGIS certificates, and that a claim on this attribute (the emissions or emissions factor associated with renewable energy) represents a claim on the REC and requires REC retirement in WREGIS: “In the case of carbon attributes being claimed by a buyer of the energy, the REC would need to be retired in WREGIS as one or more defined attributes would be used by the buyer.”<sup>12</sup>

As laid out in previous comments, the use of RECs as the basis for GHG claims for purchased renewable electricity in the U.S. is also consistent with best practices for market-based Scope 2 emissions calculations and reporting, which are set internationally by The GHG Protocol, a joint initiative of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD),

<sup>11</sup> CAL. PUB. UTIL. CODE § 399.12 (h)(2)

<sup>12</sup> See <https://www.wecc.biz/Administrative/WREGIS%20EIM%20Memo%2020170419.pdf>.

as well as with guidance from the White House Council of Environmental Quality (CEQ) for emissions reporting by Federal Agencies.<sup>13</sup>

## Primary Comments on the Proposal

We believe the Proposal would have a considerable negative impact on renewable electricity markets and on consumers in California. It represents a legally questionable revision to California's definition of a REC, infringes on the property rights of REC owners, conflicts with Federal Trade Commission (FTC) and CEQ guidance and international guidance on RECs and GHG accounting for consumers. It is inconsistent with other programs that deliver renewable energy in California (the RPS and voluntary programs), creates inconsistency between power mix and emissions disclosure, and would have serious negative consequences for the voluntary market in California and all providers of voluntary renewable energy in the state (including the three IOUs)—all on the basis of a misapplication of the MRR's treatment of RECs to consumer GHG claims and a misunderstanding of the effect of bundling and unbundling with respect to consumer claims.

There are three critical changes that must be made to the Proposal to protect the integrity of the REC instrument and REC-based markets including the RPS and the voluntary market, prevent potential litigation over contractual benefits and REC property rights, and ensure that California businesses are not put at a disadvantage in terms of reporting the impact of their actions on climate change and renewable energy<sup>14</sup>:

1. The Proposal should allow for differentiation of voluntary green power products.

Rolling all of a load-serving entity's (LSE's) sales into a single PCL for all customers as proposed<sup>15</sup> represents a double claim, since it discloses that generation that is delivered to an individual customer or group can be claimed by all LSE customers. This will cause consumer confusion about what customers are buying and receiving. This conflicts with Green-e rules and would prohibit Green-e from certifying voluntary green power products in California (which is required for IOU programs<sup>16</sup>).

2. The Proposal should recognize that RECs do convey the emissions profile of renewable generation for consumer claims.

The generation attributes included in a REC include the direct emissions associated with generation and this does not conflict with the MRR. Customers receiving system mix electricity paired with RECs

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<sup>13</sup> See 3/15/2017 responses to Initial Scoping Questions ([https://resource-solutions.org/wp-content/uploads/2017/05/CRScomment\\_PSDscopingquestions\\_3-15-2017.pdf](https://resource-solutions.org/wp-content/uploads/2017/05/CRScomment_PSDscopingquestions_3-15-2017.pdf)).

<sup>14</sup> The proposal conflicts with international guidance for Scope 2 reporting, supported by The Climate Registry (TCR) and WRI. If purchasers in California cannot use RECs to purchase renewable energy, and they or their supplier must have a bundled power contract in all cases, it will be more difficult and more expensive for them to access renewable energy and take action to address climate change than in other states. In our experience, when states make policy changes that affect the benefits of RECs and voluntary renewable energy, companies stop buying and/or move their purchases to other states.

<sup>15</sup> See pg. 6 of the Proposal under "Electricity Resource Serving Private Contracts."

<sup>16</sup> California Public Utilities Commission (CPUC). Decision 15-01-051 January 29, 2015. Decision Approving Green Tariff Shared Renewables Program for San Diego Gas & Electric Company, Pacific Gas and Electric Company, and Southern California Edison Company pursuant to Senate Bill 43. Available online: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M146/K250/146250314.PDF>

(whether firmed and shaped products or unbundled RECs procured by the retail provider and paired with local system power) should be able to claim to be receiving zero emissions power. Customers receiving null power should not be able to claim to be receiving zero emissions power from renewable sources.

The staff paper denies that RECs convey the emissions profile of renewable generation for consumer claims—it effectively says that the direct emissions attribute of renewable energy is not contained in the REC, again on the basis of how RECs are treated in a production-based accounting system (the MRR), misunderstanding that RECs contain the emissions associated with generation for the purposes of *consumption and delivery claims* without double counting or affecting production claims.

According to the Proposal, customers receiving renewable energy through bundled power purchase contracts can claim zero-emissions power, though apparently not on the basis of the REC, and customers receiving system mix paired with RECs cannot claim to be receiving zero-emissions power. Furthermore, customers receiving null power can claim to be receiving zero-emissions power from renewable sources. This leads to nonsensical outcomes like, for example, where unbundled RECs are used for the RPS, the RPS can claim to be delivering wind power, for instance, but not zero-emissions power.

This Proposal denies the role of RECs in consumption claims on the basis of production accounting rules, the MRR. No other region with a cap-and-trade program does this—not the E.U. Emissions Trading Scheme (ETS), not the Regional Greenhouse Gas Initiative (RGGI). In all other regions, accounting for cap-and-trade is separate from accounting for delivered emissions based on market instruments.

When it comes to a REC requirement for specified imports, ARB has been very clear that the MRR is a source-based, production-based accounting framework and therefore does not interact with consumption- and REC-based accounting and programs. On the other hand, this Proposal says that the MRR applies directly to consumption- and delivery-based accounting for PSD and consumer emissions disclosure. In fact, the MRR does interact with consumption-based accounting when it comes to imports, since imports are a delivery, and should involve RECs in that case,<sup>17</sup> but otherwise the MRR does not apply to delivery-based accounting. RECs and RECs alone convey the delivery of attributes of renewable energy, including both fuel type and emissions. This does not conflict with the MRR.

There is no administrative reason to deny that RECs convey the emissions profile of renewable energy for consumer claims. In fact, doing so creates accounting challenges—as ARB discovered with its RPS Adjustment<sup>18</sup> and as the state of Oregon is currently dealing with in response to California’s treatment of specified imports<sup>19</sup>. There is no environmental advantage to this Proposal, as it removes benefits to

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<sup>17</sup> See footnote 5 above.

<sup>18</sup> Observed double counting by the ARB between reported specified renewable imports and the RPS Adjustment is an example of the problems that come from not synchronizing accounting methods and recognizing instruments used for deliveries and consumption in other policies. 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. Requiring RECs for specified RE imports would have avoided this double counting. See CRS comments to ARB on 11/4/2016 ([https://resource-solutions.org/wp-content/uploads/2016/11/CRScommentonOct21workshop\\_11-4-2016.pdf](https://resource-solutions.org/wp-content/uploads/2016/11/CRScommentonOct21workshop_11-4-2016.pdf)) and 3/4/2016 ([https://resource-solutions.org/wp-content/uploads/2016/03/CRScommentstoARB\\_3-4-2016.pdf](https://resource-solutions.org/wp-content/uploads/2016/03/CRScommentstoARB_3-4-2016.pdf)).

<sup>19</sup> Visit <http://www.oregon.gov/energy/energy-oregon/Pages/RECs-EIM-Stakeholder-Meetings.aspx>.

RPS ratepayers and REC purchasers, restricts access to renewable energy, and makes it more difficult and expensive to procure. There is certainly no transparency or accounting accuracy advantage to this Proposal, as the Commission must verify delivery of zero-emissions power without a verifiable and trackable instrument.

3. The Proposal should not limit deliveries of zero-emissions renewable energy that can be reported to customers to bundled power purchase contracts.

Unbundled RECs procured by the retail provider and paired with local system power deliver zero emissions power, as explained above. More importantly, this Proposal infringes on the property rights of REC owners, by denying that their RECs convey a claim to consumption of a particular fuel type and emissions profile and by, for example, assigning that emissions profile to the underlying power (e.g. null power). This would have direct implications for energy contracts, and many may have to go to court where their contracts say their RECs (WREGIS certificates) convey these benefits.

The Proposal conflicts with FTC and CEQ guidance and international guidance on RECs and renewable energy claims, all of which say that RECs plus system power represents renewable energy.<sup>20</sup> Consumers can make unqualified claims that they are receiving renewable energy when purchasing REC and system power. This was reinforced by a recent statement by the FTC in Vermont.<sup>21</sup> California law also says that RECs contain all the attributes of generation and are used for verifying retail product claims.<sup>22</sup> It does not say that only bundled power contracts convey those attributes and claims.

The role of RECs is ultimately straightforward: RECs are used to assign attributes, including emissions, to delivered or consumed power in California and across the U.S. There is a legal basis<sup>23</sup> for that and that is due to the nature of electricity, which cannot be tracked or traced to a specific customer on a shared grid. If the Commission chooses a different way to assign those attributes or denies that RECs convey those attributes for delivery and consumption claims, it will cause problems in existing markets, which can be double counting (where two parties claim the same zero-emissions power) or REC integrity problems (where the REC owner cannot claim the emissions associated with their REC). Both of these problems have legal consequences for transacting parties in energy markets, and damage demand, participation, and the impact of markets and programs that rely on RECs.

#### **Other Comments on the Proposal**

4. The Proposal reinforces the position taken by ARB on the role of RECs for specified imports, which allows for double counting.

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<sup>20</sup> See 3/15/2017 responses to Initial Scoping Questions ([https://resource-solutions.org/wp-content/uploads/2017/05/CRScomment\\_PSDscopingquestions\\_3-15-2017.pdf](https://resource-solutions.org/wp-content/uploads/2017/05/CRScomment_PSDscopingquestions_3-15-2017.pdf)).

<sup>21</sup> US Federal Trade Commission (FTC). (2015). *Letter from James A. Kohm, Associate Director, Division of Enforcement, Bureau of Consumer Protection, to R. Jeffrey Behm, Esq., Sheehey, Furlong & Behm, P.C.* February 5, 2015. Available at:

[https://www.ftc.gov/system/files/documents/public\\_statements/624571/150205gmpletter.pdf](https://www.ftc.gov/system/files/documents/public_statements/624571/150205gmpletter.pdf).

<sup>22</sup> See CAL. PUB. UTIL. CODE § 399.12 (h)(2) and § 399.21(a)(2).

<sup>23</sup> Jones, T. (2015). *The Legal Basis of Renewable Energy Certificates*. Center for Resource Solutions. Available online at: [http://www.resource-solutions.org/pub\\_pdfs/The%20Legal%20Basis%20for%20RECs.pdf](http://www.resource-solutions.org/pub_pdfs/The%20Legal%20Basis%20for%20RECs.pdf).

The Proposal will use MRR data to provide emissions factors for out-of-state, imported electricity.<sup>24</sup> Section 95111(a)(4) of the MRR requires that electricity imports be reported as specified source (and that the applicable specified emissions factor be used) if that electricity is from the generation providing entity (GPE) or the importer holds a contract to obtain power from that resource. Because this section does not provide further clarification that RECs are also required in the case that the resource is renewable, ARB Staff has interpreted it to mean that RECs are not required for specified renewable imports and that nonconformance with the REC reporting requirement in the MRR results in a qualified positive verification statement. As explained in our April 28, 2017 comments to ARB<sup>25</sup>, this allows double counting and leakage where the RECs are used outside of California.

As a result, the Proposal reinforces and exacerbates this error. It means that all imports from renewable facilities without RECs will not only be counted as delivered zero-emissions power by ARB for cap-and-trade compliance but also in specific supplier PCLs. As a result, these RECs could be double counted in California PSD if they are sold outside of California or by any other supplier that is not the LSE buying the imported power (outside of PSD, since under the current Proposal they cannot use those unbundled RECs in their own PCL) or by any voluntary customer that is not a customer of the LSE buying the imported power.

5. Renewable energy deliveries should be reported in the year of REC retirement, not the year of generation.

The Proposal states that electricity from eligible renewable energy sources should be reported according to the year in which it was generated.<sup>26</sup> As such, REC retirement is not required for reporting renewable energy deliveries (except for unbundled RECs which are reported in the year of retirement<sup>27</sup>). Notwithstanding Staff's claims that renewable energy cannot be reported in the year of REC retirement due to differences in the reporting timeframes between RPS (multi-year compliance period) and PSD (annual reporting),<sup>28</sup> we have provided solutions in previous comments<sup>29</sup> and in the section below. Where RECs are not retired, renewable energy has not been delivered according to the definition of a REC. The Proposal's current prohibition of unbundled RECs for use in fuel mix and emissions reporting is intended to mitigate a concern of double counting in the case that renewable energy is generated, reported, and the RECs are subsequently sold, since those unbundled RECs could not in that case be reported. However, we do not suggest that renewable energy deliveries be limited to bundled and firmed and shaped transactions. In addition, RECs sold off after generation, while they could not be reported in PSD under the current proposal, could be used in the RPS or the voluntary market by a different supplier, where they would be double counted since the underlying power will have been reported as renewable in PSD by the user of the power.

6. The emissions factor used for unspecified power should be a residual mix.

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<sup>24</sup> Proposal, pg. 9.

<sup>25</sup> See [https://resource-solutions.org/wp-content/uploads/2017/06/CRSCommentMRR\\_4-28-2017.pdf](https://resource-solutions.org/wp-content/uploads/2017/06/CRSCommentMRR_4-28-2017.pdf).

<sup>26</sup> Proposal pg. 11.

<sup>27</sup> Proposal pg. 14.

<sup>28</sup> Proposal pg. 11: "These programmatic differences prevent eligible renewable energy resource reporting under PSD to align with that through the RPS program."

<sup>29</sup> See April 12, 2016 comments to CEC under DOCKET NO. 14-OIR-01. [https://resource-solutions.org/wp-content/uploads/2016/04/CRScomment\\_15-DayPSD\\_4-12-2016.pdf](https://resource-solutions.org/wp-content/uploads/2016/04/CRScomment_15-DayPSD_4-12-2016.pdf).

The Proposal uses the ARB’s default emissions factor for unspecified power.<sup>30</sup> But the GHG intensity for unspecified power used for PSD should reflect what has already been bought and sold and should therefore be calculated as having the GHG attributes of the “residual mix:” the regional emissions rate left after specified power and REC purchases (for example voluntary green power products and RPS procurement) are removed from the system—in other words, the emissions from all untracked and unclaimed energy. See below for a preferred general approach to calculating residual mix.

## **CRS’s Recommended Power Source and Emissions Disclosure Approach and Example PCL**

We recommend the following power source and emissions disclosure requirements.

1. Renewable energy cannot be reported as delivered without REC retirement.

In the case of bundled renewable energy purchases where the REC is retired in a different calendar year, the REC is effectively unbundled, meaning the electricity should be reported as null in the year of purchase, and the REC is paired with a MWh of unspecified power and reported as specified renewable (re-bundled) in the year that it is retired. Retail sellers will therefore wait to report renewable energy on PCLs until RECs have been issued and retired.

Reporting entities always have the option to simply make annual retirements of RECs for RPS in order to report deliveries of renewable energy for PSD—independently aligning the two programs. But to address the effect of banking or holding RECs for RPS compliance, where this is necessary, LSEs can have the option to true up older labels based on retirements of RECs held from previous years, provided that they disclose on the PCL that the specified renewable energy number could change *and* that this is only permitted for the RPS component of the PCL (not all renewable energy).

2. Null power and unspecified power get assigned a residual mix emissions factor.

In a place without all-generation tracking like the West, residual mix can be calculated as the system mix minus everything that was sold as specified generation (including null power). It could also be calculated as the aggregated mix of generation that was sold on the spot market or purchased in EIM by California LSEs, not included in specified contracts. Any specific contracts for renewable energy should not be included in residual mix. In particular, any renewable energy purchases that are intended for RPS, whether or not the RECs are retired, should be excluded from the residual mix. In other words, renewable energy for which the RECs have been sold, held, or otherwise not retired (null power) in that reporting year is not included in the residual mix calculation. This effectively means that the emissions attributes of this power (including banked RECs) are not included anywhere in emissions disclosure—reported as specified renewable energy or included in the residual mix. If a significant amount of RECs are held or banked, this may result in residual mix emissions that in combination with emissions from all other generation are slightly dirtier than actual grid emissions, but this just reflects the fact that zero-emissions attributes are being held and not being delivered.

In order to calculate this residual mix, reporting entities need to identify all renewable energy purchases they made that are intended for the RPS (those are the only purchases for which they should be holding and not retiring RECs), even if they have not retired the RECs yet.

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<sup>30</sup> Proposal pg. 16.

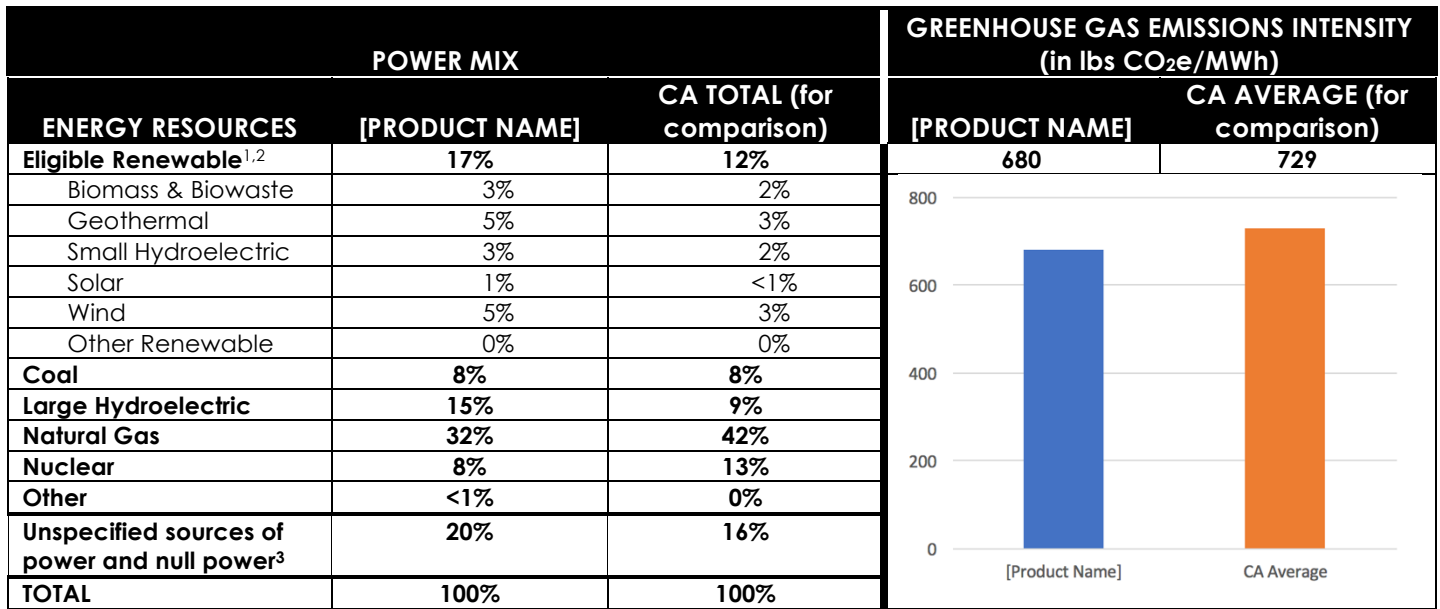
3. All purchases for retail sales get reported.

Unbundled REC purchases will be included in reported renewable energy deliveries, and required disclosure about unbundled RECs will be provided outside of the fuel-type percentages.

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

Figure 1. Example of Recommended PCL

## POWER CONTENT LABEL



<sup>1</sup> Eligible renewable energy resources are based on eligibility under California's Renewable Portfolio Standard. For more, see <http://www.energy.ca.gov/renewables/documents/#rps>.

<sup>2</sup> 5% of this product's (17%) eligible renewable electricity was provided by purchases of "unbundled" renewable energy credits that were purchased by [Entity Name] separate from the electricity associated with those credits. Renewable energy credits are a certificate of proof that one unit of electricity was generated and delivered by an eligible renewable energy resource, and it includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource.

<sup>3</sup> Unspecified sources of power means electricity from transactions that are not traceable to specific generation sources. Null power means electricity from specified generation sources for which the renewable energy credits have been sold and therefore cannot be classified as specified renewable.

For specific information about this electricity product, contact [Entity Name] at [Entity phone number] and/or visit [Entity Website]. For general information about the Power Content Label, contact the California Energy Commission at 1-844-217-4925 or [www.energy.ca.gov/pcl](http://www.energy.ca.gov/pcl).

Please let me know if we can provide any further information or answer any other questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Jones', with a stylized flourish at the end.

Todd Jones  
Senior Manager, Policy and Climate Change Programs