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Docket No. 16-OIR-05: Comments of Center for Resource Solutions (CRS) on October 9, 2018 Assembly Bill 1110 Implementation Proposal for Power Source Disclosure, Third Version

Mr. Scavo:

CRS appreciates this opportunity to submit comments on the October 9, 2018 Assembly Bill 1110 Implementation Proposal for Power Source Disclosure (PSD), Third Version ("Third Proposal"). Our comments are organized into General Comments that include our overall comments on the Proposal and recommendations, and Detailed Comments that provide responses to specific language in the Proposal in the order it appears and additional recommendations.

Background on CRS and 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. Among others, CRS administers the Green-e programs. Green-e 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 2017, Green-e certified retail sales of over 60 million MWh, representing over 1.6% of the total U.S. electricity mix. In 2017, there were over 1.1 million retail purchasers of Green-e certified renewable energy, including 63,400 businesses.

General Comments

1. We express strong support for the proposed requirement that renewable energy credits (RECs) must be procured and not sold for reporting delivery of a renewable fuel type and GHG emissions from a renewable fuel source in PSD.

Specifically, we support the following new requirements in the Third Proposal:

- Direct deliveries of renewable generation must include the procurement of the associated RECs for fuel type and GHG emissions accounting;
- Null power will be assigned the fuel type and GHG emissions profile of unspecified electricity; and

- Electricity from eligible renewable energy sources will be reported in the year it was procured and if a retail supplier subsequently sells RECs from directly delivered electricity or firmed-and-shaped imports in a quantity that exceeds one percent of the relevant reporting year's retail sales, the retail supplier must revise the affected data year's PSD annual report to reclassify the renewable electricity as unspecified power.

In combination, these proposed requirements prevent REC disaggregation and double counting of renewable energy attributes. They resolve our primary concern with the previous proposal¹ and the Clean Net Short (CNS) proposal². They also will avoid the potential negative market outcomes associated with double counting that we had described in our previous comments³. As a result of these changes alone, the Third Proposal represents a significant improvement upon the previous one and we thank Commission Staff for its thoughtful consideration of our comments and those submitted by others on this issue.

We respectfully request that draft regulations and supporting documentation include additional information about how Commission Staff will verify REC sales, what documentation will be required, and specific instructions for revisions of affected data year's PSD annual report.

2. It is unnecessary and inadvisable not to allow unbundled RECs that were generated in California or that come from facilities directly delivering into California (i.e. that were imported bundled) to be paired with unspecified or specified renewable procurements and reported as delivered renewable energy (both in terms of fuel type and emissions). Not allowing this specific unbundled REC procurement to be reflected in PSD may have the effect of restricting trading within the state, limiting the value of certain long-term contracts, and making renewable energy more expensive for suppliers or customers.

Though prohibiting unbundled RECs in PSD does not result in an accounting problem, and notwithstanding Commission Staff's preference not to allow unbundled REC imports, presumably to establish the same boundaries for delivery in PSD as the Mandatory Reporting Regulation (MRR), there is no need to restrict trading *within* that boundary. The state can allow unbundled RECs to be reported as long as the power is directly delivered in the boundary, for example. The Commission can limit eligible renewable energy in PSD to that which is generated in California or imported bundled, i.e. that comes from facilities that are directly delivering into California, and still allow for unbundled trading within that boundary. This would not affect the MRR, because the boundaries of the two programs are the same in this case. This only affects the distribution of renewable energy within the boundary. This would allow for renewable energy trading within the state, which is better for markets and provides flexibility to suppliers.

For example, a party may enter into a long-term bundled contract for more renewable energy than it needs in order to help a project move forward. Where parties have bundled power contracts and do not need to deliver all of it to meet their own needs, and are oversupplied in RECs, they can sell those RECs

¹ See CRS Comments on Feb 1 Workshop and Jan 17 Revised AB 1110 Implementation Proposal for PSD. TN# 222713 in Docket 16-OIR-05. Available at: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=222713>.

² See CRS Comment on PG&E Supplemental GHG Metric Methodology. TN# 221389 in Docket 16-OIR-05. Available at: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=221389>.

³ See pg. 5-6 of CRS Comments on Feb 1 Workshop and Jan 17 Revised AB 1110 Implementation Proposal for PSD. TN# 222713 in Docket 16-OIR-05. Available at: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=222713>.

and that delivery claim to someone else. This kind of trading and these long-term contracts would be disincentivized by PSD rules that do not allow the purchaser to report its purchase in PSD. In this case, it is still renewable energy that was directly delivered to California. Requiring renewable energy to stay bundled all the way through to the customer seems overly restrictive and is not required by the MRR. Recognizing this trading also reflects the legal allocation of attributes.

We recommend that the Commission recognize unbundled trading between suppliers in the state, which again does not affect the MRR's total emissions for the state. It would, however, require that Staff appropriately acknowledge that the renewable attributes reside only in the REC. At several points in the Third Proposal, Staff asserts a distinction between bundled and unbundled renewable energy in terms of attributes and claims, as if there is some physical renewable electricity delivery.⁴ In particular, it incorrectly denies that unbundled RECs convey emissions attributes for retail claims in order to explain the proposed ineligibility of unbundled imports to be consistent with the MRR and defend the appropriateness of the MRR for retail emissions calculations.

3. The treatment of firmed and shaped renewable imports under the Third Proposal remains problematic from the perspective of both accurate accounting and consumer protection. Accounting for retail claims should be synchronized across state programs. But regardless, it is entirely confusing and illogical to assign a renewable fuel type and non-renewable emissions to firmed and shaped procurements in an attempt to align PSD with both the RPS and MRR simultaneously.

The treatment of firmed and shaped renewable imports under the Third Proposal does not result in double counting. Though the emissions factor attribute cannot be reported in PSD, it cannot be otherwise counted and therefore can be considered to remain exclusively contained in the REC. Rather, it creates a scenario wherein no one is able to report those renewable attributes in PSD. However, it challenges the integrity of the accounting instrument, which may have negative consequences for renewable energy markets. It conflicts with existing state programs and federal guidance. Not least of all, it results in inescapably confusing and factually inaccurate disclosure.

In failing to recognize that the emissions associated with renewable generation are contained exclusively in the REC for retail claims, the Third Proposal violates the state's REC definition. RECs are defined as including "all renewable and environmental attributes"⁵ and "shall be counted only once for [...] verifying retail product claims in this state or any other state."⁶ California's REC definition does not exclude the emissions associated with generation in the case of firmed and shaped procurements. It does not specify that inclusion of these attributes in the REC requires a power contract from the same facility. Treatment of firmed and shaped renewable imports per this Third Proposal may therefore infringe on the legal rights and claims of REC owners, under California law, and per the terms of use of the Western Renewable Energy Generation Information System (WREGIS)⁷ and bilateral contracts for power and attributes. This would have direct implications for energy contracts, and parties may have to go to court to defend their contractual rights.

⁴ See our detailed comments on the Third Proposal in the following section for more discussion of these areas of the Third Proposal.

⁵ CAL. PUB. UTIL. CODE § 399.12(h)(2)

⁶ CAL. PUB. UTIL. CODE § 399.21(a)(2)

⁷ See Western Electricity Coordinating Council, WREGIS Operating Rules (July 15, 2013). Section 2, pg. 2, 4-5. Available at: <https://www.wecc.biz/Corporate/WREGIS%20Operating%20Rules%20072013%20Final.pdf>.

It also contradicts guidance from the U.S. Federal Trade Commission (FTC), which states that there is no meaningful distinction between a bundled and an unbundled procurement with respect to customer expectations about renewable energy delivery and consumption, and that businesses may make unconditional claims when they purchase RECs to match their use of non-renewable energy.⁸

But beyond these legal and accounting challenges, and their potential market consequences, there is a fundamental falsity and consumer issue with the treatment of firmed and shaped procurement under the Third Proposal. Renewable energy cannot have non-renewable emissions, or other non-renewable attributes for that matter. Fuel type and emissions must go together—these attributes cannot be separated. Emissions are determined by fuel type. Discrepancies between fuel type and emissions in PSD do not meet the simplest definition of accurate and simple to understand disclosure.

The accounting rules for retail claims should be aligned between the RPS, PSD, and MRR (if MRR is indeed for retail claims). Either firmed and shaped renewables are renewable energy, or they are not. If they are considered a renewable energy delivery for retail claims under the RPS, then they should be under PSD as well—in terms of both fuel type and emissions. The state must either change the RPS or recognize it in PSD. If both the RPS and the MRR reflect retail claims (one for fuel type and the other for emissions) and they disagree on firmed and shaped imports, they must be reconciled.⁹ But PSD should not attempt to be consistent with both by creating a factual discrepancy between fuel mix and emissions.

We recommend that firmed and shaped procurement be reported as having a renewable fuel type and emissions. There is no accounting problem in this case.¹⁰ However, it would, in our opinion, be less confusing to customers for the Commission to assign firmed and shaped procurements both the fuel type and emissions of the substitute power, if the proposed treatment in the Third Proposal is the only alternative. That would be inconsistent with the RPS, and less defensible than treating them as renewable in terms of the realities of renewable energy markets, but still an improvement upon the treatment in the Third Proposal.

4. The Third Proposal contains a number of inaccurate statements about RECs, many of which are addressed in our detail comments below. Most of these statements are unnecessary to explain a limitation on unbundled RECs in PSD, which can simply be based on preference for certain types of procurement and the associated perceived benefits.

⁸ See 16 C.F.R. § 260.15(a) and (d). And US Federal Trade Commission (FTC). (2012). *Guides for the Use of Environmental Marketing Claims; Final Rule*. 260.15(a) and (d).

Also see 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>

Also see 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.

⁹ Though CARB Staff deny that the RPS Adjustment in the cap-and-trade regulation represents a recognition of firmed and shaped imports as renewable, or that it is intended to align cap-and-trade with what is considered to be a renewable import under RPS—rather, they characterize it as financial adjustment—the RPS Adjustment nevertheless has the effect of aligning cap-and-trade with the RPS by adjusting compliance obligations to diverge from would otherwise be determined by the MRR.

¹⁰ See our detailed comments on the Third Proposal in the following section for more explanation.

Staff's proposal to limit reporting of unbundled REC procurements in PSD—though it may be questioned from the perspective of what is best for renewable energy development, demand, and access—is a matter of policy preference and does not result in double counting. The state can choose to do so simply on the basis of policy preference for a certain type of procurement based on perceived impact on in-state development or other perceived benefits of bundled procurement. However, the explanation provided in the Third Proposal is that the limitation on unbundled RECs in PSD is a matter of accurate accounting. In attempting to explain its approach to unbundled RECs and firmed and shaped power on the basis of accurate accounting, the Third Proposal incorrectly presents RECs as somehow different than other contractual instruments in terms of delivery claims, and contracts for power as somehow more accurately representing the sources of electricity and attributes that can be claimed by consumers. It maintains the fallacy that power can be directed on the grid from individual sources to individual suppliers and customers, and that unbundling is equivalent to shuffling and laundering of emissions. We address a number of specific instances and inaccurate statements to that effect in our detailed comments below.

We recommend that these statements be removed or revised in future supporting documentation for draft regulations and formal rulemaking to acknowledge that there is no accounting problem if unbundled RECs are allowed, and that the REC alone conveys delivery of both a renewable fuel type and emissions from renewable generation for retail product claims according to California regulation. The state can nevertheless choose not to allow reporting of unbundled procurement and provide a rationale for that decision based on objectives besides accurate accounting of renewable attributes.

5. The Third Proposal makes important, new statements about the relationship between the MRR and a GHG accounting methodology for retail sales of electricity. These statements are not limited in their implications to PSD. The Third Proposal contains language linking the account of emissions produced by the MRR to retail claims perhaps for the first time, and which may require that California Air Resources Board (CARB) Staff consider amendments to that regulation in order to avoid double counting of retail claims.

Sections of the Third Proposal entitled, “California GHG Emissions Accounting” (pg.8-11), “GHG Emissions Accounting” (pg.12-13), and “GHG Emissions Accounting” (pg.16-17) generally describe the MRR as a source-based protocol that nevertheless incorporates, is relevant to and appropriate for retail GHG accounting. Here are several examples:

- “For purposes of establishing the total emissions attributable to the state’s electricity sector, the State recognizes emissions associated with in-state generation and that from imported electricity delivered to a California balancing authority. Similarly, for consistency and reliability of data, accounting at the retail level should seek to align with these established practices. Consistent with the statutory definition of statewide GHG emissions and existing State emissions accounting programs such as MRR and the GHG Emission Inventory, staff proposes to track and account for GHG emissions under PSD as those attributable to California on the basis of the electricity that is delivered to a California balancing authority” (pg.10-11).
- “It would be inaccurate and inconsistent for PSD to identify emissions sources *outside* of those identified by CARB as comprising the emissions sources attributable to California’s electricity sector” (pg.12).
- “MRR assigns emissions to firmed-and-shaped imports based on the electricity delivered to a California balancing authority. It would contradict established State regulations for emissions

accounting if PSD were to assign a zero-GHG emissions value to those same firmed-and-shaped imports regardless of the delivered electricity” (pg.13).

- “The MRR identifies the pool of emissions sources attributed to California’s electricity sector. It would be inaccurate and inconsistent for PSD to identify undelivered electricity from renewable generators as electricity sources serving California retail customers when those resources are not numbered among the emissions sources enumerated under MRR” (pg.17).
- “Staff assert that alignment with MRR emissions accounting enables the State to communicate coherent messaging about the emissions attributable to California’s retail electricity sector” (pg.17).

To summarize, the MRR produces an account of emissions within the boundary for electricity delivery, and, Commission Staff argues, PSD must be consistent. Since emissions reported through PSD can be claimed by retail customers in California, by transitive property, the MRR also represents an accounting of retail emissions for California. Furthermore, the approach to firmed and shaped emissions in the Third Proposal is predicated on this idea. Otherwise, firmed and shaped renewable imports would be assigned emissions to align with the delivery of renewable fuel type under the RPS, the only state program other than PSD that confers retail claims to renewable electricity attributes.

This language in the Third Proposal may support an argument that the MRR must be amended, perhaps to recognize firmed and shaped renewable imports as having a renewable emissions factor based on the RECs¹¹, but more significantly, to require RECs for the assignment of a specified renewable emissions factor to imported electricity, in order to avoid double counting. To date, CARB Staff has dismissed this potential double counting on the basis that the MRR is a source-based protocol that is not intended to be used for retail claims. Assuming that Commission Staff has consulted with CARB Staff on the Third Proposal, this document may reflect that the state is now agreed that assignment of emissions under the MRR creates retail claims for California customers. In that case, changes will be required to the MRR in order to avoid double counting in other state RPS and voluntary programs.

We respectfully request clarification on this matter as it relates to PSD. Either the MRR is for retail claims, in which case it double counts unless it requires RECs for specified renewable imports and should be changed before it is used as a model for PSD, *or* the MRR is not for retail claims, in which case it should not be used as a model for PSD. In either case, Commission Staff’s arguments against including unbundled RECs and recognizing firmed and shaped emissions as being associated with the RECs do not stand up. If the MRR is for retail claims, double counting in the MRR would produce double counting in PSD if not corrected (and if corrected, Staff could no longer argue that the MRR addresses retail delivery of emissions without RECs). If the MRR is not for retail claims, its treatment of unbundled imports and firmed and shaped power should not dictate their treatment in a GHG accounting methodology for retail sales of electricity in PSD.

Detailed Comments on the Third Proposal

The Third Proposal contains inaccurate statements about RECs, a selection of which are addressed below. We recommend that these statements be removed or revised in future supporting documentation for draft regulations and formal rulemaking. We also recommend that:

¹¹ Though, again, the effect of the RPS Adjustment is to correct this discrepancy between the MRR and retail claims under the RPS in terms of cap-and-trade compliance obligations.

- Statements about Scope 2 Guidance should not be included in supporting documentation for future draft regulations and formal rulemaking;
- Private contracts and differentiated electricity product attributes should be removed from the default electricity portfolio disclosure and disclosed separately to the appropriate customer groups; and
- Changes should be made to proposed footnote language on the proposed power content label (PCL).

Pg. 7, pg. 12	<p><i>“Under a firming-and-shaping agreement, substitute electricity is procured and delivered to a California balancing authority on behalf of a retail supplier. Energy Commission staff is not aware of compelling evidence that the emissions associated with that substitute electricity should not be attributed to the procuring retail supplier. Further, should the emissions associated with the substitute power not be attributed to the procuring retail supplier, it is unclear to whom they would be attributed; staff is not aware of reciprocal accounting regimes or tracking infrastructure that could ensure that emissions displaced through a firm-and-shaped transaction would be accurately accounted for somewhere in the Western Interconnection.”</i></p> <p><i>“Staff contends that any emissions associated with electricity procured and delivered on behalf of a California retail supplier must be attributed to that retail supplier. In the case of firm-and-shaped imports into California, the emissions associated with the delivered substitute electricity must be attributed to the procuring retail supplier since that entity paid for and took delivery of the electricity. No other entity has a contractual claim or the e-tag delivery path demonstrating a claim to that electricity and its associated emissions.”</i></p>
	<p>With firm-and-shaped power, the attributes of the substitute power get allocated to the purchaser of null or unspecified power, as long as null power cannot be claimed as renewable. Null power cannot be reported as renewable or zero-emissions in any other regulatory or voluntary program that exists. 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.</p> <p>To avoid double counting, once unbundled RECs have been sold by a renewable generator or electricity supplier, the underlying electricity can no longer be considered renewable. It is null power and has the attributes (emissions) of the residual system mix. When either a supplier or end-use consumer purchases unbundled RECs, the RECs (re-)define the attributes of the electricity with which it is matched (delivered or consumed), and the attributes from the default product get (re-)distributed to the rest of the supplier’s customers, such that their power gets incrementally dirtier. The regional mix and emissions factor in the area where the unbundled RECs were generated will be automatically affected (i.e. get dirtier), provided there is no double counting. For example, if a consumer is located in Pacific Gas & Electric (PG&E) territory in Northern California and buys unbundled RECs from Texas, her electricity becomes renewable and gets cleaner and the utility emissions factor and regional grid emissions factor in Texas gets dirtier. In this case, nothing might happen to PG&E’s emissions factor. PG&E’s mix hasn’t changed, but the allocation has, from the unbundled REC consumer to the null power purchaser in Texas. The California consumer gets the REC and whoever gets the null power (electricity minus the REC) gets what she had. If, however, the California consumer is buying voluntary renewable energy from a facility in PG&E’s territory, then that would be automatically reflected in PG&E’s mix (i.e. it would get dirtier) since PG&E would not have those RECs.</p> <p>This allocation and redistribution of generation attributes to different customers on the grid using unbundled RECs may allocate existing renewable generation to different consumers. This effect is not limited to unbundled instruments. Contracts for existing physical electricity can also be reallocated to different consumers without affecting generation or grid composition.</p>

	<p>Most of eastern U.S. has tracking systems that track all generation, and they calculate and disclose this exact transaction of attributes. Similar all-generation certificate tracking in WREGIS may be a solution. CRS was the lead contractor with the Commission on the design of WREGIS, led the committee that developed the operating procedures, and continues to serve on the Stakeholder Advisory Committee. We can work with the Commission and program administrators to pursue all generation tracking in WREGIS, similar to that which we see in the NEPOOL-GIS, PJM-GATS, and NYGATS systems already. These systems facilitate the most precise accounting of delivered power, including residual mixes, in their regions. They also serve states that have cap-and-trade programs, and we have provided analysis to the Regional Greenhouse Gas Initiative (RGGI) for how they can use all generation tracking systems to account for imports. All-generation certificate tracking could be used to standardize PSD across the WREGIS footprint and ensure, among other things, proper accounting of null power across the West.</p>
Pg. 7	<p><i>"Including unbundled RECs in a retail supplier's fuel mix or GHG emissions intensity would inaccurately portray the sources of electricity serving California retail customers."</i></p>
	<p>This is not true. RECs are a contractual instrument representing generation attributes, including fuel type and direct emissions. Staff has acknowledged that delivery of electricity refers to contractual delivery of sources, not physical electrons, in Footnote 8 of the Third Proposal (pg. 6).</p>
Pg. 7	<p><i>"Allowing unbundled RECs to adjust the characteristics of the actual electricity sources serving California retail customers would not support the statutory requirement for retail suppliers to provide accurate and simple-to-understand information about their customers' electricity sources."</i></p>
	<p>There is no "actual" or physical electricity source. The sources of electricity used to serve customers cannot be physically determined (or else it would not be cost-effective to do, or yield a result that is more accurate or better for markets). They can only be determined contractually. A contract for physical power is not a better approximation of "actual" sources than a REC. RECs have been defined in California and WREGIS as representing all attributes of renewable generation¹² precisely in order to verify that electricity supplied to California end-use customers is generated by renewable energy resources,¹³ to verify exclusive retail product claims,¹⁴ and to facilitate tracking and trading of renewable energy using a uniform instrument. Contrary to misrepresenting the characteristics of the renewable sources of electricity used to serve customers, RECs are the only credible way to verify them.</p> <p>Whether RECs are bundled or unbundled, it is still the REC that verifies delivery and use of specified renewable electricity. A contract for electricity and RECs is no different in this respect from separate contracts for unbundled RECs and electricity. The physical electricity carries no generation attributes and means nothing for accurate renewable energy disclosure. Nothing other than proof of delivery and receipt of the fuel type and emissions attributes, i.e. the REC, is needed for accurate disclosure of renewable fuel and emissions to customers according to California regulation.</p> <p>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 accurate accounting and consumer claims. 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. 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, which is precisely what is being communicated in PSD.</p>

¹² CAL. PUB. UTIL. CODE § 399.12(h)(2)

¹³ CAL. PUB. UTIL. CODE § 399.11(e)(1)

¹⁴ CAL. PUB. UTIL. CODE § 399.21(a)(2)

	Limitations on the reporting of unbundled REC procurement in PSD cannot be based on accurate accounting of the characteristics of electricity sources serving California customers. Rather, it must be based on other perceived differences between bundled and unbundled procurement, perhaps related to the effect of the procurement on the grid.
Pg. 4, 7, 8, & 12	<i>“Unbundled RECs are not associated with the delivery of electricity.” “Since the retail supplier procured only the RECs and not the associated renewable electricity, those RECs are not an electricity source serving California retail load.” “A REC is not electricity; it is a tracking instrument for renewable generation and supports retail level renewable energy claims.” “RECs, which, as stated, do not represent procured electricity.”</i>
	All electricity customers in California are receiving electricity. Their monthly bills are accurate disclosure of physical electricity delivered. PSD discloses generation attributes. Establishing a renewable electricity source for California customers requires delivery of renewable generation attributes, which are not physically delivered through the grid or embedded in electrons. In California, renewable generation attributes are exclusively contained in a REC. RECs are not electricity but electricity cannot be renewable or have the emissions profile of renewable energy without them. RECs represent procured (or delivered) renewable electricity when combined with consumption/delivery of physical power on the grid, whether bundled or unbundled.
Pg. 12	<i>“Staff has concluded that the method for determining the fuel mix under PSD should align with the established method under the RPS, with the exception of unbundled RECs, which, as stated, do not represent procured electricity.”</i>
	All renewable energy used by suppliers for RPS compliance may be reported as renewable energy in PSD. Compliance value under the RPS is delivered renewable attributes, by definition; the RPS is a percentage of sales, a percent of what is delivered to end use customers. ¹⁵ The state has accepted that unbundled RECs verify delivery of renewable energy under the mandate of the RPS. It is unclear why unbundled RECs would misrepresent the sources of electricity in PSD but not in RPS. However, the eligibility rules may nevertheless be different between the two programs. The state may choose to limit what gets reported in PSD, provided sufficient disclosure is provided to the customer to avoid confusion.
Pg. 15-16	<i>“Reporting eligible renewable energy generation in the year the associated REC is retired would result in discrepancies between annual electricity procurements and annual retail sales, as renewable electricity generation would be reported according to the REC retirement year, while nonrenewable generation would still be reported according to the year in which it was generated.”</i>
	It does not matter if non-renewable generation is reported in the year of generation and renewable is reported in the year of REC retirement. This inconsistency is de minimis, especially relative to not requiring REC retirement for renewable energy. We have RECs for renewable resources; we do not have them for other non-renewable resources. RECs are nonetheless the most accurate accounting tool for generation attributes and without requiring REC retirement for renewable energy disclosure, there may be double counting. Again, all-generation tracking through WREGIS may be a solution to facilitate the most precise accounting of delivered power based on certificate retirements and cancellations for all resources.
Pg. 17	<i>“Using RECs to offset emissions from substitute electricity could leave emissions unaccounted for somewhere in the Western Interconnection, since most other jurisdictions lack reciprocal retail-level emissions accounting regimes to ensure uniform treatment of firmed-and-shaped imports and null power.”</i>
	RECs are not used to offset emissions. See our comments above regarding the role of RECs and accounting for null power. Null power cannot be counted as renewable in any other compliance or voluntary program that exists.
Pg. 17-18	<i>“The joint letter expresses a consistent understanding of the role of RECs in GHG emissions accounting. Although a REC includes all renewable and environmental attributes associated with electricity production, including avoided emissions, a REC is not an emissions reduction credit and cannot be used for</i>

¹⁵ CAL. PUB. UTIL. CODE § 399.11(a) and (e)(1).

	<i>that purpose under CARB's source-based emissions accounting. In addition, it is not used as a tracking method for GHG emissions associated with electricity generation under CARB's accounting protocol. As such, RECs will also not be used as a tracking method for GHG emissions associated with electricity generation under PSD."</i>
	<p>This joint letter states that RECs may not be used for GHG emissions reduction purposes and that they do not confer avoided emissions value under the cap-and-trade program. This has no bearing on whether RECs are used to report delivery of the emissions profile (direct emissions) of renewable energy to customers. Direct emissions (emissions factor) of generation and avoided emissions are two different attributes. The direct emissions of renewable energy are not affected by cap-and-trade.</p> <p>We agree that RECs are not emissions reduction credits and should not be used this way. Requiring REC retirement for electricity reported as having the emissions profile of renewable energy and allowing unbundled REC procurement to be reported in PSD does not treat RECs as emission reduction credits. We also agree that RECs are not a tracking instrument for production. Indeed, the fuel type and emissions at a renewable or any other plant can be directly measured at the source and there is no need for a REC to assign attributes to a generator (e.g. for the purposes of cap-and-trade regulation). Requiring RECs for retail renewable energy delivery claims and/or allowing unbundled RECs to be included in PSD does not introduce RECs as a tracking instrument for production.</p> <p>It does not follow that because RECs are not emissions reduction credits and because they are not used to track emissions for generators, therefore they cannot be used as a tracking method for renewable energy delivery and the delivery of emissions from renewable sources.</p>
<i>Pg. 18</i>	<i>"The inclusion of unbundled RECs inflates the reported total electricity procurement for an electricity portfolio. To reconcile retail sales with an inflated total electricity procurement, retail suppliers have reduced the amount of electricity procured from unspecified or other nonrenewable sources."</i>
	Suppliers match RECs (renewable attributes) with electricity to characterize the power and verify their claim to that generation. Suppliers do not report RECs as additional power procurement and RECs do not inflate total electricity procurement. RECs may be paired with unspecified or other renewable power, and this does not represent an erroneous reduction of the amount of unspecified power or otherwise "hide" those attributes. The attributes of that power are reallocated to other suppliers and consumers, provided that there are no parties counting renewable energy without RECs. This represents the application of tracked and accounted for, specified attributes to unspecified power. Requirements can be put in place to prevent suppliers from matching unbundled RECs with power that has a dirtier profile than the default system mix (e.g. matching RECs with specified coal), which would also not produce an accounting error, but it may prevent an "unfair" distribution of generation.
<i>Pg. 19</i>	<i>"Unbundled RECs do not represent an electricity source serving California retail customers, since unbundled RECs are derived from behind-the-meter in-state generators or out-of-state generators that do not deliver electricity to a California balancing authority or from generators that separately sell the electricity as null power. Since RECs derived from renewable generators that do not deliver the underlying electricity to a California balancing authority cannot modify or adjust the emissions attributable to a California retail supplier, the procurement of unbundled RECs will not be reflected in the GHG emissions intensity."</i>
	This is incorrect. The grid is electrified using a variety of grid-connected sources and electrons cannot be tracked or traced. Electrons do not "flow" from a point of generation to a point of consumption. They are not green or brown. Where unbundled RECs are procured by a California retail supplier from a behind-the-meter, grid-connected facility, the supplier can report that as a renewable source serving its customers and it cannot be claimed/reported as a source of renewable power for consumption behind the meter (that user must report consumption of null power from the grid). Where unbundled RECs are procured from an out-of-state generator in the WECC separately from the physical power, the California supplier owning the RECs can report that as a source serving its customers in state and it cannot be claimed/reported as a source by a user of the physical power out of state (they must report consumption of null power) under every other compliance or voluntary program. Where unbundled RECs are procured

	from generators that separately sell the electricity as null power, the California supplier owning the RECs can report that as a source serving its customers and the purchaser of the null power cannot claim/report it as a renewable source. Unbundled RECs do modify the emissions attributable to a California retail supplier by changing the generation attributes of procured generation, i.e. fuel switching. They do not offset or adjust a supplier's portfolio emissions from any "actual" emissions or based on a net adjustment.
Pg. 19	<i>"Unbundled RECs do represent financial investments made by retail suppliers to comply with RPS or for voluntary purposes."</i>
	This is one of three references in the Third Proposal to RECs as financial investments (others on pg. 7 and 41 in the sample PCL). REC sales do afford renewable generators an additional revenue stream apart from electricity sales, if they choose to sell them separately, and so they can be viewed as a financial instrument providing support for renewable energy, though the combined price of the REC plus electricity is simply the price of renewable electricity. But in California (and throughout the U.S.), RECs are not merely a financial instrument, they are an accounting instrument to verify renewable energy delivery under the RPS according to the stated purpose of that program. ¹⁶ In the voluntary market, RECs are the same accounting instrument for renewable energy delivery and consumption claims above and beyond what is required by the RPS. This is specified in contracts, tracking system rules, and voluntary standards/certifications like Green-e.
Pg. 20	<i>"Staff considered [the Scope 2 Protocol] approach and found that it did not address the requirements of AB 1110. Staff concluded that REC-based emissions accounting does not provide accurate, reliable, and simple-to-understand information about the GHG emissions associated with a retail customer's electricity. The Scope 2 Protocol would not account for the emissions associated with delivered substitute electricity, which would undercount emissions associated with electricity that was purchased and delivered on behalf of a California retail supplier. Moreover, the Scope 2 Protocol would allow unbundled RECs to adjust the emissions intensity of a retail supplier's portfolio, displacing emissions associated with procured generation comprising that portfolio. Consequently, Scope 2- based emissions accounting would inaccurately characterize the emissions intensity of the electricity sources serving retail consumers."</i>
	<p>These conclusions are based on many of the inaccurate statements addressed above. The Scope 2 Protocol¹⁷ does address the requirements of AB 1110 and does represent accurate accounting of the GHG emissions associated with a retail customer's electricity for retail purchasing, provided it is not undermined or eroded by individual state regulations. The attributes of substitute electricity are appropriately assigned to non-purchasers of RECs, since the allocation of RECs determines the exclusive allocation of the renewable emissions factor to suppliers and their customers, and on whose behalf those emissions are occurring, meaning the substitute power is generating on behalf of other suppliers that are not purchasing renewable energy. There is no undercounting provided that consistent REC-based accounting is used. Again, unbundled RECs can be paired with unspecified power not because they represent some net adjustment to "actual" portfolio emissions, but because they define and verify renewable sources in a supplier's portfolio (since this cannot be demonstrated physically and cannot be claimed by the user of the null power). The market-based method in Scope 2 accounting appropriately recognizes that RECs are in fact the most accurate way to characterize the emissions intensity of renewable sources serving retail customers, whether bundled or unbundled.</p> <p>Most importantly, these inaccurate statements and conclusions by the state of California could damage the credibility of the Scope 2 Guidance in corporate and voluntary procurement in the U.S. and around the world. The Guidance is a very important document that was developed through an extremely rigorous and inclusive four-year-long open stakeholder process involving a Technical Working Group with over 230 members representing 23 countries. We strongly recommend that these statements about the</p>

¹⁶ CAL. PUB. UTIL. CODE § 399.11(a) and (e)(1).

¹⁷ Presumably referring to Sotos, M. (2015) *GHG Protocol Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard*. World Resources Institute. Available online: http://www.wri.org/sites/default/files/Scope_2_Guidance_Final.pdf.

	Scope 2 Guidance not be included in supporting documentation for future draft regulations and formal rulemaking , regardless of the state’s choice to use or not use the Scope 2 Guidance for emissions disclosure in California.
Pg. 21	<i>“Even within the context of RPS, California does not consider firmed-and-shaped imports to be equivalent to directly delivered renewables.”</i>
	<p>While this may be true, it is for different reasons than accurate accounting and reporting of delivered renewable energy to California customers. It may have instead to do with perceived impact of procurement and other goals of the RPS related to renewable energy development both in and out of state. “Does the power provide unique benefit to California” is a different question than, “what power am I getting.” But if PSD is intended to reflect delivered power that provides unique benefits to California, then the state can limit what gets reported in PSD.</p> <p>CRS has argued that the accounting should be consistent between PSD and RPS based on what each program is intended to do, disclose delivered power attributes and deliver renewable power attributes, respectively. CRS has not argued that the eligibility rules need to be consistent between RPS and PSD. Nevertheless, the accounting rules for verifying what customers are getting would still be the same, and that would have to be based on RECs for renewable energy. The Commission risks undermining the value and role of RECs, which are used in voluntary markets in California and in other markets throughout the West to advance the development of renewable energy and reduce emissions on the grid, by suggesting that RECs do not always exclusively represent all attributes of generation for retail usage claims whether bundled or unbundled. Other state policy preferences and objectives can be pursued by limiting the types and sources of RECs for different programs without challenging the integrity of the accounting instrument.</p>
Pg. 23	<i>“Staff proposes that a retail supplier’s default electricity portfolio may include the aggregated generation sources and associated GHG emissions from private contracts, rather than reporting these separately for each private contract.”</i>
	<p>This proposal allows double claiming of generation attributes from sources serving private contracts. We recommend that private contracts and differentiated electricity product attributes be removed from the default electricity portfolio disclosure and disclosed separately to the appropriate customer groups. Failing to do so does not provide customers with accurate disclosure, where the PCL received by the default customer base includes sources (attributes) that are dedicated to other specific customers and the PCL received by customers purchasing a specific mix of resources (or from individual facilities) does not reflect their product/purchase.</p>
Pg. 41	<i>Proposed PCL footnote 2: “GHG emissions from nonrenewable electricity delivered under renewable contracts are exempt from emissions disclosure if the resources were under contract prior to February 2018. Electricity resources exempt from GHG emissions disclosure as a percentage of this electric service product’s retail sales: X%.”</i>
	<p>“Nonrenewable electricity delivered under renewable contracts” is not disclosure that is simple to understand; it may be confusing without additional explanation. We recommend that the proposed PCL footnote language for grandfathered firmed and shaped procurement be revised and a brief, clear description of firmed and shaped power be provided. We would be happy to work with Commission Staff to develop such language. If our recommendation to treat firmed and shaped renewable procurements as renewable in terms of fuel type and emissions is accepted, additional disclosure describing firmed and shaped power can still be provided in a footnote at eligible renewables along with the percentage represented by firmed and shaped procurement, if that is deemed important consumer information. If the Commission decides, on the other hand, to treat firmed and shaped renewable procurements as unspecified in terms of fuel type and emissions, which would at least resolve the proposed discrepancy between fuel type and emissions, then we recommend disclosure be provided about the percentage of reported unspecified power represented by firmed and shaped renewable procurements, along with the brief description of firmed and shaped power.</p>
Pg. 41	<i>Proposed PCL footnote 5: “Unbundled renewable energy credits (RECs) represent renewable investments that do not deliver electricity to the retail supplier’s customers. Unbundled RECs are not reflected in the</i>

	<i>power mix or GHG emissions intensities above. Unbundled RECs retired as a percentage of this electric service product's retail sales: X%."</i>
	This disclosure does not accurately or sufficiently communicate what unbundled RECs are. We recommend that the proposed PCL footnote language for unbundled REC procurements be revised and a brief, clear description of RECs be provided. For example: "A renewable energy credit (REC) is 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. 'Unbundled' RECs may be procured by electricity suppliers separately from the electricity associated with those credits."

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

Sincerely,



Todd Jones
Director, Policy and Climate Change Programs