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SMUD Comments on Revised AB 1110 Implementation Proposal for Power Source Disclosure, Third Version

Additional submitted attachment is included below.

**STATE OF CALIFORNIA
BEFORE THE CALIFORNIA ENERGY COMMISSION**

In the matter of:)	Docket No. 16-OIR-05
)	
)	SMUD Comments on AB 1110
)	Implementation Proposal, Third
AB 1110 Implementation Rulemaking)	Version
)	
)	November 5, 2018
)	

**COMMENTS OF SACRAMENTO MUNICIPAL UTILITY DISTRICT
ON REVISED ASSEMBLY BILL 1110 IMPLEMENTATION PROPOSAL
FOR POWER SOURCE DISCLOSURE, THIRD VERSION**

The Sacramento Municipal Utility District (“SMUD”) respectfully submits the following comments to the California Energy Commission (“CEC”) regarding the Draft Staff Paper entitled “*Assembly Bill 1110 Implementation Proposal for Power Source Disclosure, Third Version*” (Third Proposal).

The fundamental goal of the Power Source Disclosure (PSD) program is to provide information to consumers about the power they consume in an easy to grasp, simple format. The changes to the PSD requirements pursuant to Assembly Bill 1110 (AB 1110) should serve to enhance consumer understanding of their electricity products (power mixes) and the related carbon footprint of the power they procure and consume, without causing consumer confusion.

SMUD continues to be concerned that the Third Proposal, like the CEC staff’s earlier proposals, will result in a power content label that is confusing to consumers who value renewable energy investments and hopes that CEC staff will consider the consumer perspective in further revising your proposal. SMUD also reiterates our concern that the proposal does not represent the reality of electricity contracting, procurement, or delivery in California or throughout the West. The complex systems created for transacting renewable energy were created because the electric grid is not a system whereby renewable power can generally be purchased and directly delivered to the purchaser or the procurer’s customers. The ability to use mechanisms such as RECs to track renewable energy procurement across systems and political boundaries in a regional grid is essential. SMUD’s customers have invested significantly in renewable energy above and beyond what is required by law or regulation, and, therefore, SMUD objects to the proposed diminishment of the environmental benefits of those investments through the power content label.

The revised proposal emphasizes consistency with the California Air Resources Board (CARB) mandatory reporting requirements (MRRs) while expressly establishing inconsistency with the Cap-and-Trade regulation and the Renewable Portfolio Standard regulation. Nothing in AB 1110 requires this treatment of these regulatory structures. It is unusual that consistency with CARB is being emphasized at the detriment of consistency with the RPS program, which is jointly managed by the CEC and CPUC, and with the existing assumptions underlying renewable PPAs and most electricity transactions across the West. Furthermore, elements of the Third Proposal are inconsistent with CARB's Cap-and-Trade program, including treatment of firmed and shaped resources and biogenic resources.

In addition, the Third Proposal contains inaccurate treatment of Energy Imbalance Market (EIM) transactions, by misapplying the default emission factor to all imports in the EIM marketplace rather than the "secondary dispatch" emissions.

SMUD is disappointed that the CEC staff's Third Proposal for implementation of AB 1110 continues to contain many provisions that will create or increase consumer confusion by dramatically altering how load serving entities describe their electricity products to their consumers. SMUD continues to oppose these provisions, repeating nearly verbatim our significant concerns from the initial proposal:

- The proposed treatment of unbundled Renewable Energy Credits (RECs) for purposes of calculating and presenting a product's "power mix" in the Power Content Label (PCL). The renewable generation underlying the unbundled REC should be included in the power mix, contrary to the proposed treatment.
- The proposed treatment of unbundled RECs for purposes of calculating and presenting a product's greenhouse gas (GHG) intensity in the Power Content Label (PCL). Again, the zero-GHG attribute of the renewable generation underlying the unbundled REC should be reflected in the consumer-facing PCL, contrary to the proposed treatment.
- The proposed treatment of "firmed and shaped" contracts involving the importing of "substitute power" associated with procurement of renewable generation outside of California. The underlying renewable procurement should be reflected in the consumer-facing GHG intensity in the PCL, consistent with the proposed reflection of that power in the power mix portion of the paper. Grandfathering of existing contracts as proposed is insufficient to resolve this error.

SMUD expands on these points and discusses other issues in the sections below.

A. Unbundled RECs Should Be Categorized in the PCL as Eligible Renewable Power to Maintain Consistency with State Law and Protocols Established for the Western Power Market.

SMUD strongly disagrees with the exclusion of REC-only or unbundled REC transactions from the PSD power mix percentage calculations. AB 1110 provides the

CEC with substantial discretion about how to incorporate unbundled RECs in the PCL. The law merely states that the CEC shall determine a format to include "... the portion of annual sales derived from unbundled renewable energy credits..."¹ in disclosures (such as the PCL). The law does not direct the CEC to remove unbundled RECs from the power mix – the CEC is instead directed to figure out how they should be included. AB 1110 does not proscribe that the CEC consider any novel or different treatment of unbundled RECs other than what exists under the current PSD program, other than acknowledgement of their existence in the label in some fashion.

Unbundled RECs are a viable, accepted, eligible renewable energy product in California, in voluntary markets, and in every other renewable program or structure in the country and around the world -- representing real support for zero-emission renewable generation. To SMUD's knowledge, no other entity treats unbundled RECs as in the Third Proposal and the Third Proposal is inconsistent with the Public Utilities Code section 399.21. Excluding unbundled RECs from the power mix calculations is in complete opposition to how they are treated in state law and nationally under the predominant Green-e standard that certifies and verifies voluntary green pricing programs and voluntary corporate renewable procurement actions. In addition, the CEC's proposed treatment runs afoul of Federal Trade Commission (FTC) guidelines on corporate claims about using renewable energy.²

Section 399.21(a)(1)-(2) of the Public Utilities Code states:

- (a) The commission, by rule, shall authorize the use of renewable energy credits to satisfy the renewables portfolio standard procurement requirements established pursuant to this article, subject to the following conditions:
 - (1) The commission and the Energy Commission shall ensure that the tracking system established pursuant to subdivision (c) of Section 399.25, is operational, is capable of independently verifying that electricity earning the credit is generated by an eligible renewable energy resource, *and can ensure that renewable energy credits shall not be double counted by any seller of electricity within the service territory of the WECC.*
 - (2) Each renewable energy *credit shall be counted only once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this state or any other state.*

(Emphasis added).

The Third Proposal implies that CEC staff is concerned about RECs somehow being double-counted, or used simultaneously by two-states for RPS compliance. We point out that this is expressly prohibited by statute, and, unless CEC staff does not trust the independent verification system that they oversee in coordination with other agencies,

¹ See PUC 398.4(h)(7).

² 16 C.F.R. § 260.15.

the issue of double-counting is not something that the PCL policy development should be concerned with or use as a justification for the devaluing of RECs.

Greenergy® and Voluntary Renewable Procurement.

The treatment of unbundled RECs for the power mix in the Third Proposal is particularly problematic for SMUD's green pricing program (Greenergy®), which in historical years has included procurement of significant amounts of unbundled solar, wind and other renewable RECs. SMUD has historically been able to include this renewable procurement transparently in the Greenergy® PCL -- as solar, as wind, etc. It remains the law in the state that RECs, even when unbundled, "... include all of the renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource."³ The underlying energy when a REC is unbundled and sold separately is "null power," and the fuel-type attribute along with other environmental attributes remain associated with the REC. That a REC can be separated from the underlying generation is nothing new and should not devalue the importance of that generation. Unbundled RECs would have no market purpose or value without this critical component.

SMUD notes that various local companies participate in SMUD's Greenergy® program with the intention of reducing their carbon footprint by procuring renewable energy. Those good intentions are undermined by the Proposal's treatment of unbundled RECs. However, it is likely that these companies would be a lot less interested in Greenergy® if they were misinformed by the CEC that their Greenergy® dollars were not buying renewable energy or zero-carbon electricity. SMUD believes that consumers have the right to know that their money went to choose renewable energy, without being confused and misled by a PCL that suggests their procurement does not support renewable generation, or that hides such procurement in a footnote.

SMUD does not see a good rationale for the CEC to adopt an interpretation of AB 1110 that essentially tells our customers that any unbundled RECs we procure for them cannot be claimed as renewable, but unbundled RECs they voluntarily procure for themselves under CRS and FTC guidelines can be claimed as renewable procurement. This will make it difficult for utilities to continue participating in and fostering the voluntary green power market in California.

RPS and WREGIS.

Additionally, the proposed treatment of unbundled RECs is inconsistent with the RPS program and WREGIS accounting rules. The RPS compliance structure allows compliance using procurement of unbundled RECs, where those RECs represent generation from CEC-certified, renewable facilities that are tracked in WREGIS. WREGIS procedures were agreed to under a very robust stakeholder process including a multitude of entities outside of California. Therefore, the implementation of this proposal would result in California creating rules that are inconsistent with previous state policies and with the renewable policies of our western neighbors. WREGIS requires not just information about the procurement of RECs (bundled and unbundled),

³ Pub. Util. Code § 399.12(h)(2).

but also the verifying meter information about the underlying renewable generation. When a program such as Greenergy® procures an unbundled REC, the underlying renewable generation must be documented and associated with the REC in WREGIS. Absent that verification, the Green-e standard will not certify the procurement as renewable.

SMUD has previously suggested that the PCL should include consistency with the RPS on a resource eligibility basis. The CEC's proposed treatment of unbundled RECs is not consistent with this principle, as it would force retail suppliers to suggest to their customers that some of the renewable electricity they buy, while fully eligible to meet the RPS requirements, are somehow less "renewable" than other eligible renewable products. This policy is counterproductive to maintaining consumer support for higher and higher targets of the RPS. As pointed out in the Third Proposal in footnote 12 on page 8, California Rulemaking Law section 11349.1(d)(4) tasks the Office of Administrative Law (OAL) with evaluating a regulation for consistency with other state laws. SMUD finds it hard to believe that OAL would accept a regulation as "consistent" if that regulation required a retail seller to tell consumers the power they are buying is not renewable in the power mix, when that same retail seller is allowed to use unbundled RECs from eligible resources for compliance with a requirement to buy renewable power for their customers. It is not sufficient to devalue this eligible renewable procurement by referring to it as a renewable "investment" in the fifth footnote in the proposed PCL. It is also not transparent for consumers, who may wish to know if the unbundled RECs procured on their behalf are associated with underlying solar, wind, or some other type of renewable generation.

This is particularly problematic with respect to SMUD's procurement of the RECs from distributed solar photovoltaic generation installed by our customers. SMUD has purchased the RECs from most of these customer installations and includes, where feasible, these RECs in our RPS procurement, certifying both individual and aggregated RPS facilities with the CEC and registering and tracking that generation in WREGIS. However, the CEC considers this local generation and procurement as comprising unbundled REC procurement. SMUD should not be forced to provide our customers the nonsensical information that renewable generation created locally, from PV panels on their own homes and businesses, is less "renewable" in comparison to other, more remote, renewable procurement.

Unbundled RECs Proposal.

Nevertheless, SMUD agrees that AB 1110 requires the CEC to identify unbundled RECs in some fashion in the PCL. SMUD recommends that the CEC adopt the footnote language below in place of footnote 5 in the Third Proposal:

xx percent of this product is from "Unbundled REC" procurement, meaning that it comes from buying the renewable nature of the source without purchasing the actual electricity from the source. Unbundled RECs reflect actual electricity that has been generated from a renewable source and

provided to the interconnected electricity grid covering the western United States, thereby reducing GHG emissions.

Problematic Statements in the Third Proposal about Unbundled RECs.

On page 7, the Third Proposal states, “However, 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.” This statement reflects a misunderstanding of how the electricity market and the interconnected western grid work in practice. RECs are not an electricity source, but they are associated with electricity placed on the western interconnect, and there is no measurement or metric that can determine whether those electrons served California retail load or not – it is all interconnected and loop flows in the system can mean that electricity serving in-state loads is made available by the electromagnetic field from out-of-state sources and vice versa. The only way to reliably associate a particular electricity source with a California retail load is by a procurement contract, whereby an entity procures a specific electricity source for their customers understanding that the underlying electrons do not necessarily flow to them, even if transmission line space has been scheduled to bring the energy “to” customers. Hence, including unbundled RECs in a fuel mix (or GHG emissions intensity calculation) would not “... inaccurately portray the sources of electricity serving California retail customers ...” but rather would *more accurately* portray electricity procurement for those customers.

On page 8, the Third Proposal states, “However, a REC is not electricity; it is a tracking instrument for renewable generation and supports retail level renewable energy claims.” Actually, *there is nothing problematic* about this statement. What is problematic is that the Third Proposal is not consistent with it. The PCL is a “... retail level renewable energy claim...,” so an unbundled REC should be allowed to reflect and track that renewable procurement in the power mix on the PCL. And, by the way, in any of the retail marketing claims that are required by AB 1110 to be consistent with the PCL. The Third Proposal suggests that RECs “...support retail level renewable marketing claims ...” but then proposes a structure in which it is a violation to use RECs for that purpose.

On page 13, the Third Proposal states, “... simple to understand information means information that does not contradict other public-facing state products, such as the Tracking Progress report and” If the Tracking Progress report referred to is that for renewable procurement and the RPS on the CEC website, this goal is not achieved. The Tracking Progress report will show renewable procurement as allowed by the RPS, *including any unbundled RECs*, and hence be inconsistent with the PCL. Similarly, the public-facing RPS compliance reports will include procurement of unbundled RECs, and hence be inconsistent with the PCL as proposed.

On page 13, the Third Proposal states, “Consequently, staff considers it necessary to require REC procurement for all retail-level renewable energy claims of delivered generation in order to prevent double-counting or the disaggregation of environmental attributes.” The only thing problematic about this statement is that it does not recognize that *the same double-counting problem exists for unbundled RECs*. The CEC should

extend this rationale to all RECs, not just RECs with "...delivered generation...."

On page 18, the Third Proposal states, "This [unbundled RECs] has led to concerns that ... unbundled RECs are being used to misrepresent the actual sources of electricity used to serve customers." Use of the word "misrepresent" here implies some nefarious intent, and as such is wholly out of place in this document. SMUD respectfully requests that CEC staff delete this statement from future drafts. SMUD is certain that neither we nor any other PCL-filer is buying RECs from renewable generators in an effort to mislead our or their own customers. The renewable energy underlying an unbundled REC *happens* and does not evaporate into the ether -- no one else should be able to take credit for the "green" elements of that electricity. Entities showing unbundled RECs as renewable in their PCLs are simply and accurately reflecting renewable procurement on behalf of those customers – there is no intent at all to "misrepresent." Rather, it would be any statement that the specific electrons from a source actually physically served customer load that would be inaccurate and misleading.

On page 19, the Third Proposal states, "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." There are several problematic aspects of this statement:

- Unbundled RECs from behind-the-meter in-state generators do deliver electricity to a California balancing authority. Most of these generators export power at some point, and when that happens, that power is definitely delivered to a California balancing authority. Even when the electricity is "used" on-site, it is delivering power to a customer that is wholly located within a California balancing authority.
- Unbundled RECs that come from in-state generators delivering RECs to one-party and null power to another or to the system are similarly delivering power to a California balancing authority. The Third Proposal appropriately states that null-power is not renewable and has GHG emissions. Hence, the renewable nature of this generation must reside with the unbundled REC, or it is simply not counted at all.
- While no associated electricity is contractually purchased in the case of unbundled RECs from out-of-state generators, this does not mean that the underlying generators are not delivering electricity to a California balancing authority. In physical fact, electrons from those generators serve the entire grid and cannot be divided into buckets serving out-of-state or California balancing authority load except by accounting convention.

B. Unbundled RECs Should Be Categorized in the PCL as Conveying Zero-GHG Emissions.

SMUD also strongly opposes the recommendation in the Third Proposal that unbundled RECs should not be included as representing zero-GHG procurement in the GHG intensity factor portion of the PCL. The zero-GHG attribute of the renewable generation underlying the unbundled REC should be reflected in the consumer-facing PCL, contrary to the proposed treatment. The GHG intensity calculated for the PCL should reflect the claim of responsibility for GHG emissions from one's procurement. If a retail supplier procures renewable generation and tracks that procurement by their holding (and at some point retiring) RECs – bundled or unbundled, that supplier should be able to claim the GHG-free element of that REC.

On page 19, the Third Proposal states, "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 GHG emissions intensity." This statement reflects a misunderstanding of how RECs and the electricity system work, for the following reasons:

- An unbundled REC still represents renewable generation supplied to the grid – you cannot have a REC without generation. Renewable generation supplied to the grid reduces GHG emissions – it displaces fossil power on the grid.
- In the case of unbundled RECs from behind-the-meter sources in California, the renewable generation is supplied to a California balancing authority, but the fossil generation that is displaced may be from in-state or out-of-state (e.g., an import contract may be displaced). In the case of unbundled RECs from an out-of-state source, the generation *does actually happen* and is delivered to the grid where the generator is located, but the displaced fossil power may be in-state or out-of-state power (e.g., an export from a California generator may be displaced).
- Neither the location of the underlying generator associated with the unbundled-REC, nor the bundling or unbundling of the REC itself, can be clearly associated with GHG reductions in one place versus another.
- The question is who gets to claim those GHG emission reductions *for product claims* as opposed to compliance – those that have procured the renewable attributes through the REC or some unknown entity that simply "sees" the reductions from their powerplants or geographic location.
- The right way to answer this question for retail product claims is by asking *who caused* the reductions with their procurement – and the answer to that question is the procurer of the renewable generation, either bundled or unbundled.

That this is the right answer is supported by comparison to various types of bundled procurement of RECs and energy. Suppose an entity procures energy and RECs from a renewable facility located in California but separates and keeps the RECs and sells

the null power outside its service territory. In this case, the underlying energy is not delivered to the service territory, and so "... cannot modify or adjust the emissions attributable ..." to the California retail supplier, according to the logic of the Third Proposal. The retail supplier must serve its load with delivered power that does not come from the renewable generator, identical to the case of procuring unbundled RECs, but the Third Proposal *treats these cases exactly opposite*, allowing modifying and adjusting the GHG emissions in one case but disallowing those in the other.

Similarly, suppose an entity procures energy and RECs from a renewable facility located outside California, delivers that power to a California power authority, and then separates and keeps the RECs and sells the null power outside its service territory. Again, in this case, the underlying energy is not delivered to the service territory, and according to the logic of the Third Proposal "... cannot modify or adjust the emissions attributable ..." to the California retail supplier. The retail supplier must serve its load with delivered power that does not come from the renewable generator, identical to the case of procuring unbundled RECs, but the Third Proposal *treats these cases exactly opposite*, allowing modifying and adjusting the GHG emissions in one case but disallowing those in the other.

The concept that there is some difference between the unbundled REC case and the "bundled but not delivered" case in terms of actual GHG emissions to customers is simply wrong. The correct way to think of this question is by associating the retail product claim to GHG reductions with the REC purchase in *all* cases. The GHG intensity calculated for the PCL should reflect the claim of responsibility for GHG emissions from one's procurement. If a retail supplier procures renewable generation and tracks that procurement by their holding (and, at some point, retiring) RECs – bundled or unbundled, it has the right to claim the zero-GHG signature of the underlying renewables.

Greenergy® and Voluntary Renewable Procurement.

The treatment of unbundled RECs for calculating GHG intensity in the Third Proposal is particularly problematic for green pricing programs such as SMUD's Greenergy® program. The amount of unbundled solar, wind and other renewable RECs included in the program varies from year to year, and to the extent that SMUD cannot tell Greenergy® customers that they we are procuring the rights to zero-GHG energy on their behalf it significantly weakens the program. Under the Third Proposal's treatment of unbundled RECs, a PCL could misinform customers who are paying a premium for acquiring a 100% GHG-free energy product that their power has significant GHG emissions. This can only lead customers of green pricing programs to question their procurement choices and thereby undermine the voluntary green pricing marketplace.

Consistency with CARB's Mandatory Reporting Regulation.

AB 1110 does not require the CEC to develop a GHG intensity for electricity products that strictly conforms to practices in the Mandatory Reporting Regulation (MRR). The law merely requires that when developing the methodology for establishing GHG intensities of electricity products the CEC consult "... with the State Air Resources

Board ...”⁴ and “...rely on the most recent verified greenhouse gas emissions data”⁵ This refers to the MRR data, which is source-based (or first-provider based for imports), and it is reasonable for the CEC to be consistent with the State’s primary source of GHG data for sources – *when calculating source-based intensity factors*. In fact, this provision of law specifies that the reliance on MRR data is for developing “...greenhouse gas emissions intensity factors for electricity *from specified and unspecified sources* ...,” not for electricity products.

SMUD contends that it counterproductive to tie the consumer-facing, *procurement-based* GHG intensity calculation for the PSD too exactly to the *source-based* compliance reporting under the Mandatory Reporting Regulation (MRR). Assembly Member Ting’s letter to the journal reaffirms that the CEC has discretion in developing electricity product GHG intensities. It states that the bill “... does not require the use of a specific methodology, or data source for developing emissions intensity” The letter goes on to indicate the author’s intent that “... the CEC’s approach should be consistent, *to the extent practicable*, with the approach taken by ARB ...” (*emphasis added*). When determining what is “practicable” here, the CEC must consider the differences between a source-based compliance reporting structure (at CARB) and the consumer-facing, procurement-based structure to be developed for the PCL. These two structures will of necessity be different, even if both are based on the reported emissions from sources.

Developing and providing consumer-facing information about the GHG intensity of an electricity product must account for multiple sources and uses of power from those sources (wholesale, retail, etc.) under a variety of procurement mechanisms, in addition to the verified emissions from each source. Simple reliance on source-based emission reporting only, without considering the complexity of electricity procurement in general, and particularly with California’s complicated RPS structure, will lead to an electricity product intensity calculation that is confusing to consumers and that causes market disruption.

For example, the MRR emissions reported for the electricity sector overall are greater than the emissions that can be attributed to procurement for their customers by retail sellers. CARB has consistently treated its obligation under AB 32 as including all GHG emissions from electric generation sources within California (above the 10,000 ton threshold) plus all GHG emissions from power imports, without accounting for emissions from power exported to consumers outside the state. Hence, the total GHG emissions implied for the electricity sector in the PSD/PCL process will not match the total electricity sector emissions reported in MRR in any year. On a retail-seller specific basis, this mismatch is exacerbated. The annual emissions reported in MRR from plants or sources associated with a retail seller could be significantly different than the implied GHG emissions for the year in the retail seller’s PSD/PCL process due to wholesale sales from those facilities and to the adjustments to intensity allowed when bundled power is not delivered to a service area.

⁴ See 398.4(k)(2)(A)

⁵ See 398.4(k)(2)(C)

Page 13 of the Third Proposal relays a staff conclusion that the information in the PCL should not contradict other public-facing State products, such as CARB's GHG Emission Inventory. Since this public-facing product is *source-based* rather than *retail-product based*, consistency of the MRR with the PCL is not "simple-to-understand information." As mentioned above, the inventory total for the electric sector will not match the total GHG emissions in the PCL structure in any year. Information about individual load serving entities may or may not even be available in the inventory – an entity that does not import power nor own power sources would not be included there. As mentioned above, it is *more important by far* for as much consistency as possible be established with the RPS.

Consistency with the Renewable Portfolio Standard Program.

Rather than trying to shoehorn the consumer-facing, procurement-oriented PCL to maximum consistency with CARB's source-oriented MRR structure, the CEC should strive to make the power mix portion of the PCL consistent with the renewable eligibility requirements of the consumer-facing, procurement-oriented RPS, as argued above. With that consistency in place, the CEC should make the PCL internally consistent between the power mix and GHG intensity portions by reflecting the nature of the procured REC and renewable attributes to show zero-GHG emissions in the intensity calculation. That a REC can be separated from the underlying generation is nothing new and should not devalue the zero-emission nature the underlying renewable generation. Without the critical component of conveying renewable, and particularly zero-emission attributes, unbundled RECs would have no market purpose or value.

It will clearly cause confusion and not be simple to understand if consumers signing up voluntarily for renewable power are presented with information about their power having significant GHG emissions.

C. Firmed and Shaped Contracts Should be Reflected Consistently -- as Renewable in the Power Mix Portion of the PCL and with Commensurate (Mostly Zero) GHG Emissions in the Emission Intensity Portion.

SMUD strongly disagrees with the CEC's position regarding the treatment of firmed and shaped contracts for the GHG emissions calculation. The CEC should strive for consistency between the two parts of the PCL to avoid consumer confusion and market disruption. Firmed and shaped contracts are eligible for RPS compliance, and when this procurement is included as eligible renewables on the power mix portion of the PCL, the CEC should also show the zero-GHG nature of the procurement in the GHG intensity portion. Consumer confusion will arise if there is a PCL that shows 100% eligible renewable generation procured through firmed and shaped contracts but also shows a 100% fossil GHG signature. Requiring such a discrepancy in the PCL may disrupt the market for firmed and shaped contracts and increase costs of compliance in the RPS program at a time when renewable procurement is set to accelerate again.

The proposed treatment here is inconsistent with ARB's Cap-and-Trade program, which allows an "RPS Adjustment" to reduce a procuring entity's Cap-and-Trade compliance obligation for firmed and shaped contracts (under certain conditions). The ARB is essentially saying that for this type of procurement, the procuring entity's GHG responsibility for compliance is linked to the originating renewable power and not the firming fossil power. This is an instance where it is "practicable" to be consistent with the Cap-and-Trade program rather than the MRR program at CARB. Assembly Member Ting's letter to the journal indicates the author's intent for practicable consistency with ARB's Cap-and-Trade program as well as MRR, and explicitly acknowledges that the Cap-and-Trade program allows "... specific adjustment to compliance obligations," which includes the RPS Adjustment. The author's stated intent, and recognition of adjustments allowed within these programs, lends itself to application of a similar adjustment to the GHG intensity calculation for firmed and shaped contracts, as provided under the Cap-and-Trade program with the RPS adjustment.

Grandfathering of firmed and shaped contracts through 2024 is not a sufficient measure to address the fact that there are existing firmed and shaped contracts that were entered into with full expectation of being treated as renewable under the RPS, and understanding that the power procured was in fact GHG-free. This proposal fails to recognize that some of these resources are owned rather than contracted. It is not proper for the PSD regulations to force divestiture of resources. The proposal also fails to be consistent after 2024 with the ability under the Cap-and-Trade program to reduce compliance requirements using the RPS adjustment. Again, in this case, the consistency should follow the Cap-and-Trade structure's ability to modify GHG intensity, rather than the MRR structure's baseline emission reporting.

D. The Third Proposal Errs in Rejecting the Use of RECs for Emission Tracking Due to REC Treatment Under the Cap-and-Trade Program.

The Third Proposal states on page 18 that "... RECs will also not be used as a tracking mechanism for GHG emissions associated with electricity generation under PSD," because a REC is not an emission reduction credit under the Cap-and-Trade program, and RECs are not used for emission tracking in that program. SMUD agrees that RECs are not emission reduction credits or in any way equivalent to allowances under the Cap-and-Trade program. The Cap-and-Trade program is tracked by tons of emissions and compliance instruments reflecting tons of emissions, and there is no need for another tracking mechanism in that program.

However, this does mean that using RECs to reflect actual GHG responsibility in a consumer-facing, procurement-based PSD and PCL structure is inappropriate or should not be allowed. Using RECs to reflect the actual GHG responsibility of a portfolio does not and need not change how RECs are treated under California's Cap-and-Trade program -- RECs are not equivalent to allowances or offsets under that program. An allowance is an instrument that "covers" a ton of GHG emissions for compliance

purposes. An offset represents an amount of GHG reduction outside the Cap-and-Trade program that can also be used to “cover” a ton of GHG emissions (up to the stated limit). A REC, on the other hand, simply carries the zero-GHG attribute of the underlying renewable generation. When an entity procures renewables, that procurement is tracked via RECs (in WREGIS), and the entity has a legal right to claim that it has procured power with renewable GHG emissions, usually a rate of zero tons/MWh. The REC then cannot represent an amount of GHG emissions (like an allowance) or an amount of GHG reduction (like an offset), it merely says this particular associated MWh has zero (or low) GHG emissions associated with it. The CEC can treat RECs as including that simple claim for purposes of the PSD program without concern that this will interfere with or contradict the Cap-and-Trade or MRR structures.

It is important to consider how renewable generation and procurement affects GHG in California, under the Cap-and-Trade system. Generation of renewable energy, anywhere in the Western Interconnection nearly always causes a decrease of GHG from fossil plants that are turned down or off, but, again, this has no impact on overall GHG emissions under the Cap. The reduction could happen within the state – and the allowed amount of GHG overall remains the same. The reduction could happen outside the state (outside the CAP), and the allowed amount of GHG reductions overall under the Cap remains the same (in fact, then, out-of-state GHG emission reductions arguably have greater impact on worldwide GHG emissions). What this means for the purposes of California’s PSD/PCL is that the entity that procures renewable generation cannot claim an overall reduction of GHG but can claim *less responsibility* for GHG emitted because of their renewable procurement. It is this claim of *less responsibility* that follows the REC.

E. The Third Proposal Errs in Rejecting the Alternative of Scope 2 Accounting.

The Third Proposal indicates that the Scope 2 Protocol, an accounting standard developed and used predominantly to track GHG emissions and allocate responsibility to corporations and governments, was considered but rejected as an alternative to the proposed treatment of RECs and GHG emissions. The stated rationale for rejecting the widely-used and vetted Phase 2 Protocol, in which RECs are considered as conveying the zero-GHG of the underlying renewable energy, is that the Protocol does not provide accurate reliable, and simple-to-understand information about the GHE emissions associated with an electricity product.

SMUD strongly suggests that the CEC re-evaluate their conclusion about the Phase 2 Protocol. Its wide use and acceptance are evidence that it provides the most reasonable, accurate and easy-to-understand information possible to companies and consumers. In contrast, the structure included in the Third Proposal is certain to be confusing to customers and disruptive to the voluntary renewable marketplace and the RPS.

The Scope 2 Protocol states that a REC (unbundled or bundled) carries with it all the attributes of the renewable generation. The Third Proposal states that 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." That is incorrect. The Scope 2 Protocol in fact accounts for the emissions from the substitute electricity, *but also accounts* for the emission reductions associated with the renewable generation, delivered or not. It is the proposal in the Third Protocol that somehow "waves away" those emission reductions as *not important* to the procurement of renewable power by a load serving entity. The Scope 2 Protocol is more accurate in this case.

The Third Proposal also states that 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." In fact, the Scope 2 Protocol allows such displacement because there *are GHG reductions that occur* and that *can be attributed* to the procurer of the REC, thereby displacing the emissions from portfolio generation. This is a far more accurate interpretation of the act of procurement for one's customers than the structure in the Third Proposal, which simply ignores the GHG emission reductions arguably procured by purchaser of RECs for the portfolio.

This section of the Third Proposal goes on to state that investments in firmed and shaped renewables and unbundled RECs are treated differently under the RPS. While it is true that there are limits on the use of firmed and shaped renewables and unbundled RECs under the RPS, this should not and does not translate into differential treatment of GHG emissions for the different buckets of renewables. Large hydro resources are ineligible for the RPS altogether, but this does not change the GHG-free nature of that generation. Limits on the use of particular contractual structures under the RPS does not change the essential renewable and zero-GHG nature of these resources. Neither would favoritism toward particular renewable technologies (such as solar), which exists in some RPS structures, be considered to somehow enhance the zero-GHG nature of the favored resources.

F. The Third Proposal's Treatment of GHGs from Imports from the CAISO EIM Is Inappropriate and Confuses EIM Imports with Unspecified Power.

The Proposed Treatment of EIM Transactions is inconsistent with CARB's MRR and confuses different types of energy market purchases.

The Revised Staff Proposal provides that "unspecified electricity, including any electricity that may be transacted through the EIM, be assigned CARB's default emissions factor of 0.428 MT CO₂e." Based on this description, it appears that the Revised Staff Proposal is conflating energy that might be purchased through energy spot markets (i.e., the CAISO's real-time market) or energy purchased at other California "interties" without an underlying PPA or contract, with energy transacted through the CAISO Energy Imbalance Market. CARB's Mandatory Reporting

Regulations (Title 17 of the California Code of Regulations, section 95111 *et seq*) provide for separate accounting methods for spot market purchases of unspecified electricity and EIM imports. It seems that on this issue of what purchases should be classified as unspecified vs. specified, the CEC should defer to CARB and CAISO. 17 CCR sections 95111(a) and (b) do provide that the GHG emissions for unspecified imports be calculated using the current default emissions factor. However, CARB staff has acknowledged that the default emissions factor has not been updated in many years. Therefore, we recommend that the Power Source regulations simply *refer* to the MRRs for the exact number, rather than providing the default emissions factor.

The calculation for GHGs of EIM imports in the MRRs is distinct from the calculation of unspecified electricity, and therefore the CEC should reflect this difference. In fact, EIM imports are not unspecified power, as CAISO's market clears specific resources to serve EIM imbalances. The current MRRs reflect this in section 95111 (h)(C), which calls for "all scheduling coordinators to 'calculate, report, and cause to be verified emissions associated with electricity imported as deemed delivered to CA by the EIM optimization model.'" Therefore, energy delivered to California EIM participants via an EIM transaction is referred to in the CARB Mandatory Reporting Regulation (MRR) as "Deemed Deliveries," and CARB also calculates separately the "outstanding emissions" from the EIM.⁶ The "outstanding emissions" from the EIM are commonly referred to as coming from "secondary dispatch." The CEC staff proposal seems to confuse the issue of "outstanding emissions" from the EIM with actual EIM deemed deliveries by suggesting that all EIM imports be assigned the unspecified emissions rate. In the MRRs, the unspecified rate is only used to calculate the "outstanding" emissions, which are emissions occurring outside of California that are not directly related to imports.

Therefore, SMUD asserts that the issue of outstanding EIM deliveries also has no place in the Power Source Disclosure program. CARB has found a need to account for the GHGs from these "outstanding" emissions, but has not linked them to any specific imports, and rather is currently retiring allowances from other sources to cover these emissions.

As CARB is now proposing revisions to their MRRs, scheduled to be voted on in December, the CEC should consider that these proposed revisions provide further clarification on the issue of deemed deliveries:

95111(h)(1)(C): Deemed Delivered EIM Emissions Reported by EIM Participating Resource Scheduling Coordinators. Annually, based on the results of each 5-minute interval, each EIM Participating Resource Scheduling Coordinator must calculate, report, and cause to be verified, emissions associated with electricity imported as deemed delivered to California by the EIM optimization model. For data year 2019, EIM Participating Resource Scheduling Coordinators must report emissions associated with electricity imported as deemed delivered to California

⁶ See 17 CA CCR §95111 (h) *Data Requirements and Calculation Methods for Electric Power Entities*

based on the results of each 5-minute interval for the time period of January 1, 2019 to March 31, 2019.

-and-

(h)(2)(C) Deemed Delivered EIM Emissions as Calculated by CARB. Deemed Delivered EIM Emissions is the sum of the following information reported by EIM Participating Resource Scheduling Coordinators: EIM Participating Resource Scheduling Coordinator Reporting Requirements. For every 5-minute interval, each EIM Participating Resource Scheduling Coordinator must calculate, report, and cause to be verified, emissions and MWh associated with electricity imported as deemed delivered to California by the EIM optimization model.

Therefore, under the current and proposed MRRs, the issue of a default emissions factor is only applied to outstanding EIM emissions that CARB attributes to the secondary dispatch.

To ensure consistency with the existing MRR and pending revisions, the CEC should simply incorporate by reference the existing MRR requirements that EIM participants report the emissions from their “deemed delivered” EIM energy according to the data provided by CAISO, with the GHG intensity for that energy, which is also data CAISO will provide to each EIM participating utility. The Power Source Disclosure regulations should simply defer to the MRRs on the issue of EIM imports to maintain consistency when this section of the MRRs is updated.

It would be inappropriate for the Power Content Label to report on the “outstanding EIM emissions” as these cannot be attributed to any one utility, or to power that is actually delivered to serve load in California, and therefore is outside the statutory intent of the Power Content Label and Power Source Disclosure. While it may be appropriate for CARB to somehow capture potential emissions increases outside of the state related to the EIM, accounting for those uncertain emissions on a power content label would be contrary to the purpose of the label, as laid out in statute. Applying an unspecified energy emissions intensity to delivered EIM energy would also be factually inaccurate and ignore the entirety of the CAISO EIM market system, which tracks every transaction that is delivered to California and the emissions intensity of the source of the import.

G. Comments on the Proposed Power Content Label Template.

The Third Proposal suggests a fairly complicated Power Content Label template. SMUD is concerned that as the CEC has moved from initial proposal (July 2017) to revised proposal (January 2018) to the current Third Proposal, the PCL template has consistently gotten more complicated. The current proposal has six footnotes, with three of them containing additional quantitative information beyond the main label. Both of the earlier proposals only contained four footnotes, with no additional quantitative information, and the footnotes in the revised proposal were somewhat longer. In contrast, the current PCL has just two footnotes.

GHG Intensity Bar Graph.

SMUD understands that the PCL must include more information pursuant to AB 1110, including GHG intensity, and supports the simple bar chart implementation of the required GHG intensity information, with one caveat. SMUD suggests that the information be presented in the form of lbs/MWh or tons/MWh, rather than kg/MWh, for two reasons. First, consumers today are still more familiar with lbs and tons as units, rather than the metric kgs. Second, the GHG inventory, MRR, and Cap-and-Trade program at CARB are all using tons as a GHG metric.

Biogenic Information in Footnote 1.

SMUD sees no reason to complicate the PCL with the biogenic CO₂ information included in the first footnote. Everything after "... generated for this product" should be removed. SMUD understands that biogenic CO₂ is included in the MRR and the State's GHG inventory, but has already shown above that the inventory information on CO₂ cannot be exactly the same as the PSD/PCL information (due to wholesale exports). Removing the biogenic CO₂ would be more consistent with both the Cap-and-Trade program, in which biogenic CO₂ has no compliance obligation, and the RPS program, in which bioenergy is renewable and should be considered to have zero-GHG.

Biogenic CO₂ is also different from fossil CO₂ in that it generally recirculates between the atmosphere and the current biosphere (CO₂ is removed and then re-emitted), rather than adding to the total amount of CO₂ in today's system from long-sequestered fossil sources. The exact manner in which this recirculation works can vary with the type of biomass or bioenergy, causing differing strong opinions about the how bioenergy should be reflected in climate accounting. Adding the "lifecycle" emissions from how bioenergy is transported and processed complicates the picture, increasing the controversy. Nevertheless, the PSD/PCL process is not required to be consistent with any of the lifecycle pathways of the LCFS, nor include lifecycle emissions in any way. SMUD believes that it is best for PSD/PCL consumers if the complications of bioenergy accounting are not included in any way in the label. The CEC might as well have adopted the mantra heard from climate change deniers joking that those concerned about climate change should stop breathing, hence stop emitting personal CO₂, not understanding the recirculated nature of that CO₂.

Footnote 2.

SMUD strongly opposes the entirety of footnote 2. As argued above, SMUD strongly believes that all firm and shaped contracts should be reflected in the GHG intensity as reflecting zero-emission power. Even if the CEC does not follow this path, however, SMUD believes that no footnote is necessary to explain to consumers what emissions are "exempt" from disclosure. It is problematic to have a statement in the label with wording "... nonrenewable energy delivered under renewable contracts" Readers of the label will not be familiar with the regulations, the GHG inventory, or even likely the Cap-and-Trade or RPS programs. Hence, a statement about nonrenewable energy in renewable contracts is simply confusing. In addition, the additional quantified information in the form of percent of resources exempt from GHG disclosure does not

allow the consumer to easily see how the GHG intensity the footnote refers to would change, for either the electricity product in question or the California Average.

Footnote 5.

SMUD strongly opposes the wording and placement of footnote 5. As argued above, SMUD believes that unbundled RECs should be included in the power mix within the category of the underlying eligible renewable with which they are inextricably associated. Similarly, SMUD strongly believes that the energy supported by unbundled RECs should be included in the GHG intensity calculation as zero-GHG energy. No other structure is less confusing to consumers. No other structure is a more accurate representation of the impact on atmospheric GHG from the REC procurement. No other structure better avoids double counting or double charging of GHG benefits to a load serving entity.

However, to give weight to the charge from AB 1110 to include unbundled RECs in the PCL, SMUD reluctantly accepts the need for an additional complicating footnote. SMUD suggests that footnote 5 be renumbered as footnote 2, replacing the removed footnote (SMUD's recommendation), be "footnoted" from the "Eligible Renewables" title (beside the current footnote 3), and replaced with the following language:

"xx percent of this product is from "Unbundled REC" procurement, meaning that it comes from buying the renewable nature of the source without purchasing the actual electricity from the source. Unbundled RECs reflect actual electricity that has been generated from a renewable source and provided to the interconnected electricity grid covering the western United States, thereby reducing GHG emissions."

The current wording is problematic in other ways. Simply stating that there is a renewable "investment" that does not deliver electricity to the retail supplier's customers leaves out the necessary information that renewable power is generated and GHG emissions are hence reduced. SMUD opposes the statement about unbundled RECs not being included in the power mix or the GHG intensity calculation as zero-GHG. Even so, the statement is confusing to the consumer – what is meant by "... not included in the GHG intensities above?" How would have unbundled RECs be included? Would their inclusion have increased or decreased the GHG intensity? How is the GHG intensity calculated? Finally, the additional quantitative information raises for the first time the word "retired." What does that mean to the consumer, and why is it in a simple-to-understand PCL?

Giving weight to Public Utilities Code section 398.4(h)(7).

Unless the CEC sharply reverses course as we have recommended, SMUD recommends that the PSD regulations provide guidance giving full weight to the provisions of PUC section 398.4(h)(7). PUC section 398.4(h) describes what should be included in the PCL, including fuel type (398.4(h)(1-6)). Section 398.4(h)(7) requires the inclusion of unbundled RECs in the label in a format determined by the CEC. However, it also contains the following statement: "A retail supplier may include additional

information related to the sources of unbundled renewable energy credits.” This is not a provision that is “outside the label,” this is wholly within the guts of the label. The PSD regulations should make clear that load serving entities can include a footnote further describing their unbundled REC procurement within the label, if desired.

If the CEC reverses course and includes the footnote above as recommended by SMUD, we would likely see no need for an additional footnote or additional information in the label. However, if the CEC maintains their current direction, SMUD intends to include in our PCL going forward information that we believe accurately describes our unbundled REC procurement, similar to our proposed footnote, and also including the underlying renewable sources of our unbundled REC procurement.

H. Eligible Renewables and Reporting.

SMUD is appreciative of the Third Proposal’s discussion of reducing reporting requirements. However, SMUD opposes moving away from the statutory definition of “eligible renewable” to the more constrained and smaller set of resources proposed in the Third Proposal – those resources that not only meet the statutory definition, but also have been “RPS-certified” by the CEC.

The PSD/PCL process covers both RPS and non-RPS procurement of renewables. For example, a voluntary green power program may procure RECs, bundled or unbundled, from “eligible” solar, wind, etc. renewables where the underlying generator has not and does not need to be certified for the RPS – because the procurement is not for the purpose of RPS compliance. Hence, SMUD suggests striking the last paragraph of the “Fuel Mix Reporting” section of the Third Proposal, on page 16, as follows:

~~Finally, staff proposes to clarify that eligible renewable generators must be certified under California’s RPS Program to be classified as “Eligible Renewable,” as defined by Public Utilities Code 398.4 (h), in the fuel mix. Electricity purchases from renewable facilities that do not meet this requirement will be classified as “Other” in the fuel mix.²⁵~~

It does not make sense to include non-RPS solar, wind and other procurement in the “Other” category with Petroleum fuels. Renewables and oil do not mix.

With respect to resource IDs, SMUD suggests that the “WREGIS ID” will be the most common ID available for renewable procurement, as this is generally available both for the RPS and voluntary green pricing procurement (which can include RPS-certified renewables and non-RPS certified renewables). Hence, SMUD suggests that the PSD regulations, if they are to require IDs at all, should allow retail sellers to supply either the WREGIS or RPS IDs for renewable generators, and EIA ID numbers if available (for some sources such as smaller photovoltaic resources these will not be available).

I. Conclusion.

SMUD again appreciates the opportunity to provide comments regarding the Third Proposal and looks forward to continued discussion with CEC staff as the AB 1110 implementation proceeds. While outside the scope of the PSD/PCL process, SMUD cannot resist pointing out that the logic underlying the structure in the Third Proposal would be problematic if applied in similar consumer-facing instances.

For example, if the actual, direct, or delivered power used for conferences and meetings was required to be used to reflect the GHG emissions associated with the events, then procuring offsets to “zero-out” the associated GHG impacts would be nonsensical. Everyone understands, when procuring these offsets, that actual electricity is used at the events with actual emissions depending on the local mix, and understands that buying the offsets does not change that – it just “adds” a procured reduction elsewhere to offset those actual emissions. The logic of the Third Proposal would require the organizers to tell attendees what the actual emissions are and put in a footnote that some other “investment” was made.

Similarly, if one is offered the ability to procure offsets to zero-out GHG emissions for travel on a plane, the Third Proposal logic would indicate that you have to tell people that in truth the plane is still burning jet fuel – you will not change that when you spend your money, you will just be “offsetting” those GHG emissions with reductions elsewhere. While that may be considered to be transparent, it also borders on condescension.

Also, the State’s SB 1 program and net-metering requirements therein under the Third Proposal’s logic should have carried the message that anyone putting on solar to zero-out their electricity bill and get to zero-GHG responsibility for their home electricity use actually has GHG emissions reflecting the mix of energy that they procured at night from the grid, along with a ‘thank you but you do not get credit’ for delivering the zero-GHG solar energy on their house during the day. These customers are effectively using the grid like a battery, storing their excess solar during some hours on the grid and pulling that excess back out when their system is not meeting their load. The use of this “virtual” battery should be treated consistently with using an on-site battery.

Bringing this logic back into the PSD/PCL scope, consider a small retail seller that procures all power for its customers from a local solar resource. Unless there is sufficient local storage, that retail seller will be – like an individual PV owner – effectively using the grid as a battery – selling the excess solar generated during the day and procuring grid power to actually serve their customers during the night. Consider these three procurement models for this retail seller:

- The solar resource is located within the retail seller’s service area. By definition, the resource is “delivered” power, so the retail seller would be allowed to report 100% solar and zero-GHG intensity on the PCL despite the fact that grid or “substitute” power is procured at night. If the retail seller is not allowed to take full

credit for the solar generation and sell the excess as null power, its customer procurement is devalued. The retail seller's customers should not be forced to "give" their procured solar generation to the grid without compensation.

- The solar resource is located outside the retail seller's service area, but still within a California Balancing Authority area, and the RECs and power is procured, but the power is not "delivered" to the retail seller's customers, it is rather sold wholesale where located. By definition, the resource is "delivered" power, so the retail seller would be allowed to report 100% solar and zero-GHG intensity on the PCL, despite the fact that grid or "substitute" power is procured for the entire amount of retail sales. If the retail seller is not allowed to take full credit for the solar procurement and sell the power off as null power, its customer procurement is devalued. The retail seller's customers should not be forced to "give" their procured solar generation to the grid without compensation. There is, of course, absolutely no overall change in GHG emissions between these first two procurement models.
- The solar resource is located outside the retail seller's service area, but still within a California Balancing Authority area, and the retail seller merely procures the RECs, leaving the power to be sold wholesale where located rather than "delivered" to the retail seller's customers. By definition, this procurement is *not* "delivered" power, so the retail seller would *not* be allowed to report 100% solar and zero-GHG intensity on the PCL, *nor would anyone else procuring the null power*. There is, of course, absolutely no overall change in renewable generation or GHG emissions between this model and the first two procurement models, but the Third Proposal treats this model by devaluing the renewable procurement for PSD/PCL purposes, and allowing no one else to claim that value. It simply, unfortunately, gets lost.

/s/

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