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CRS Comment on September 6, 2019 Express Terms and ISOR

Please find the comments of Center for Resource Solutions on September 6, 2019 Express Terms and Initial Statement of Reasons for Modification of Regulations Governing the Power Source Disclosure Program attached.

Additional submitted attachment is included below.

October 28, 2019

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California Energy Commission (CEC)
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Docket No. 16-OIR-05: Comments of Center for Resource Solutions on September 6, 2019 Express Terms and Initial Statement of Reasons for Modification of Regulations Governing the Power Source Disclosure Program

Mr. Scavo:

Center for Resource Solutions (CRS) appreciates this opportunity to submit comments on the September 6, 2019 Express Terms and Initial Statement of Reasons (ISOR) for modification of regulations governing the Power Source Disclosure (PSD) program. We support the PSD program, the addition of disclosure related to greenhouse gas (GHG) emissions, and Assembly Bill (AB) 1110 as it was passed and signed into law.

CRS is a 501(c)(3) nonprofit organization that has been providing renewable energy and carbon policy analysis and technical assistance to policymakers and other stakeholders in California for over 20 years. CRS also administers the Green-e® program—the leading certification for voluntary renewable electricity products in North America. Through that program, we enforce power source disclosure requirements on over 300 suppliers of certified voluntary renewable energy products across the country, including 11 investor owned utilities, municipal utilities, and community choice aggregation programs in California.

CRS worked closely with the Commission to create the renewable energy credit (REC) system. We were also on the team with KEMA to design the interim verification procedures for the Renewable Portfolio Standard (RPS) before the launch of the Western Regional Generation Information System (WREGIS). We worked collaboratively with the Commission and the Western Governors' Association on the design of WREGIS, led the committee that developed the operating procedures, and continue to serve on the Stakeholder Advisory Committee.

Through the Green-e® program, we have regular communications with Commission Staff to share verification data to ensure no double counting with the state's RPS. Over the past 20 years, we have worked with the Commission to resolve a number of very important instances of double counting, including the Commission's 2009 investigation into Southern California Edison's contracts with the Mountain View wind facilities in the San Gorgonio Pass. Our work together in these cases has strengthened the credibility of both markets.

CRS thanks the Commissioners and Commission Staff for leading the process of implementing AB 1110 since early 2017. There have been some very good outcomes, including that RECs will be required for reporting delivery of a renewable fuel type and the GHG emissions from a renewable fuel source, as proposed. But this final proposal also contains very confusing inconsistencies with the RPS and discrepancies between fuel type and emissions disclosure. These elements do not meet the criteria of "accurate" and "simple to understand" disclosure, and they may have complicating effects as the state moves toward its 2030 and 2050 goals.

The proposal represents a major change from historical best practice in terms of the kinds of renewable energy contracts that can be reported as renewable by retail suppliers and how GHG emissions are assigned to them. On the whole, it will increase the cost of purchasing renewable electricity through a retail supplier, make it more difficult for customers purchasing from retail suppliers to achieve climate goals, and ultimately shift demand for renewable energy away from California retail suppliers. Below, we provide detailed comments on the Express Terms, the Initial Statement of Reasons (ISOR), and Documents Relied Upon and Supporting Materials.

Our most important comment is that the explanation provided in the ISOR for proposed reporting limitations on unbundled RECs and firmed-and-shaped contracts is incorrect and potentially harmful. Specifically, Commission Staff argues that allowing unbundled REC procurement to be reported in the fuel mix and GHG emissions intensity would produce inaccurate disclosure, suggesting that unbundled products are not valid renewable energy procurement options (not just that they are ineligible for the PSD program). We disagree and our strongest recommendation is that the Commission provide a final statement of reasons with a more credible and complete explanation of the state's approach to accounting for retail electricity and which does not undermine the credibility of other markets and market instruments, accounting regimes, and regulatory and voluntary programs that drive renewable energy development and climate action.

Comments on Express Terms

REC Requirement for Reporting Renewable Energy

CRS expresses strong support for Sec. 1393(b)(1) (pg. 12) and 1393(c)(1)(B) (pg. 13) of the Express Terms requiring procurement of associated RECs in order to report both the fuel type and GHG emissions profile of an eligible renewable generator, and that purchases from renewables without the associated RECs must be classified as unspecified. These provisions are absolutely critical to prevent double counting and ensure the integrity of retail disclosure of renewable energy.

Removal of Resubmittal Requirement for REC Sales After Reporting

A requirement that retailers must submit an amended annual report that reclassifies electricity associated with RECs that are subsequently resold after reporting as unspecified power (Sec. 1393(a)(2) in the February 20, 2019 Draft Regulations) has been removed in the September 6, 2019 Express Terms. Removal of this requirement, absent any other requirement that the RECs associated with reported renewable energy must be retired, creates a risk of double counting, which is prohibited per Sec. 398.4(k)(2)(E) of AB 1110. In the case that a retail supplier sells off RECs after reporting without amending their reports and power content labels (PCL) under PSD, the same megawatt-hour (MWh) of renewable generation may be sold and disclosed to different customers. The U.S. Federal Trade Commission (FTC) has addressed this specific scenario as deceptive:

> "[The Commission] did warn that power providers that sell null electricity to their customers, but sell RECs based on that electricity to another party, should keep in mind that their customers may mistakenly believe the electricity they purchase is renewable, when legally it is not. Accordingly, it advised such generators to exercise caution and qualify claims about their generation by disclosing that their electricity is not renewable."[1]

Options to correct this include the following.

1. Re-insert the resubmittal and report amendment requirement that was at Sec. 1393(a)(2) of the February 20, 2019 Draft Regulations.

RECs sold off after generation and reporting, while they could not be reported in PSD under the current proposal, could still be used for RPS compliance or in the voluntary market by a different supplier. The California Air Resources Board (CARB) acknowledges this risk of double counting: "While ARB recognizes the emissions profile of the imported electricity, REC retirement is needed to assure other

[1] U.S. Federal Trade Commission (FTC). (February 5, 2015). Letter to Sheehey Furlong & Behm P.C. regarding Petition to Investigate Deceptive Trade Practices of Green Mountain Power Company In the Marketing of Renewable Energy to Vermont Customers. p.3-5. http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2015/20150205_docket-na_letter.pdf

GHG accounting programs that may assign emission attributes to RECs do not double count any avoided emissions."[2]

2. Add a requirement that retail suppliers must demonstrate REC retirement with the option to true up older labels where RECs were held for RPS compliance.

Unless and until RECs are properly retired in WREGIS, they may be resold, creating a risk of double counting where the renewable generation has been disclosed to customers. The difference in reporting timeframes between the RPS (with three-year compliance periods) and PSD (annual reporting) does not preclude a requirement requiring REC retirement in PSD or necessitate that renewable energy be reported in the year of generation rather than the year of REC retirement, where different. Reporting entities have the option to make annual retirements of RECs for RPS in order to report deliveries of renewable energy for PSD. But to address the effect of banking or holding RECs for RPS compliance, where this is necessary, reporting entities can be given 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 percentage could change and that this is only permitted for the RPS component of the PCL (not all renewable energy).

Reporting renewable energy in the year of REC retirement would not affect the accuracy of disclosure: "Pub. Res. Code § 25741(a) provides: [...] Subject to criteria adopted by the commission, electricity generated by an eligible renewable energy resource may be considered 'delivered' regardless of whether the electricity is generated at a different time from consumption by a California end-use customer."[3] While non-renewable generation will still be reported in the year of generation, this inconsistency is *de minimis* relative to the risk of double counting. WREGIS does not currently issue certificates for non-renewable resources. RECs are nonetheless the most accurate accounting tool for generation attributes and double counting may occur without requiring REC retirement for renewable energy disclosure. All-generation certificate tracking though WREGIS may nevertheless be pursued as a solution to facilitate the most precise accounting of delivered power based on certificate retirements and cancellations for all resources (see below for further discussion).

<u>Attribute Retention for All Renewable Generation</u>

Since the September 6, 2019 Express Terms require that RECs be retained only for "eligible renewable resources," it is possible that retail suppliers could report delivered hydropower and other non-eligible renewable power as having the GHG emissions profile of the renewable generator without retaining the non-power attributes or RECs, where issued now or in the future. In order to avoid double counting in other programs that may result in that case, we recommend that the Commission require suppliers

[2] MRR FSOR 2011, pg. 108. Note: it is the direct emissions that are potentially double counted.
[3] CPUC Decision 08-08-028, Sec. 4.1.3.1, pg. 31, Footnote 64.

to retain the non-power attributes and any RECs associated with power that is assigned the specified emissions factor of a renewable generator.

Ineligibility of Unbundled RECs (Portfolio Content Category [PCC] 3 Renewables)

The Commission can exclude certain types of transactions from PSD to meet certain program objectives or to achieve accurate, reliable, and simple to understand disclosure. Unbundled REC (PCC 3) procurements represent legal contractual procurements of fuel type and emissions from renewable generators to meet retail sales and can be used in accurate, reliable, and simple to understand PSD, contrary to the explanation provided in the ISOR (see *Comments on the ISOR*). The Commission should therefore clarify the program objectives that would not be met by allowing suppliers to report unbundled REC procurements as renewable energy.

That said, the categorical exclusion of unbundled RECs for PSD in Sec. 1393(a)(1) (pg. 11) of the Express Terms is unnecessary and inadvisable.

First, it infringes on the property rights[4] of REC owners and creates problems for energy contracts. It violates the state's REC definition—RECs are defined as including "all renewable and environmental attributes"[5]—which does not specify that inclusion of these attributes requires a power contract or physical power delivery from the same facility. If unbundled REC owners cannot report ownership of renewable generation attributes and make retail product claims, this proposal may infringe on their contractual rights, under California law and per the terms of use of WREGIS[6] and bilateral contracts for power and attributes. This may lead to disputes between parties that may need to be resolved in court.

Second, it is inconsistent with the RPS and generally challenges the integrity of the REC accounting instrument, which may have negative consequences for renewable energy markets. See *Inconsistency between PSD and the RPS* for further discussion.

Third, it creates undesirable and less impactful procurement outcomes by reporting entities. CRS is aware of at least one supplier that is already moving to replace unbundled REC procurements with

[4] See PacifiCorp. (April 8, 2010). Comments of PacifiCorp on the March 11, 2010 Preliminary Draft California Renewable Electricity Standard Regulations. https://ww3.arb.ca.gov/energy/res/comments/predraftreg/pacificorp-white-04-08-2010.pdf
See U.S. Federal Trade Commission (FTC) (November 27, 2007). Guides for the Use of Environmental Marketing Claims; Carbon Offsets and Renewable Energy Certificates; Public Workshop. Announcement of public workshop; request for public comment. Federal Register. Vol. 72, No. 227. Pg. 66095. Footnote 9. https://www.govinfo.gov/content/pkg/FR-2007-11-27/pdf/FR-2007-11-27.pdf
See Jones, T. *et al.* (2015). *The Legal Basis of Renewable Energy Certificates*. Center for Resource Solutions. https://resource-solutions.org/wp-content/uploads/2015/07/The-Legal-Basis-for-RECs.pdf. Specifically, see Footnotes 12, 25, 27, 28, 32, and 34.
See U.S. Commodity Futures Trading Commission (CFTC). (August 13, 2012). Further Definition of "Swap," "Security-Based Swap," and "Security-Based Swap Agreement"; Mixed Swaps; Security-Based Swap Agreement Recordkeeping; Final Rule. Federal Register. Vol. 77, No. 156. pg. 48233-48235. https://www.govinfo.gov/content/pkg/FR-2012-08-13/pdf/FR-2012-08-13.pdf
[5] CAL. PUB. UTIL. CODE § 399.12(h)(2).
[6] 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.

bundled contracts for large, old, non-Low-impact Hydropower Institute (LIHI) certified hydropower because it can be reported as zero-emissions under this proposal and in order to keep program costs low. This is a bad outcome for the advancement of renewable energy development and emissions reductions. The Commission cannot honestly defend a decision to exclude unbundled RECs on the basis of their lack of impact on new development[7] where the outcome is a shift to old, large, unsustainable hydropower.

Finally, unbundling has benefits for customers, the state, and renewable energy development. It makes markets larger and brings costs down, which is good for demand and scaling renewable energy production. These benefits have been well documented, particularly in California Public Utilities Commission (CPUC) Decisions 08-08-028, 10-03-021, and 11-01-025. One study indicates that the gains from trade that result when states allow load-serving entities (LSEs) to meet renewable targets using unbundled RECs are approximately $4.3 billion per year. These cost savings correspond to a 13.4% reduction in annualized cost of generation operations and new investment in generation and transmission. The same study found that increasing unbundled REC trading flexibility does not necessarily result in either higher transmission investment costs or a substantial impact on CO_2 emissions.[8]

Alternative options for treatment of unbundled RECs (PCC 3 renewables) in PSD include the following.

1. Allow unbundled RECs to be included in renewable fuel type percentages and GHG intensity calculations, by allowing unbundled RECs to be paired with unspecified power or other renewable power in order to determine the fuel type and emissions in accordance with the RECs.

Explanations provided by Commission Staff to date and in the ISOR for the exclusion of unbundled RECs—e.g. that inclusion would not produce accurate accounting and would be inconsistent with the Mandatory Reporting Regulation (MRR)—are not sufficient. See *Comments on the ISOR*.

2. Allow only unbundled RECs that were generated in California or that come from facilities directly delivering into California (i.e. that were imported bundled) and that are not from generation consumed behind-the-meter (BTM) to be paired with unspecified or specified renewable procurements in order to determine the fuel type and emissions in accordance with these RECs.

[7] See ISOR, pg. 12.
[8] A.P. Perez, E.E. Sauma, F.D. Munoz, and B.F. Hobbs, "The Economic Effects of Interregional Trading of Renewable Energy Certificates in the WECC," The Energy Journal, 37(4), 2016, 267-296. Executive Summary: https://www.iaee.org/ej/ejexec/ExecSum14-177.pdf.

If the Commission prefers not to allow unbundled REC imports, e.g. to establish the same boundaries for delivery in PSD as the MRR, the state can allow unbundled RECs to be reported in the power mix and GHG emissions intensities as long as the power is directly delivered in the boundary, and in that case, the boundaries of PSD and the MRR would be the same. The state would simply allow for renewable energy trading within the boundary, which provides flexibility to suppliers that may over- or under-procure (meaning it is good for long-term renewable contracts) and lowers the cost of renewable energy for customers. Conversely, not allowing this in-boundary unbundled REC procurement to be reflected in PSD would restrict trading within the state, limiting the value of certain long-term contracts and making renewable energy more expensive for suppliers and customers.

If there is a concern regarding double counting of RECs from BTM generation,[9] RECs from generation consumed BTM can be ineligible. But unbundled RECs derived from generators that deliver electricity to a California balancing authority can be allowed from both non-BTM generation and excess generation to the grid from BTM systems.

Furthermore, if the Commission is concerned about suppliers applying unbundled RECs to specified power contracts in order to change the fuel type and emissions profile of contractually specified generation purchased for retail sales,[10] it can limit use of unbundled RECs in PSD to unspecified power or as-clean-or-cleaner resources, as is common practice in the voluntary market.

3. Pursue all-generation certificate tracking in WREGIS for certificate-based PSD that is consistent across the West and includes a precise calculation of residual mix.

WREGIS could be transformed into an all-generation tracking system and used for PSD in the same way that the New England Power Pool Generation Information System (NEPOOL-GIS), the PJM Generation Attribute Tracking System (PJM-GATS), and the New York Generation Attribute Tracking System (NYGATS) are all used currently in the Northeast and Mid-Atlantic states. 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 it can use all-generation tracking systems to account for imports. All-generation certificate tracking would ensure no double counting for retail electricity products across the WREGIS footprint without affecting source-based accounting for cap-and-trade.

<u>Treatment of New (Post-2018) Firmed-and-shaped Procurements (PCC 2 Renewables)</u>

Like the exclusion of unbundled RECs, the proposed treatment of new (post-2018) firmed-and-shaped procurements in the GHG emissions intensity calculation also infringes on the property rights of REC

[9] See ISOR, pg. 43-4.
[10] See ISOR, pg. 16.

owners and creates problems for energy contracts. It violates the state's REC definition, which does not exclude the direct emissions associated with generation. In fact, the CPUC has identified "lower, low, or no polluting emissions from the generation itself" as being the "first and foremost" attribute that is included in a REC.[11]

Beyond these legal and accounting challenges and their potential market consequences, the proposed treatment of new firmed-and-shaped contracts results in factually inaccurate and inescapably confusing disclosure. There is a fundamental falsity and consumer issue with a reporting methodology that creates a discrepancy between fuel type and emissions. The emissions of a customer's power sources cannot be from different power sources, and renewable energy cannot have non-renewable emissions or other non-renewable attributes. This does not meet the simplest definition of "accurate" and "simple to understand" disclosure.

The proposed treatment of firmed-and-shaped products may also result in "double counting" and overreporting of emissions. The same emissions from substitute generation reported by a California supplier purchasing a firmed-and-shaped product under this proposal are included in the emissions reported by other entities purchasing power in the region that do not own RECs or have a contract for power from the renewable facility. The same double counting can occur where California suppliers that purchase unbundled RECs are unable to report the GHG emissions associated with the renewable generator in PSD while an entity purchasing power from that renewable generator potentially reports the same emissions from the same non-renewable resources, following widely accepted accounting best practice for "null" power. Commission Staff state in the ISOR that, "overcounting [...] is a possibility when considering the broader Western Interconnection. However, this would not result in overcounting within California."[12] But AB 1110 requires the Commission to, "ensure that there is no double-counting of the greenhouse gas emissions or emissions attributes associated with any unit of electricity production reported by a retail supplier for any specific generating facility or unspecified source located within the Western Electricity Coordinating Council when calculating greenhouse gas emissions intensity,"[13] not only that there is no double counting in California.

Alternative options for treatment of post-2018 firmed-and-shaped contracts (PCC 2 renewables) in PSD include the following.

1. Classify all (existing and new) firmed-and-shaped procurements as eligible renewable in the fuel type and as having the emissions factor of the renewable resource in the GHG emissions intensity.

[11] CPUC Decision 08-08-028, Sec. 4.1.2.3.2, pg. 17.
[12] ISOR, pg. 43.
[13] AB 1110 Sec. 398.4(k)(2)(E).

There is no accounting problem in this case. Explanations provided by Commission Staff to date and in the ISOR for the proposed treatment of new (post-2018) firmed-and-shaped procurements in the GHG emissions intensity calculation are not sufficient. See *Comments on the ISOR*. It would correct the factual discrepancy produced by the proposed treatment and prevent double counting/overreporting. It would also be consistent with the RPS. See *Inconsistency between PSD and the RPS* below for further discussion.

2. If not, require that firmed-and-shaped procurements be reported based on the substitute power in both fuel mix and GHG emissions to at least resolve the factual discrepancy between fuel type and emissions.

We do not recommend this over option 1. It would be inconsistent with the RPS and less defensible in terms of the realities of renewable energy markets. But it would still be an improvement upon and less confusing than the proposed treatment. Inconsistency with the RPS can hardly be used to explain why this option is not preferred over the proposed treatment of PCC 2 renewables given the proposed exclusion of PCC 3 renewables.

Inconsistency between PSD and the RPS

Under this proposal, PCC 2 renewables have no carbon value and PPC 3 renewables are not reflected at all. Because of this discrepancy between PSD and the RPS, this proposal causes confusion about how and what renewable energy can be delivered to customers. This inconsistency will not make PSD "simple to understand" and does not meet the requirements of AB 1110.

Both PSD and RPS verify renewable energy as a percent of retail electricity sales.[14] Distinctions between classifications of RECs under the RPS based on contractual arrangements and delivery characteristics are not relevant to credible and accurate PSD. Despite compliance limitations for certain PCCs, all classifications of RECs under the RPS, including unbundled RECs (PCC 3), verify delivery of renewable energy as a percent of retail sales of electricity. As a result, while there may be slight differences between PSD and RPS reporting due to differences in reporting timeframes, there should not be categorical differences in terms of eligibility based on type of contract.

AB 162 (2009 Ruskin) states:

> "This bill would provide that compliance by a local publicly owned electric utility with the program under which retail suppliers of electricity disclose accurate, reliable, and simple to understand information on the sources of energy that are used to provide electric service, is compliance with the renewables portfolio standard reporting requirements."[15]

[14] CAL. PUB. UTIL. CODE § 399.11(a) and (e)(1).
[15] Bill text available at: http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200920100AB162.

Additionally, nothing in AB 1110 requires the Commission to limit RPS-eligible procurement options in PSD or to assign GHG emissions to these procurements other than those which match the renewable fuel type.

If it would be inaccurate to recognize RPS-eligible procurement as renewable in PSD, this proposal and ISOR undermine the credibility of the RPS. One might ask: what do PCC 2 and PCC 3 mean if not renewable energy that is delivered to retail customers, and what does it mean that PCC 2 is renewable but does not carry the GHG profile of renewable energy? Given that one purpose of the RPS is to help, "[meet] the state's climate change goals by reducing emissions of greenhouse gases associated with electrical generation,"[16] is the RPS meeting its goals with PCC 2 and PCC 3?

We disagree with Commission Staff[17] that CARB's MRR is in conflict with the RPS (and PSD that is consistent with the RPS). The MRR does not account for the GHG intensity of retail sales. See *Comments on the ISOR*. There are also important distinctions between GHG accounting for planning targets under Integrated Resource Planning (IRP) and GHG accounting for PSD. Purchases of unbundled RECs, for example, should not be included in the purchases covered by GHG targets for IRP because IRP is concerned only with owned and generated or purchased bundled electricity to serve load and associated emissions attributes. PSD, on the other hand, should report every purchase of power for retail sales and should not include sales of generation or attributes not delivered to retail load. The AB 1110 methodology should include trading of renewable attributes that happen after IRP. Both of these can be distinguished from mandatory GHG reporting under the MRR, which does not include transactions among suppliers.

In fact, the RPS is the only other program in the state that verifies historical generation sources used for retail electricity sales. While compliance is not measured in tons of GHGs, emissions and fuel type cannot be decoupled for accurate PSD. The state should have consistent accounting for retail transactions in consumer-facing programs. A PCL that shows a different renewable energy percentage than the supplier's RPS compliance amount is confusing to both customers and state legislators.[18]

Inconsistencies within the Proposal related to REC Accounting

The proposal is inconsistent regarding how attributes are tracked and delivered to customers. First, RECs are required for both fuel type and emissions reporting,[19] but unbundled RECs cannot be reported[20]. If, "RECs are needed to substantiate retail claims on renewable generation to avoid the

[16] CAL. PUB. UTIL. CODE § Sec. 399.11(b)(4).
[17] See Notice of Proposed Action pg. 5 and ISOR pg. 41, for example.
[18] See, for example, minute 2:27:08-2:28:14 of the July 2, 2018 Joint Legislative Hearing on *Decarbonizing the Electric Grid: Tracking the GHGs in Our Electrons*. Video recording available here: https://www.senate.ca.gov/media/joint-hearing-joint-legislative-committee-climate-change-policies-senate-energy-utilities-communications-assembly-u-20180702/video.
[19] Sec. 1393(b)(1) (pg. 12) and 1393(c)(1)(B) (pg. 13) of the Express Terms.
[20] Sec. 1393(a)(1) (pg. 11) of the Express Terms.

potential for double-counting,"[21] and CARB agrees,[22] then the RECs include the fuel type and emissions factor attributes, whether bundled or unbundled. Therefore, unbundled RECs can and should be included in PSD. The Commission can also dismiss the argument that RECs do not convey the emissions factor attribute, which has been used to support both the exclusion of unbundled RECs and the treatment of firmed-and-shaped contracts in the GHG intensity.[23]

Second, a renewable fuel type can be reported for firmed-and-shaped procurements based on the RECs[24], while other unbundled RECs procurements cannot be reported. The proposed treatment of firmed-and-shaped procurements implies that the REC conveys the fuel type attribute, in which case all unbundled RECs should be eligible in fuel type reporting. If a firming-and-shaping contract, "represents a qualitatively different form of procurement than that of unbundled RECs," because retail suppliers are purchasing the RECs and underlying electricity from a renewable generator,[25] this suggests that the contract for power, not the REC and not the power itself, is required to report fuel type. Still, the proposed treatment of firmed-and-shaped procurements in the GHG emissions intensity suggests that neither a contract for power nor the REC are sufficient and reporting specified emissions is based on the physical delivery of power. It is unclear and the Commission should explain why the reporting rules are different for different products and different attributes, when in fact there is no physical delivery of fuel type or emissions and fuel type determines emissions.

Third, this proposal allows publicly owned utilities (POUs) to bank excess renewable generation for future use within 20 years,[26] while again unbundled RECs cannot be reported. Banking excess renewable generation for use in future years is unbundling attributes from delivered electricity. The fact that the physical power is not delivered with the attributes at the same time does not appear to affect the accuracy of retail disclosure in this case. Yet it does in the case of unbundled RECs and firmed-and-shaped products for the GHG emissions intensity. If this adjustment for POUs is permitted, it is unclear why suppliers should not be able to similarly trade renewable energy among themselves in a particular reporting year. Furthermore, the difference between RPS compliance and PSD reporting timeframes should not be an issue, since this can be resolved by using similar temporal transfers of attributes separately from delivery of electricity.

PCL Footnote Language

Proposed language for "Footnote 1" describes unbundled RECs as "renewable investments that do not deliver electricity to the retail supplier's customers."[27] This is incorrect and potentially dangerous.

[21] ISOR, pg. 19.
[22] See MRR FSOR 2011, pg. 108.
[23] See ISOR, pg. 17, 18, for example.
[24] Sec. 1393(b)(1) (pg. 12) and 1393(c)(1) (pg. 13) of the Express Terms.
[25] ISOR, pg. 18.
[26] Sec. 1393(d)(2) (pg. 16) of the Express Terms.
[27] Sec. 1394 (l)(1) (pg. 26) of the Express Terms.

Unbundled RECs are not "investments." They do not involve expectations of profit that would bring them within the definition of an investment contract. Describing them as investments suggests levels of oversight for investment contracts and perhaps a basis for the U.S. Securities and Exchange Commission (SEC), Commodity Futures Trading Commission (CFTC) or other federal regulatory agencies to assert jurisdiction over them. The CFTC has determined and stated very clearly that RECs are non-financial commodities.[28] Beyond that, describing RECs as investments could cause customer confusion and lead to "boiler room"[29]-type deceptive marketing practices.

We recommend replacing the first two sentences of the proposed language for Footnote 1 with the following:

> "A renewable energy credit (REC) is a tracking instrument and certificate of proof that electricity was generated and delivered by an eligible renewable energy resource, and it includes all renewable and environmental attributes of that generation. 'Unbundled' RECs are procured by electricity suppliers separately from the electricity associated with those credits."

This language is taken directly from the existing REC definition at CAL. PUB. UTIL. CODE § 399.12(h)(1) and (2). CPUC Decision 08-08-028 adds that RECs represent proof that electricity "was delivered for consumption by California end-use retail customers"[30] This could be added as well.

Comments on the ISOR

The ISOR could have profound impacts in itself, because of California's leadership role. It includes many different explanations for exclusion of unbundled RECs and the treatment of firmed-and-shaped contracts. We respond to each of them below. But the central argument appears to be that physical delivery of power from a renewable resource is required for accurate retail disclosure.[31] There is a fundamental problem with that, and with the assertion that bundled power contracts somehow represent physically delivered renewable electricity, since the type of power any retail customer is receiving can only be determined contractually and the emissions characteristics of power do not travel through the grid. There are large sections of the country that sell and disclose delivery of specified power to retail consumers using certificates that are separate from wholesale power purchases. The current language in the ISOR suggests that these widely adopted methods for retail disclosure are inaccurate. We do not believe it is the intention of the Commission to effectively discredit markets in PJM, New York, and the New England Power Pool (NEPOOL), all of which operate in this "unbundled" way.

[28] Commodity Futures Trading Commission (CFTC). (August 13, 2012). *Further Definition of "Swap," "Security-Based Swap," and "Security-Based Swap Agreement"; Mixed Swaps; Security-Based Swap Agreement Recordkeeping; Final Rule*. Federal Register. Vol. 77, No. 156. pg. 48233-48235, 48317. https://www.govinfo.gov/content/pkg/FR-2012-08-13/pdf/FR-2012-08-13.pdf
[29] For a definition and description of "boiler-room" activities, see Jones, T. (September 2, 2014). *Protecting Carbon Markets from Boiler Room Activities: Overview and Recommendations for Market Participants*. Center for Resource Solutions. https://resource-solutions.org/wp-content/uploads/2015/07/Protecting-Carbon-Markets-Summary.pdf.
[30] CPUC Decision 08-08-028, Sec. 4.2 pg. 35.
[31] See Notice of Proposed Action, pg. 6; ISOR, pg. 4, 11, 12-13, 16, 18, and 41; Third Proposal, pg. 4, 7, 8, 12, 18, and 19.

We have also provided examples of how the requirement to bundle attributes with power (either demonstration of physical delivery from a renewable facility or just a bundled contract) is inconsistently applied, both within the proposal and across California's programs.

Once the Commission abandons the idea that specified power is physically delivered to grid customers, there is no distinction between energy contracts and RECs for tracking, or between bundled and unbundled procurements for accurate PSD.

The explanation in the ISOR for exclusion of unbundled RECs and the treatment of firmed-and-shaped contracts is not only incorrect and inconsistent. It is potentially harmful. Beyond unbundled RECs, the ISOR also undermines the credibility of virtual power purchase agreements (VPPAs), firmed-and-shaped renewable power, and all retail renewable energy and REC programs that are not bundled power contracts. As we describe below, these unbundled purchasing mechanisms are important drivers of renewable energy development. In fact, they are associated with the majority of renewable capacity additions in recent years. The state puts all of that investment and development at risk with this ISOR.

We appreciate Commission Staff's statement that, "these determinations apply only to the PSD Program," and, "are not meant to assess the environmental benefits of unbundled RECs procured in good faith for RPS compliance or for voluntary purposes."[32] However, some might argue that Commission takes an implicit position on the credibility of unbundled RECs based on the explanation in the ISOR and the materials referenced and documents relied upon, some of which relate directly to corporate GHG accounting and voluntary purchasing.

Specifically, we recommend removing the following 14 explanations for proposed reporting limitations on unbundled REC and firmed-and-shaped procurements (paraphrased from the ISOR), each of which consists of one or more individual statements in the ISOR (identified in the footnotes). We ask that the Final Statement of Reasons (FSOR) explain any decision to limit reporting for unbundled RECs and firmed-and-shaped contracts by citing objectives for PSD other than accurate accounting. For example, the Commission could choose to limit PSD to power that can be physically delivered to the state in order to match the boundaries of the MRR. But retail disclosure is still contractual in nature, the physical electricity still conveys no information about source, and unbundled RECs (whether or not they can be reported in this program) still represent an accurate retail transaction of renewable energy.

1. *Unbundled RECs are not electricity.*[33]

[32] ISOR, pg. 13.
[33] See Notice of Proposed Action, pg. 6; ISOR, pg. 4, 11, 12-13, 16, 18, and 41; Third Proposal, pg. 4, 7, 8, 12, 18, and 19.

This is true, and neither are bundled power contracts. The PSD program is intended to report the sources of electricity. Physical electricity cannot be used to determine the source of electricity. The electricity physically delivered to grid-connected customers will be generated by a mix of local resources, even in the case that the supplier has a contract for power with a renewable generator. Contractual delivery and allocation of specified generation to customers (i.e. determining the fuel mix and emissions of a retail portfolio) is nevertheless possible and beneficial.[34] The state of Virginia, located in the PJM Interconnection, recently recognized:

> "it is not possible to direct specific types of energy (i.e., renewable electrons) to specific customers on an interconnected electric grid such as PJM. The physics of the electric grid make it impossible for any load serving entity ('LSE') [...] to ensure that any customer receives 'around the clock' renewable energy. That is, all of [an LSE's] customers physically receive a mix of energy types (renewable and non-renewable electrons) based on the customer's location and the generation mix providing service to the grid at a given time. The question of whether an offering is 'electric energy 100 percent from renewable energy' [...], therefore, must be a function of offsetting customer load on the grid with supply from renewable resources over a specified period of time."[35]

To that end, sourcing electricity and unbundled RECs from the same grid region is functionally equivalent to sourcing electricity and RECs from a single grid-connected renewable facility. Neither demonstrates physical delivery of electricity from a renewable source to customers on a shared grid. Unbundled RECs should not be excluded from reporting on that basis.

Although suppliers purchasing unbundled RECs must also purchase power from different sources,[36] the RECs verify the transaction of renewable generation to serve a supplier's retail sales and the attributes of the power purchased and otherwise reported are allocated to non-purchasers of renewable energy. The Commission can limit use of unbundled RECs to unspecified or as-clean-or-cleaner purchases. The same general accounting occurs in the case of bundled procurement of renewable energy—contracts for electricity can also be reallocated to different consumers without affecting generation or grid composition.

AB 1110 requires that, "the portion of annual sales derived from unbundled renewable energy credits shall be included in the disclosures" and that the Commission determine the format.[37] It does not state or indicate that the historical lack of distinction between unbundled and bundled renewable energy on the PCL affects the accuracy of PSD.[38] Differentiation of unbundled RECs in a separate PCC and limitations on use for compliance under the RPS also does not indicate that they are less valid than other PCCs for verifying delivery of renewable energy as a percent of retail sales of electricity.[39]

[34] See CPUC Decision 08-08-028, Footnote 64.
[35] Virginia State Corporation Commission, Final Order PUR-2019-00118, pg. 16.
[36] See ISOR, pg. 4 and 16, for example.
[37] Sec. 398.7(h)(7) of AB 1110.
[38] See ISOR, pg. 4.
[39] See CPUC Decision 10-03-021, Sec. 4.5, pg. 30.

2. RECs do not convey GHG emissions benefits.[40]

RECs are defined very clearly in California,[41] the CPUC has clarified that they do convey the GHG emissions benefits of renewable energy in different decisions,[42] and reducing GHG emissions from the electricity sector is an explicit intent of the RPS.[43] The RPS program could not reduce emissions if the emissions rate of renewable energy did not follow the fuel type and the REC. RECs convey GHG emissions benefits in energy contracts across markets. RECs are also used to convey the GHG emissions profile of renewable energy in the state's Low-carbon Fuel Standard (LCFS) program. In that program, unbundled RECs can be used as a part of book and claim accounting to determine the carbon intensity of electricity as a transportation fuel.

Finally, disaggregating the GHG emissions rate from other generation attributes included in the REC would create discrepancies between the fuel type and emissions benefits that, as discussed earlier, would be factually inconsistent (e.g. RPS customers could report using wind power but not power with the emissions intensity of wind power) and damage the integrity of voluntary and compliance renewable energy programs.

In its Decision 08-08-028, the CPUC stated:

> "The REC is more than a counter. Other than certain specified exceptions, the REC carries 'all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource. . .' underlying it. First and foremost, those attributes include lower, low, or no polluting emissions from the generation itself, and independence from the use of fossil fuels for the generation."[44]

The remainder of the Decision focuses on the avoided emissions attribute, which are, "clearly a component of the REC. But including this benefit in the REC should not result in the creation of any emissions offsets connected with the REC if the REC is retired for RPS compliance purposes."[45]

3. PSD and RPS are different programs serving different purposes.[46]

As discussed already, PSD and RPS both verify renewable energy as a percent of retail electricity sales.[47] It is unclear how reporting eligible renewable procurement to meet retail sales under the RPS could be inaccurate PSD. AB 162 (2009) specifically provides that compliance with PSD is compliance with the

[40] See ISOR, pg. 17 and 18.
[41] See CAL. PUB. UTIL. CODE § 399.12(h)(2).
[42] See CPUC Decision 08-08-028.
[43] See CAL. PUB. UTIL. CODE § 399.11(b)(4).
[44] CPUC Decision 08-08-028, Sec. 4.1.2.3.2, pg. 17.
[45] CPUC Decision 08-08-028, pg. 23
[46] See ISOR, pg. 18, 41, 43, and 44.
[47] CAL. PUB. UTIL. CODE § 399.11(a) and (e)(1).

RPS reporting requirements.[48] Finally, we do not believe that the MRR and the RPS are in conflict. See below for further discussion of consistency with the MRR.

4. *RECs do not reduce emissions and cannot be used as offsets.*[49]

We are not suggesting that RECs be used in this way for either the cap-and-trade or the PSD program. This explanation in the context of PSD generally conflates avoided grid emissions with the direct emissions factor of renewable generation. According to the state, RECs track both. But only the direct emissions factor of generation is relevant to PSD and AB 1110. We fully acknowledge that the avoided grid emissions conveyed by RECs are not equivalent to GHG emissions reductions or offsets and should not be used to adjust the GHG emissions of electricity portfolios. We further acknowledge that net avoided emissions on the grid associated with renewable energy generation are zero in California due to the cap on emissions from the electricity sector. But this is not an explanation for why RECs (unbundled or otherwise) do not verify the use of electricity with the direct emissions profile of a renewable resource to serve retail sales, which may lower a supplier's reported emissions under PSD.

5. *Null power is not necessarily assigned emissions in other states.*[50]

RECs are used throughout the West. We are not aware of any existing or proposed regulatory or voluntary program that allows null power to be reported as either a renewable fuel type or having the emissions profile of a renewable generator. That such a program could hypothetically exist (while programs that assign emissions to null power actually do exist) should not dictate reporting rules. Such a program would violate FTC Guidance for marketing renewable energy:

> "By selling RECs, a company has transferred its right to characterize its electricity as renewable. Accordingly, the FTC's Green Guides advise that, if 'a marketer generates renewable electricity but sells renewable energy certificates for all of that electricity, it would be deceptive for the marketer to represent, directly or by implication, that it uses renewable energy.' See 16 C.F.R. § 260.15(d). […] [The Commission] did warn that power providers that sell null electricity to their customers, but sell RECs based on that electricity to another party, should keep in mind that their customers may mistakenly believe the electricity they purchase is renewable, when legally it is not. Accordingly, it advised such generators to exercise caution and qualify claims about their generation by disclosing that their electricity is not renewable."[51]

The CPUC also recognizes that system owners cannot make "green claims" about their generation without RECs.[52]

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[48] See full bill text available at: http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200920100AB162.
[49] See ISOR, pg. 17; MRR FSOR 2011, pg. 110, 111.
[50] See ISOR, pg. 16, 43; MRR FSOR 2011, pg. 111.
[51] U.S. Federal Trade Commission (FTC). (February 5, 2015). Letter to Sheehey Furlong & Behm P.C. regarding Petition to Investigate Deceptive Trade Practices of Green Mountain Power Company In the Marketing of Renewable Energy to Vermont Customers. p. 3-4. http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2015/20150205_docket-na_letter.pdf
[52] CPUC Decision 07-01-018, pg. 18, 27-8.

But it is worth noting that the same potential for null power to be counted as renewable in another hypothetical program (double counting of renewable MWh) did not prevent California from allowing unbundled RECs to be used for compliance under the RPS. If the state can be confident that other states will not double count renewable MWh based on the underlying electricity associated with unbundled RECs used for compliance with the California RPS, or that it can effectively prevent these RECs from being used for compliance in California, then it should be equally confident of this where unbundled RECs are reported under PSD.

Furthermore, as discussed earlier, where the null power is appropriately assigned emissions in other states, this proposal (by not allowing the unbundled REC to be counted in California) would result in overreporting or double counting of emissions.[53]

Again, all-generation certificate tracking in WREGIS would provide the, "reciprocal accounting regimes across the rest of the Western Interconnection" called for by Commission Staff.[54] However, this has not been pursued as a solution for PSD and implementation of AB 1110. Regardless, the lack of such a tool is not a credible argument in support of the current proposal.

6. *PSD must be consistent with the MRR, which does not recognize unbundled RECs or RECs associated with firmed-and-shaped imports for GHG reporting.*[55]

Recognizing unbundled RECs and RECs associated with firmed-and-shaped imports for GHG reporting in PSD would not contradict the MRR, because the MRR is not a methodology for calculating GHG emissions from retail electricity portfolios. The focus of the MRR is: "direct, source-based emissions associated with electricity that is directly delivered."[56] This is distinctly not the case for the GHG reporting required for PSD under AB 1110.

The source-based emissions associated with the generation of electricity that is located or meeting physical load in California may be different from the emissions associated with the resources contracted to meet physical load for resource planning (which should not include unbundled RECs, for example), which may yet be different from the emissions associated with retail sales of electricity, which should include all purchases. While all three of these numbers may be attributed to California, only one can be attributed to retail sales or customers in California, which cannot be source-based and should reflect exclusive ownership of tracked and verified generation attributes. Differences between reported emissions by an LSE in each of these programs may be due to in-state trading of renewables, banking,

[53] See pg. 8 of these comments.
[54] ISOR, pg. 16.
[55] See Notice of Proposed Action, pg. 7; ISOR, pg. 4, 12, 18, 40, 42, 43; MRR FSOR 2011, pg. 108.
[56] MRR FSOR 2011, pg. 108

different market and sourcing boundaries, individual product reporting vs. company-wide planning and RPS compliance, single-year reporting vs. multi-year compliance periods for the RPS, etc.

Commission Staff has asserted that the total generated emissions for the sector in the MRR should nevertheless equal total retail emissions delivered in PSD.[57] But they will be equal not for a number of reasons, including exports, which are not excluded from the MRR but cannot be reported as delivered to customers under PSD. A consistent application of a requirement that these numbers be the same puts California's likely future situation of having large amounts of excess solar that it needs to export into sharp relief. Namely, all of the exported in-state zero-emissions generation would either need to be assigned emissions under the MRR or it could not be exported. The Commission should explain why accounting rules must be consistent between MRR and PSD for imports but not for exports.

Instead, the Commission could simply accept differences between these numbers and that they are not in conflict based on what is being measured for each program. AB 1110 requires that the Commission consult with CARB,[58] not that it align its methodology for retail electricity portfolios with CARB's MRR. Rather, it should help to interpret the differences for customers and lawmakers. A lower total for retail GHG emissions compared with the total for the electricity sector under the MRR, for example, may simply reflect that California customers are not necessarily purchasing all of the emissions associated with the power generating to meet load.

These methodologies/calculations may also have different geographic boundaries if, for example, we acknowledge sourcing to meet retail sales from the broader WECC.

Ultimately, it is entirely appropriate and may be helpful with respect to state and regional climate goals for the state to measure and set targets for three different emissions totals under cap-and-trade, IRP, and PSD. Targets for each may leverage different pathways and the positions of different entities to decarbonize the grid. Harmonizing accounting within the state and across the West does not mean conflating different types of accounting or only accounting for one thing, and neither does it require limiting trading and procurement flexibility for suppliers that provide access to and lower the costs of renewable energy for California customers.

7. *There is contention among industry experts about RECs.*[59]

We believe this is a mischaracterization. The World Resources Institute (WRI), the World Business Council for Sustainable Development (WBCSD), the International Organization for Standardization (ISO), the U.S. Environmental Protection Agency (EPA), the National Renewable Energy Laboratory

[57] See ISOR pg. 40 and 42.
[58] Sec. 398.4(k)(2)(A) of AB 1110.
[59] See ISOR pg. 17 and 18.

(NREL), The U.S. Department of Energy (DOE), the FTC, The Climate Registry (TCR), the Union of Concerned Scientists (UCS), the Natural Resources Defense Council (NRDC), and the Center for Energy Efficiency & Renewable Technologies (CEERT), to name a few, all recognize the role of RECs in retail GHG accounting (and several have submitted comments to that effect in this proceeding[60]). They were not referenced in the ISOR. A large group of diverse organizations supported unbundled RECs in California for the RPS, including the large investor-owned utilities (IOUs). No one disputed that they can be used for accurate retail accounting: "Almost all parties urge that the use of TRECs [tradable RECs, i.e. unbundled RECs] for RPS compliance be authorized. They advance a variety of reasons, focused on facilitating RPS compliance and promoting development of new RPS-eligible generation."[61]

Certain resources cited by Commission Staff do not actually support the proposal—they oppose all contract-based allocation of emissions for retail portfolios, which is not consistent with any state program. See *Comments on Documents Relied Upon and Supporting Materials* below for further discussion and additional documents to consider.

8. *There is no verified data to quantify the GHG benefits of RECs.*[62]

"GHG benefits" or "GHG value," as used in this[63] and previous CPUC proceedings,[64] largely refer to avoided grid emissions, emissions reductions, or net changes in emissions across the West, which again are not at issue and should not be conflated with the direct emissions factor of renewable generation. In this proceeding, the GHG emissions "value" of unbundled RECs and RECs associated with firmed-and-shaped imports is the direct emissions factor of the renewable generator, the same as the GHG emissions value of RECs that are procured bundled with power. There are verified, reliable data sources for the emissions and emissions rates of renewable generating facilities, such as the U.S. EPA's Emissions & Generation Resource Integrated Database (eGRID).[65]

The balance of emissions across the West is the same whether a California retailer purchases unbundled, firmed-and-shaped, or bundled renewable power as long as the null power is not also counted as renewable or zero-emissions. However, the only way to ensure consistent accounting across the West would be to use all-generation certificate tracking of power and emissions for the region, which we have suggested and which the Commission can propose in WREGIS to support the PSD program. The lack of such a tool is not a credible argument in support of the current proposal.

9. *The current market price of unbundled RECs is too low.*[66]

[60] See UCS NRDC TCR CEERT CPC comments on Power Source Disclosure, 2/23/2018. https://efiling.energy.ca.gov/GetDocument.aspx?tn=222704&DocumentContentId=25463.
[61] CPUC Decision 10-03-021, Sec. 4.2, pg. 16-7.
[62] See ISOR, pg. 12, 13, and 16.
[63] See ISOR, pg. 16.
[64] See CPUC Decision 08-08-028, pg. 21 for example.
[65] See https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid.
[66] See ISOR, pg. 11.

The relative market price of different renewable energy products does not affect the accuracy of PSD. The price of unbundled RECs reflects supply and demand for this product, based in part on compliance demand for the California RPS, which includes a maximum for PCC 3 renewables. The price of unbundled RECs will also be lower than the price of bundled REC products as long as the energy itself has value. The total cost of renewable energy equals the price of the REC plus the price of electricity.

However, the CPUC agrees that RECs could have significant value and may play a critical role in decisions to invest in renewable energy even if they have zero value from a resale or financing perspective since they are fundamental to consumer claims.[67]

10. There may be double claiming of onsite renewable energy.[68]

RECs were created in part to demonstrate exclusive retail claims to generation. Standards, accounting guidance, and disclosure and marketing rules, for example, from the FTC, are intended to reduce the risk of double claiming by reinforcing that the REC is the basis of a renewable energy usage claim in the U.S. Nevertheless, the potential for double claiming is not unique to unbundled RECs.

11. The impact of unbundled RECs on renewable energy development is too low.[69]

The question of the impact of unbundled RECs on renewable energy development is separate from the question of whether unbundled RECs can be used for accurate PSD.

However, to the extent that REC revenue may represent a small factor for project finance at an individual project level (depending on market dynamics at the time and place of analysis), "to judge the importance of RECs [in decisions to build new renewable energy projects] solely by short-term market pricing may be misleading."[70] Other public data consistently shows that the markets for unbundled RECs drive the development of new renewable resources. This demand comes from both RPS and voluntary programs. Particularly in states with retail choice, RPS compliance is primarily via unbundled RECs, and RPS remains a significant driver of new renewable capacity in and around these states.[71] Moreover, the majority of new renewable energy capacity additions both in the West and nationwide in 2018 were to serve non-RPS demand,[72] a portion of which is voluntary demand, and unbundled RECs

[67] See CPUC Decision 07-01-018, pg. 18 and 27-8.
[68] See ISOR, pg. 11.
[69] See ISOR, pg. 12.
[70] Holt, E. *et al*. (June 2011). *The Role of Renewable Energy Certificates in Developing New Renewable Energy Projects*. National Renewable Energy Laboratory (NREL) Technical Report NREL/TP-6A20-51904. Pg. v. https://www.nrel.gov/docs/fy11osti/51904.pdf.
[71] Barbose, G. (July 2019). *U.S. Renewables Portfolio Standards 2019 Annual Status Update*. Lawrence Berkeley National Laboratory. Pg. 18 and 36. http://eta-publications.lbl.gov/sites/default/files/rps_annual_status_update-2019_edition.pdf
[72] *Ibid*. pg. 17.

account for the majority of voluntary green power sales.[73] In addition, a significant proportion of recent non-RPS renewable energy capacity additions are associated with large corporate VPPAs,[74] a type of unbundled procurement where the generation facility is not located near the purchaser and the physical energy is transacted separately in the local market.

The CPUC has enumerated several other important market benefits of unbundled RECs (TRECs) that may affect renewable energy development:

> "Considering all the arguments, the benefits of allowing the use of TRECs for RPS compliance substantially outweigh the potential harms. Greater compliance flexibility, procurement efficiency, and potentially lower costs are real benefits, even if they may be relatively small in the early years of a TREC market. The availability of a revenue stream from TRECs may encourage new renewable development. Though many other factors, such as transmission siting, are also important determinants of new renewable development, the possibility of more money, or money arranged more flexibly, is only a plus for possible development. Furthermore, a TREC market will provide important pricing information to developers and the investment community, potentially providing them greater confidence in the long-term financial viability of renewable energy projects."[75]

The CPUC states definitively that, "the additional flexibility TRECs offer will enhance the market for RPS-eligible generation and facilitate achievement of the RPS goals."[76]

12. *The RPS Adjustment mechanism in the cap-and-trade program does not recognize firmed-and-shaped contracts as zero-emissions.*[77]

The RPS Adjustment nevertheless has the effect of aligning cap-and-trade with what is considered to be a renewable import under RPS by adjusting compliance obligations to diverge from the emissions reported under the MRR. The Commission could institute a similar mechanism in PSD.

13. *There is no federal recognition or definition of the environmental value of a REC.*[78]

The FTC has recognized RECs as representing, "a property right in the technological and environmental attributes of renewable energy,"[79] as have the United States Court of Appeals, Second Circuit,[80] and the

[73] O'Shaughnessy, E. et al. (October 2018). *Status and Trends in the U.S. Voluntary Green Power Market (2017 Data)*. National Renewable Energy Laboratory. Technical Report NREL/TP-6A20-72204. Pg. 4-5. https://www.nrel.gov/docs/fy19osti/72204.pdf.
[74] See https://rebuyers.org/deal-tracker/.
[75] CPUC Decision 10-03-021, pg.18-9.
[76] *Ibid*. Sec. 4.6.3. pg.43.
[77] See ISOR, pg. 41-2.
[78] See ISOR, pg. 42. Footnote 41.
[79] See U.S. Federal Trade Commission (FTC) (November 27, 2007). Guides for the Use of Environmental Marketing Claims; Carbon Offsets and Renewable Energy Certificates; Public Workshop. Announcement of public workshop; request for public comment. Federal Register. Vol. 72, No. 227. Pg. 66095. Footnote 9. https://www.govinfo.gov/content/pkg/FR-2007-11-27/pdf/FR-2007-11-27.pdf
[80] Wheelabrator Lisbon, Inc. v. Dep't of Pub. Util. Control, 531 F.3d 183 (2008). https://www.leagle.com/decision/2008714531f3d1831695

Armed Services Board of Contract Appeals (ASBCA).[81] Several other federal agencies, including the U.S. EPA and DOE, have similarly recognized the environmental value of RECs.[82] While it is true that there is no single national definition of a REC, California has its own definition, which includes "all renewable and environmental attributes."[83]

14. *Unbundled RECs from behind-the-meter generators would be double counted since this generation reduces retail sales reported for PSD.*[84]

RECs from generation consumed BTM can be ineligible. But unbundled RECs derived from generators that deliver electricity to a California balancing authority can be allowed from both non-BTM generation and excess generation to the grid from BTM systems.

Comments on Documents Relied Upon and Supporting Materials

The following materials do not support the proposal and/or ISOR in the ways intended by Commission Staff. We recommend changing or removing references to these materials in the FSOR.

CARB's October 28, 2011 FSOR for revisions to the MRR[85] ("MRR FSOR 2011")

The referenced portions of the MRR FSOR 2011[86] broadly address whether RPS compliance should be included in GHG accounting under the MRR and reduce cap-and-trade compliance obligations, but not whether RECs should be used in accounting for GHG emissions in retail electricity portfolios. We generally agree that RECs play no role in source-based accounting for the emissions profile of generated electricity. But the role of RECs in accounting under AB 1110 is substantially different. Since the emissions associated with retail electricity deliveries and sales cannot be directly measured, RECs and other contractual instruments must be used to determine them. CARB also requires contractual information for verification of the emissions associated with imported electricity under the MRR.

The MRR FSOR 2011 also recognizes the importance of REC retirement and the risk of double counting in accounting for imports. It refers to section 95852(b)(3)(D) of the cap-and-trade regulation, stipulating that if RECs were created for the electricity generated and reported pursuant to the MRR, then the RECs must be retired and verified. This section has since been removed from the cap-and-trade

[81] Honeywell Int'l Inc. v. ICM Controls Corp., No. 11-CV-569 JNE/TNL, 2013 WL 6169671 (D. Minn. Nov. 22, 2013) (Opinion by Administrative Judge Melnick on the Government's Motion for Partial Dismissal and the Parties' Cross-motions for Partial Summary Judgment).
[82] See Jones, T. *et al*. (2015). *The Legal Basis of Renewable Energy Certificates*. Center for Resource Solutions. https://resource-solutions.org/wp-content/uploads/2015/07/The-Legal-Basis-for-RECs.pdf.
[83] CAL. PUB. UTIL. CODE § 399.12(h)(2).
[84] See ISOR, pg. 43-4.
[85] California Air Resources Board. *Staff Report: Final Statement of Reasons*, Revisions to the Regulation for Mandatory Reporting of Greenhouse Gases. October 28, 2011.
[86] Specifically, pg. 107-113.

regulation. Currently, only REC serial number reporting is required under the MRR, though it is not required for a qualified positive verification statement. As a result, by CARB's own words here, double counting may occur if RECs associated with imports are not retired in California.[87]

Much of the referenced discussion in the MRR FSOR 2011 relates to the quantification and potential use of avoided GHG emissions incorporated in RECs to comply with a GHG regulatory program.[88] In neither the MRR nor PSD would RECs be used to adjust reported emissions based on avoided grid emissions. We agree that RECs should not be used as carbon offsets or quantities of emissions reductions to reduce reported emissions. They should be used to verify the delivery of electricity with the direct emissions profile of the renewable resource, in the MRR to verify the emissions profile of imported renewable electricity and prevent double counting of the direct emissions factor in other states, and in PSD to verify the emissions profile of renewable energy in retail electricity portfolios. Furthermore, the cap on emissions from the power sector, while it affects emissions avoided by renewable generation, has no effect on the direct emissions of renewable generators.

Materials from Brander and Gillenwater[89]

These materials do not support this proposal or existing GHG accounting methods in California, which recognize the contractual delivery of specified power and emissions on the grid. In fact, California implements and enforces market-based accounting practices across its programs. The Commission is not proposing, for example, that retail electricity emissions can only be averaged by grid region, or that a supplier must demonstrate causality between its sales and emissions in order to report a specified emissions intensity.

Additional Documents to Rely Upon

Beyond the select group of materials referenced, the Commission should feel free to rely upon the following consensus documents from global and national non-governmental organizations (NGOs), government agencies and other public entities, which are often the outcome of a multi-year, multi-stakeholder processes.

- City and County of San Francisco Civil Grand Jury, 2014-2015. (June 2015). *CleanPowerSF: At Long Last*. http://civilgrandjury.sfgov.org/2014_2015/14-15_CGJ_Report_CleanPowerSF_At_Long_Last_7_16_15.pdf
- CPUC. Decision 07-01-018. (January 11, 2007). *Opinion Adopting Methods to Determine The Renewable Energy Credits From Renewable Distributed Generation*.

[87] See MRR FSOR 2011, pg. 108.
[88] See MRR FSOR 2011, pg. 110.
[89] Listed in Sec. III of the ISOR.

- CPUC. Decision 08-08-028. (August 21, 2008). *Decision Authorizing Use of Renewable Energy Credits for Compliance with the California Renewable Portfolio Standard*. http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/86954.htm.
- CPUC. Decision 10-03-021. (March 11, 2010). *Decision Authorizing Use of Renewable Energy Credits for Compliance with the California Renewables Portfolio Standard*. http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/115056.pdf.
- CPUC. Decision 11-01-025. (January 13, 2011). *Decision Resolving Petitions For Modification Of Decision 10-03-021 Authorizing Use Of Renewable Energy Credits For Compliance With The California Renewables Portfolio Standard And Lifting Stay And Moratorium Imposed By Decision 10-05-018*. http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/129517.pdf.
- U.S. EPA, U.S. DOE, NREL, WRI, and CRS. (September 2018). *Guide to Purchasing Green Power: Renewable Electricity, Renewable Energy Certificates, and On-Site Renewable Generation*. U.S. EPA Office of Air (6202J) EPA430-K-04-015. March 2010. Updated: September 2018. https://www.epa.gov/sites/production/files/2016-01/documents/purchasing_guide_for_web.pdf.
- U.S. FTC. (October 11, 2012). 16 CFR Part 260. *Guides for the Use of Environmental Marketing Claims; Final Rule*. Federal Register. Vol. 77, No. 197. Pg. 62122. https://www.ftc.gov/sites/default/files/documents/federal_register_notices/guides-use-environmental-marketing-claims-green-guides/greenguidesfrn.pdf.
- U.S. FTC. (February 5, 2015). *Letter to Sheehey Furlong & Behm P.C. regarding Petition to Investigate Deceptive Trade Practices of Green Mountain Power Company In the Marketing of Renewable Energy to Vermont Customers*. http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2015/20150205_docket-na_letter.pdf
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Thank you again for your consideration of our comments throughout this proceeding. We believe it is very important. Though PSD does not set procurement requirements for suppliers, it would be disingenuous to minimize its importance for procurement. The rules for legal disclosure to customers will naturally affect procurement. We have also observed that PSD is a place where questions and confusion about carbon and renewable energy policy and discontinuities between them come together. The confusion affects whether we meet state and program goals. Californians need

clarification on what different programs are measuring and how they relate to each other. We need consistency among programs that are measuring the same thing, particularly among consumer-facing programs. We also need to clarify and properly communicate the differences between programs in order to leverage different pathways to decarbonization. The decisions reached in the PSD process have important implications for other programs like the RPS, the cap-and-trade program, and voluntary programs. What California does—across the board, but with PSD in particular—is wrapped up in conversations about western grid expansion and decarbonization and how states and the region as a whole will set and meet its goals.

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

Sincerely,
_____/s/_____
Todd Jones
Director, Policy