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California Energy Commission
Dockets Office, MS-4
Re: Docket No. 11-RPS-01
1516 Ninth Street
Sacramento, CA 95814-5512

Re: 33% Renewables Portfolio Standard; Comments of Pacific Gas and Electric Company on the “Publicly Owned Electric Utility Regulations Concept Paper”

Pacific Gas and Electric Company (“PG&E”) appreciates the opportunity to provide comments on the “33 Percent Renewables Portfolio Standard [(“RPS”)] Publicly Owned Electric Utility [(“POU”)] Regulations Concept Paper” (the “33% Concept Paper”) issued by the California Energy Commission (“Commission”) on August 26, 2011.

I. INTRODUCTION

These comments build upon PG&E’s July 8, 2011 Scoping Comments on the Commission’s Implementation of SB 2 (1x).^{1/} As noted there, PG&E believes that the Commission’s top priorities in this proceeding should be to issue joint or harmonized and closely coordinated regulations with the California Public Utilities Commission (“CPUC”) regarding key commercial issues and definitions applicable to all RPS-obligated load-serving entities (“LSEs”) so that the market for RPS-eligible products can continue to develop and provide the lowest-cost renewable power. Once these critical commercial issues have been addressed, the Commission and the CPUC should implement the remaining provisions of the 33% RPS legislation keeping in mind the legislature’s intent, expressed clearly in the new statute, to create a level playing field in which all but a very few California LSEs are subject to the same RPS requirements.

While the Commission has a special and enhanced role under SB 2 (1x) to regulate POU compliance with the RPS, and while PG&E recognizes the POU’s need for near-term guidance from the Commission so that the POU can create their RPS plans and compliance strategies as

^{1/} Senate Bill 2 (2011-12 First Extraordinary Session, Stats. 2011, Ch 1).

required by the new legislation, PG&E is concerned that the Commission has established too narrow of a scope in the 33% Concept Paper. In particular, the Commission continues to have RPS verification responsibilities under SB 2 (1x) with regard to all LSEs, not just POU, and therefore the focus in the 33% Concept Paper on POU implementation needs to be broadened to include both regulatory oversight of the POU and verification of product content requirements and compliance for all LSEs, including investor-owned utilities (“IOUs”), electric service providers (“ESPs”), and community choice aggregators (“CCAs”).

California renewable energy market participants urgently need the Commission to issue eligibility and verification regulations to allow LSEs to categorize output from RPS-eligible facilities under the new product content requirements. The 33% Concept Paper should be amended to confirm that such guidance and the necessary protocols are included within its scope and are considered top priorities for the Commission’s implementation of SB 2 (1x). The scope of the first phase of this proceeding should also include consideration of any necessary changes to the Western Renewable Energy Generation Information System (“WREGIS”) to implement the new portfolio content requirements.

PG&E responds in Section II below to each of the specific topics outlined in the 33% Concept Paper. In doing so, PG&E assumes that the scope of this proceeding includes providing uniform guidance to all LSEs on RPS verification and eligibility. PG&E strongly recommends that the Commission issue a joint regulation with, or closely coordinate and harmonize its decisions with, the CPUC in its Rulemaking 11-05-005, in which parties have briefed many of the same issues. PG&E is incorporating by reference its earlier comments in the CPUC proceeding, and its comments here reflect its comments to the CPUC.^{2/}

A. Summary of PG&E Proposals with Regard to RPS Targets, Banking, and Enforcement

Although each of these topics are discussed more fully below, PG&E provides the following brief summary of its proposals and positions with respect to key 33% RPS implementation issues that impact all LSEs.

- **Procurement Targets**: Reasonable progress targets for the intervening years

^{2/} See Pacific Gas and Electric Company’s Comments on Administrative Judge’s Ruling Requesting Comments on Implementation of New Portfolio Content Categories for the Renewable Portfolio Standard Program, filed in CPUC Rulemaking (“R”).11-05-005 on August 8, 2011, available at <http://docs.cpuc.ca.gov/efile/CM/141097.pdf>; PG&E’s Reply to Opening Comments Regarding Implementation of New Portfolio Content Requirements, filed in R.11-05-005 on August 19, 2011, available at <http://docs.cpuc.ca.gov/efile/CM/141747.pdf>; PG&E’s Opening Comments on Administrative Judge’s Ruling Request Comments on New Procurement Targets and Certain Compliance Requirements for the Renewables Portfolio Standard Program, filed in R.11-05-005 on August 30, 2011, available at <http://docs.cpuc.ca.gov/efile/CM/142569.pdf>; PG&E’s Reply to Opening Comments Regarding New Procurement Targets and Certain Compliance Requirements for the RPS Program, filed in R.11-05-005 on September 12, 2011 (link to reply comments not yet available).

of multi-year RPS compliance periods under SB 2 (1x) should be set for all LSEs using the same methodology. In recognition of the non-linear nature of renewable energy development, the Commission and the CPUC should set reasonable progress targets in the second and third compliance periods based upon 1% increases in 2014-2015 and 2017-2019 that jump in the final year of each compliance period to the statutory reasonable progress goals for those periods.

- **Banking under the 33% RPS program**: POU and retail sellers should be subject to the same banking limitations. The Commission should determine whether POU contracts have durations of 10 years or more by looking at the time between commencement of deliveries under the contract and the expiration of the obligation to deliver under the contract, including any option to extend deliveries. This determination should be made without regard to whether the contract was actually terminated prior to expiration or whether delivery volumes vary during the contract term. Additionally, the Commission should allow contract terms to be aggregated under certain conditions where multiple contracts between the same counterparties establish a continuous relationship. Because Bucket 3 products^{3/} can never be counted as excess procurement, these products should not be deducted from procurement totals when calculating surpluses that may be banked between compliance periods. Finally, in order to harmonize the banking provision in SB 2 (1x)^{4/} with the statutory 36-month “trading life” of a REC before it must be retired for use toward RPS compliance,^{5/} the banking provisions should only apply to RECs that are retired in the Western Renewable Energy Generation Information System (“WREGIS”) for use in a particular RPS compliance period.
- **Enforcement Issues**: The Commission may not enforce the reasonable progress targets set for any individual intervening year, including the final year, of a multi-year 33% RPS program compliance period. Rather, compliance must be assessed based upon an LSE’s demonstration that it has procured qualifying products equal to the aggregated total associated with each of the years within a multi-year compliance period by the end of the compliance period.

^{3/} Bucket 3 Products refer to those defined at Section 399.16(b)(3). This all subsequent references in this brief to codified sections are to the California Public Utilities Code as amended by SB 2 (1X), unless otherwise noted.

^{4/} Section 399.13(a)(4)(B).

^{5/} Section 399.21(a)(6).

B. Stakeholder Meetings on 33% Implementation and the Product Content Requirements Reference Proposal

PG&E has met informally with a diverse group of parties to the CPUC’s 33% RPS implementation rulemaking to discuss the highest priority 33% RPS implementation issues. As a result of one of these discussions, the parties agreed to the table attached as Appendix A to this letter (the “Reference Proposal”) to describe how the product content requirements (also referred to below as “Buckets”) should be interpreted, and also where the parties could not agree on an interpretation.

PG&E provides the following summary of its position with respect to the “Open Issues” identified in the Reference Proposal:

Open Issue (No Consensus) Identified in the Reference Proposal at Appendix A	PG&E’s Proposal On the Issue
Should the CPUC establish a standard in advance for identifying future or additional California Balancing Authorities (“CBAs”) now, or should that process wait until there is some change in the current CBA lineup?	Any balancing authority that has at least 50% of its load located within California should be designated a CBA. These should include, at a minimum, the five balancing authority areas identified by the stakeholders in Appendix A. In addition, any LSE should be able to seek a Commission determination through the product content category certification process for any specific RPS Power Purchase Agreement (“PPA”) that any other balancing authority qualifies as a CBA under this standard. Modifications to any CBA that disqualify it as a CBA should only impact prospective procurement; any procurement from resources that are directly interconnected to a balancing authority that has been designated a CBA at the time of contract execution and certification should continue to qualify in Bucket 1 through the original term of the contract.
Do RECs associated with generation within a CBA area that serves load “behind-the-meter” (ie., CSI/NEM or industrial RPS generation serving on-site load) qualify as Bucket 1 if	“Behind-the-meter” Renewable Energy Credits (“RECs”) generated by a facility interconnected to a CBA should qualify as

Open Issue (No Consensus) Identified in the Reference Proposal at Appendix A	PG&E's Proposal On the Issue
they are sold (unbundled) to a (1) the retail seller that is also buying the energy, or (2) another RPS-obligated retail seller?	Bucket 1 products regardless of the buyer.
In general, should the "bucket" attribute of a REC remain with the REC until it is retired for compliance, no matter how many times it is traded as an unbundled product in the secondary market? If so, how can the bucket attribute of a REC best be tracked?	Yes, the Bucket attributes of a REC should remain with the REC until it is retired for RPS compliance. These attributes should be tracked through designations on the WREGIS certificates, which will require modifications to the WREGIS system.
[For purposes of calculating the volumes of Bucket 1(c) products,] [o]ver what period of time may the facility's meter data be netted against the final adjusted E-tags from the contract? Hourly? Monthly?	As described more fully below and illustrated in the example provided at Appendix B to this letter, the calculation should be done on a monthly net basis.
What additional technology, data, or systems, if any, are needed to track, compute, and produce for verification these comparisons of meter data with final adjusted E-tags? How does the answer to this question impact the feasibility or reasonableness of any particular netting period, as discussed in the bullet above?	It is likely that current systems and data would allow a calculation on a total monthly net basis. Comparisons on an hour-by-hour basis may require additional database tools and services.

Open Issue (No Consensus) Identified in the Reference Proposal at Appendix A	PG&E's Proposal On the Issue
What is the definition of "incremental electricity?"	Consistent with the concept of incremental procurement contained in Section 399.16, "incremental electricity" should mean any contract executed after June 1, 2010.
Are there any additional attributes or contract structures that must be included to qualify procurement as a "firmed and shaped" product (i.e., concurrent procurement, fixed price agreement, etc)?	No. "Firmed and shaped" products are those that involve the use of substitute energy to more efficiently and conveniently deliver imports into a CBA. There is no statutory basis for requiring such contracts to have fixed prices, to be executed at a specific time, to have a certain term, or to have any other specific relationship to the RPS-eligible generation that created the RECs that are tagged to the substitute energy.
Should there be a grace period beyond the calendar year during which the tagging process [for Bucket 2 products] may be "trued up?"	Having such a grace period may be necessary and advisable in order to address lags in the WREGIS and data generation process.
Must the term of the firming and shaping agreement described in the first illustrative contract structure [in the Bucket 2 row of Appendix A] match the term of the RPS PPA producing the RECs?	No. In PG&E's significant experience negotiating firming and shaping agreements, some types of long-term firming and shaping services are simply not commercially available. California LSEs need the flexibility to match RECs with firmed and shaped substitute energy on an ongoing basis.
What other contract structures or variations on the consensus contract structures qualify as bucket #2?	So long as a REC is tagged to an import that is procured under a contract executed after June 1, 2010, and so long as both the imported

Open Issue (No Consensus) Identified in the Reference Proposal at Appendix A	PG&E's Proposal On the Issue
	electricity and the REC were generated within the same calendar year, the result should be a Bucket 2 product. This basic definition will provide flexibility for a variety of contract structures.

C. Jurisdiction of the Commission and the CPUC with Respect to 33% RPS Implementation

As a threshold matter, the Commission and the CPUC need to issue regulations or decisions that clearly and harmoniously establish their respective jurisdictional responsibilities with respect to the determination and verification of the product content requirements for retail sellers. As discussed in detail below, SB 2 (1x) grants the Commission exclusive jurisdiction with regard to these questions, heightening the importance of this proceeding and the 33% Concept Paper for retail sellers.

Consistent with the statutory division of jurisdiction between the CPUC and the Commission, the Commission has exclusive jurisdiction to verify each LSE's post-contracting determinations regarding the appropriate portfolio content category of the products that the LSE retires in WREGIS for purposes of RPS compliance in each compliance period. The Commission should have a corresponding right to audit an LSE's calculation methodologies and supporting documentation to determine the product content categorizations. Because the Commission will verify and, if necessary, audit, these determinations, the Commission should also certify an LSE's proposed methodology to determine whether and how a specific proposed transaction will result in certain products under Section 399.16(b).

PG&E submits that, with regard to retail sellers, the best process to provide such a certification or advance determination on product content categories would be analogous to the current Commission/CPUC interaction to verify the eligibility of firming and shaping structures under the Commission's RPS Eligibility Guidebook (the "Guidebook"). Under this existing process, PG&E submits an advice letter to the CPUC seeking approval of a firming and shaping transaction and describes in that advice letter the delivery structure with reference to the Guidebook. The CPUC then requests a letter from the Commission confirming eligibility of the delivery structure, and the CPUC relies upon and attaches the Commission's confirmation letter when issuing the Commission's resolution approving the transaction. WREGIS then has additional rules to ensure that the eligibility requirements are confirmed by the program administrator (*e.g.* the Commission) prior to designating such program eligibility on WREGIS certificates for the facility. Such certificates are relied upon by the Commission during its

ultimate verification of the amount of RPS-eligibility energy each retail seller may claim. Once the Commission verifies PG&E's accounting of these WREGIS certificates, PG&E submits a Verified Compliance Report to the CPUC, which has jurisdiction to address any shortfalls in procurement.

PG&E believes that the same process should be followed for the classification, verification, and reporting of the new product content category "Buckets." This process provides as much regulatory certainty as is possible at the time of contract approval, while recognizing that a final determination regarding classification may not be able to be made until after generation actually takes place. The process also maximizes administrative efficiency by ensuring that the CPUC and the Commission are each involved to the extent necessary to carry out their respective roles and responsibilities under the statute, without duplicating or conflicting in their work.

The Commission's role in verifying and auditing, when necessary, product content category determinations is a natural and statutorily-required extension of its existing RPS compliance verification process. The Commission currently verifies overall RPS-eligible energy deliveries as well as deliveries into California from firmed and shaped products. For Bucket 1(c) and Bucket 2 transactions, an LSE should be required to retain its calculations and supporting documentation (e.g., NERC E-Tags ("E-Tag")^{6/} and Meter Data) to allow the Commission to audit the LSE's portfolio content requirement compliance showing. Once the actual quantities of deliveries in each category are verified by the Commission (culminating in the issuance of a Verification Report for each compliance period), then that information would be incorporated by retail sellers into their respective verified RPS Compliance Reports for the CPUC's review and, when necessary, further action to address shortfalls.^{7/}

The Commission's exclusive role in verifying the RPS requirements, including the product content requirements, flows from the language and structure of the RPS statute. Section

^{6/} "E-Tag" refers to the electronic tagging functional specifications as dictated by NERC and the North American Energy Standards Board ("NAESB"). NERC and NAESB together oversee E-Tagging functional specifications under the Joint Electronic Scheduling Subcommittee. A publicly-available version of the E-Tag Specifications may be found at: http://www.naesb.org/weq/weq_jiswg_etag_1.8.asp. Current E-Tagging specifications require the E-Tag author to enter a Source, which indicates the actual generation source, and a Sink, which shows the final point of delivery for the energy. If the Source only identifies a power system or trading hub, the e-Tag Physical Path Miscellaneous Field can be used for Source identification, similar to the current process used by the IOUs for tracking renewable imports. In all cases, the e-Tag provides necessary Source-to-Sink tracking capability for energy deliveries to California regardless of transmission quality, dynamic transfer or firming and shaping arrangements. E-Tags are a firmly established and rigorous system for accurately documenting flows of power.

^{7/} The statutory scheme grants the Commission and the California Air Resources Board with jurisdiction over these verification, audit, and enforcement responsibilities for the POUs.

399.25 (which amends existing Section 399.13) requires that the Commission both certify the eligibility of renewable generating facilities^{8/} and implement WREGIS to:

verify compliance with the renewables portfolio standard by retail sellers and local publicly owned electric utilities . . . to certify renewable energy credits produced by [ERRs], and to verify retail product claims in this state or any other state. In establishing the guidelines governing [WREGIS], the [Commission] shall collect data from electricity market participants that it deems necessary to verify compliance of retailers sellers and local publicly owned electric utilities^{9/}

The same Section goes on to require the Commission to “establish a system for tracking and verifying [RECs] that, through the use of independently audited data, verifies the generation of electricity associated with each [REC] and protects against multiple counting of the same [REC].”^{10/}

The “renewables portfolio standard” for which the Commission is required to verify compliance is further defined in the statute as the requirement that “all retail sellers [] procure a minimum quantity of electricity products from eligible renewable energy resources as a specified percentage of total kilowatthours sold to their retail end-use customers each compliance period to achieve the targets established under this article.”^{11/} The “article” referred to in this quotation is Article 16 of the Public Utilities Code, which includes the product content requirements in Section 399.16. Thus, the statute grants the Commission the jurisdiction and authority to verify compliance with the overall RPS targets in Section 399.15 and the product content requirements in Section 399.16.

In order to implement its product content verification responsibilities, the Commission should modify WREGIS to enable the tracking of the Bucket attribute of each REC in the WREGIS Certificate so that as it is traded from one party to another, it maintains the original attribute. The Commission will also likely need to develop additional or modified procedures in its RPS Eligibility Guidebook to assist LSEs and other market participants in determining, tracking, and seeking certification of product content categories.

II. COMMENTS ON SPECIFIC ISSUES RAISED IN THE 33% CONCEPT PAPER

PG&E’s responses in this section refer to the questions and options outlined in the 33% Concept Paper. For brevity, PG&E has repeated here only the title of each outlined issue.

^{8/} Section 399.25(a).

^{9/} Section 399.25(b).

^{10/} Section 399.25(c).

^{11/} Section 399.15(a).

A. Foundational Issues

The use of the phrases “consistent with” and “in the same manner as” in the POU-related provisions of SB 2 (1x) when referring to the retail seller provisions indicates the Legislature’s intent to create a level playing field for RPS-obligated LSEs. Different POU requirements for banking, enforcement waivers or deferrals, and cost limitations would fail to ensure that such requirements are “consistent with” or applied in “the same manner” as those for other LSEs, as required by the statute.^{12/} Moreover, the goal of efficient use of regulatory agency resources weighs heavily in favor of defining a single set of rules for all California LSEs, other than the very few exceptions clearly spelled out in the statute, rather than having two different agencies crafting different interpretations of the same statutory language. Finally, the need for the development of an efficient renewable energy market demands consistent definitions for RPS-eligible products for all RPS compliance purposes. Having different definitions of “firmed and shaped” products, for example, would massively complicate the ability of renewable developers to participate in California’s market, thereby increasing the ultimate expense of the RPS program borne by California electricity consumers.

PG&E is not opposed to the Staff recommendation of Option (3) for this issue, but it should be made clear that the bar is extremely high, and the burden is on the requesting POU, to establish that it is impossible, or technically infeasible, to apply the same retail seller requirement to a POU. Stakeholders, including retail sellers, should be afforded an opportunity to comment on any such exception sought by a POU. Only in extreme circumstances, if any, in which the statutory command of applying the “same” requirements would lead to patently absurd results, would a different requirement for POU be legally permissible and appropriate.

B. Eligibility of Resources

PG&E agrees with Staff’s recommendation that for purposes of Section 399.12(e)(1)(C), a resource must meet the Commission’s eligibility requirements that are applicable at the time that the resource applies for RPS certification. This will also necessarily mean that the resource meets the definition of an RPS-eligible facility in Section 25741, since the Commission requirements must comply with that statutory provision.

^{12/} See generally *id.* § 399.30(d).

C. Classification of Procurement Products

1. Portfolio Content Categories
 - a. Portfolio Content Category 1 (aka Bucket 1)
 - (1) Definition

As more fully described in the Reference Proposal at Appendix A and PG&E's comments before the CPUC that are incorporated herein by reference, Bucket 1 products include those described in options (i), (iv), and (vi) of the 33% Concept Paper, with the following comments and modifications.

The description in option (iv) of the 33% Concept Paper of what the Reference Proposal refers to as "Bucket 1(c)" products is incomplete because it does not include the statutory requirement that such products be delivered without the use of substitute energy other than ancillary services used to firm an hourly or intra-hourly schedule.

Because Bucket 1(c) products are the most difficult of the new products to define and verify, PG&E's comments in this section will focus on defining them. Bucket 1(c) products must originate from a Commission-certified eligible renewable electricity resource ("ERR"), which means that the source generator may be located anywhere within the WECC. Once generated, the phrase requires that the product be "scheduled" into a California Balancing Authority ("CBA"). Because only electricity is scheduled, it may be inferred that a Bucket 1(c) product must include electricity when it is procured for the first time by a California LSE. Furthermore, since other Buckets directly address electricity that is generated within CBAs, and because the Bucket 1(c) language refers to the lack of substitute electricity, it may be also inferred that the product described by this phrase refers to imports of electricity into a CBA.

Thus, in order to qualify as a Bucket 1(c) product, the electricity generated by an RPS-eligible out-of-CBA generator must be scheduled directly into a CBA. However, because all scheduled electricity is not always actually delivered and because deliveries made according to the schedule may actually include ancillary energy generated by conventional resources in order to maintain the schedule, this phrase requires the development of additional tracking processes. First, the final adjusted NERC E-Tag associated with the generation from the RPS-eligible resource to the CBA sink will show the amount of energy associated with the facility actually scheduled and delivered. This delivered energy must then be compared over the same time period with the amount of electricity actually generated by the RPS-eligible resource, which can be determined using data from the generation meter located at the facility.^{13/} The lesser of the scheduled electricity and the actually generated electricity over the same time period will be the electricity that was both scheduled and delivered without substitution, and thus will qualify as

^{13/} California LSEs will need to require sellers to furnish this data to the LSEs under future RPS contracts to ensure that the LSE can perform the required comparison.

Bucket 1(c) product. PG&E is providing an example of its proposed Bucket 1(c) tracking methodology at Appendix B.^{14/}

It is worth noting that the Bucket 1(c) statutory language includes energy scheduled through an intermediate balancing authority before being imported into a CBA, so long as the schedule is maintained from source to sink and the comparison with generated electricity tracks and verifies the lack of substitute energy in the transaction.

Nothing in the statutory phrase dictates any particular quality or type of transmission in order for the importation of electricity to qualify as this product content category. Thus, while uses of “firm transmission” may be one way in which a seller could attempt to ensure that its generation is actually delivered according to schedule, the Bucket 1(c) statutory language allows deliveries to qualify even if delivered using “non-firm” transmission rights, so long as the final adjusted E-Tags and meter data confirm the lack of substitute energy.

The Reference Proposal at Appendix 1 provides a broad consensus statement of what types of products should qualify in Bucket 1(c) and adopts the same tracking and verification process described above.^{15/} The Reference Proposal also provides two example contract/scheduling structures and the accounting methodology that should be used to track and verify Bucket 1(c) credit under each such structure. The key open issues, as shown in Appendix A, are the time period over which E-Tags should be “netted” against metered generation for determining the amount of scheduled energy that actually arrives in a CBA without the use of substitute energy and the systems that would need to be in place to ensure that tracking and verification is feasible and not unduly burdensome.

For purposes of classifying products into Bucket 1(c), the Commission should allow LSEs to perform the required comparison of E-Tags with metered generation on a monthly net basis. Thus, an LSE would be responsible for comparing the total metered generation for a calendar month from a specific non-CBA generator with the final, adjusted E-Tags showing the scheduled deliveries in the same calendar month, and the lesser of the two should count in Bucket 1(c). This approach is illustrated in the example calculation methodology provided at Appendix B. Because existing services and systems are not set up to provide an hour-by-hour comparison of these data sets, this proposal will further the public policy goal of easing the

^{14/} Appendix B shows an example of a delivery/contract structure that may result in Bucket 1(c), 2, and 3 products from the same facility. In circumstances that limit an RPS-eligible generator’s ability to actually deliver electricity into a CBA according to its schedule, the California buyer of the energy may still acquire the RECs and substitute energy, either under the original RPS-eligible procurement agreement or pursuant to a separate incremental electricity importation agreement for deliveries in the same calendar year. As more fully discussed below, the RECs that could not be delivered with the originally-generated electricity may be associated with incremental imported electricity via E-Tag and thereby qualify as “firmed and shaped” Bucket 2 products. Appendix B also shows that RECs associated with generation that could not be delivered as scheduled and also are not E-Tagged to incremental imports within the same calendar year would qualify as Bucket 3 products.

^{15/} See Appendix A at 5-6.

verification of categorization of RPS procurement and avoiding the creation of unnecessary transaction costs by requiring LSEs to create or contract for new database systems.

- (2) Minimum Percentage of reduction of procurement content requirement, upon successful application by POU, applied to Bucket 1.

PG&E agrees with the Staff recommendations that in the first two compliance periods, there is no specified limit on the reduction allowed in Bucket 1 pursuant to an LSE petition under Section 399.16(e). Although each such petition should be reviewed on a case-by-case basis, the criteria used by the Commission and the CPUC to evaluate such petitions should be consistent and harmonized to ensure that all LSEs are treated in the same manner.

- (3) Determination that generation belongs in Bucket 1.

PG&E agrees with the Staff recommendation that LSEs designate products initially as belonging in certain Buckets, and this initial designation should be subject to after-the-fact verification by the Commission. For certain products, including those in Buckets 1(a) and 1(b) (as described further in the Reference Proposal at Appendix A), the Commission should be able to approve the Bucket designation of the output based upon a diagram and description of the contract structure submitted to it by the LSE. So long as the actual deliveries occur consistently with the diagram and description provided in advance, the Commission's advance determination or certification should be conclusive as to both the Commission and the CPUC. With regard to other products, like those in Buckets 1(c), 2, and 3, the Commission should approve a calculation methodology to track the output of a particular facility that will qualify in each of the Buckets. Again, so long as the LSE then uses the approved calculation methodology, the advance determination should be conclusive. PG&E has provided an example calculation methodology at Appendix B.

b. Portfolio Content Category 2 – firmed and shaped incremental

- (1) Definition

- (a) Location of renewable resource interconnection

A facility producing Bucket 2 products will not be interconnected to a CBA. Any facility interconnected to a CBA will, by statutory definition, produce Bucket 1 products.^{16/}

^{16/} See Section 399.16(b)(1)(A).

(b) Timing of incremental electricity resource scheduling into a CBA

For purposes of tracking products that qualify in Bucket 2, the Commission should interpret “firmed and shaped” as meaning any incremental import of electricity to which a REC is tagged (through the assignment of the CEC ID of the RPS-eligible generator in the WREGIS certificate of the REC) within the same calendar year that both the REC and the substitute energy were generated. This definition for firmed and shaped will result in least-cost, best-fit procurement. First, it will allow procurement at the lowest product and transactional costs because it does not require LSEs to contract around any artificial constraint or pay for attributes of the incremental electricity import that will necessarily increase the price. Second, PG&E’s proposal allows for procurement that best fits PG&E’s portfolio because it gives LSEs the freedom to procure incremental imports arriving at the place and time when they are most needed to meet load. In this way, PG&E can convert low portfolio-fit output from an RPS generator (e.g., spring off-peak) into high portfolio-fit imports (e.g., summer, super-peak) while still procuring the benefits of RECs from a renewable resource. Finally, PG&E’s proposal is consistent with the current Commission Guidebook energy delivery requirements for firmed and shaped import transactions and with the corresponding functionality within WREGIS.^{17/}

(c) Renewable resource type

Both intermittent and non-intermittent resources should be permitted to generate Bucket 2 products. SB 2 (1x) does not require that a resource be intermittent, only that it be firmed and

^{17/} Although many portions of the Guidebook are focused narrowly on the previous delivery requirement in the RPS Program and the need to procure “bundled” products, both of which requirements have been superseded by the provisions of SB 2 (1X), the Guidebook’s (January 2011 Edition) general description of “firming and shaping” at pages 37-38 remains relevant and was available to the legislature at the time it employed these terms in SB 2 (1X). Omitting footnotes, including the non-exhaustive list of potential firming and shaping contract structures, that passage states:

In practical terms, out-of-state energy may be “firmed” or “shaped” within the calendar year. Firming and shaping refers to the process by which resources with variable delivery schedules may be backed up or supplemented with delivery from another source to meet customer load. . . .

. . .

The retail seller or procurement entity may document delivery of electricity from any control area operator (also referred to as “balancing authority”) in the WECC transmission system outside California, and the delivered electricity may originate from a control area that is different from that in which the RPS-certified facility is located. The electricity delivery may occur through typical delivery arrangements, such as through wheeling across multiple control areas, and the delivery may occur at any delivery point into California.

shaped with incremental electricity. “Baseload” resources intended to produce Bucket 1(c) products may encounter transmission congestion that require their generation to be matched with deliveries on a longer timeframe. If that timeframe is longer than a calendar month, but within a calendar year, then they should qualify as Bucket 2 products.

(d) Incremental resource

“Incremental electricity” is a statutory phrase used in defining products that qualify in Bucket 2. In the same section of SB 2 (1X) that defines Bucket 2, the statute uses a specific date – June 1, 2010 - after which any procurement will be considered incremental for purposes of the product content requirements.^{18/} Because PG&E is unaware of any technical definition of the phrase “incremental electricity” that has been adopted by the CPUC or the Commission or is otherwise generally recognized within the electric generation industry, PG&E proposes that the Commission define “incremental” consistent with the remainder of Section 399.16 by adopting the date of June 1, 2010. Thus, the test of whether any particular electricity that an LSE proposes to associate with a REC generated outside of a CBA is “incremental” should be whether the contract under which the electricity was procured was executed and added to that LSE’s portfolio after June 1, 2010.

This definition of “incremental” allows for a variety of contract structures. For example, Appendix B illustrates that for a contract entered into after June 1, 2010, the “Monthly Excess Brown Energy” represents “incremental” energy that is tagged to RECs to become Bucket 2 product. As another example, an LSE could enter into a contract on March 1, 2012 for 100 MWh of unbundled RECs generated by a non-CBA ERR. The LSE could separately procure 100 MWh of electricity from a non-CBA resource for delivery in Summer 2012 under a contract executed after June 1, 2010. If the CEC ID of the non-CBA ERR is added to the E-Tag of the substitute energy imports by December 31, 2012, the RECs would qualify as Bucket 2 firmed and shaped products.

(e) Location of incremental resource relative to renewable resource

A resource providing “incremental electricity” need not be located within the same balancing authority as the RPS-eligible resource generating the RECs, nor need the two facilities have any other relationship other than the tagging of the RECs to the electricity imports within WREGIS.

There is no statutory basis to impose any specific requirements regarding the relationship between the substitute energy and the RECs to which they are tagged. Incremental energy generated at any location provides the same value once it has been imported into California, and so there is no basis upon which to require the substitute energy and the REC to which it is associated to be generated in the same physical area. Furthermore, PG&E’s proposed definition

^{18/} See Section 399.16(c), (d).

of incremental electricity depends solely on the contract structure. So long as the import is provided under a contract executed with a particular LSE after June 1, 2010, any other “characteristic” of the energy should be irrelevant. Beyond the lack of statutory support for any other such required relationships, any additional requirements for defining incremental electricity will significantly complicate the administration of the statute, thereby reducing transparency.

(f) Execution of incremental resource contract

As noted above, to qualify as “incremental,” a contract for an electricity import must have been executed after June 1, 2010, which is the date adopted in SB 2 (1x) to distinguish grandfathered contracts from those that are incremental under the 33% program.

(g) Contractual relationship between renewable and incremental resources.

For the reasons noted above, no contractual relationship between the resources is necessary or required by the statute.

(2) Determination that generation belongs in Bucket 2

PG&E agrees with the Staff recommendation on this point, but references the discussion above regarding the method for seeking advance Bucket determinations from the Commission. In addition, for Bucket 2 products, so long as they are defined as PG&E has proposed, WREGIS currently has the functionality to determine whether E-Tags and WREGIS Certificates have been matched on a calendar-year basis, and will therefore be able to automate and streamline the verification process.

c. Portfolio Content Category 3

(1) Definition

Bucket 3 products are simply those that do not qualify as Buckets 1 or 2. An unbundled REC should not automatically be classified as a Bucket 3 product. Section 399.16(b)(1), which defines Bucket 1, includes transactions that transfer only RECs if the underlying resource creating the REC has a first point of interconnection with a CBA or has a first point of interconnection with distribution facilities used to serve end users within a CBA. The criterion to be included in Bucket 1 is that the underlying energy from the renewable energy resource is delivered into a California balancing or to a distribution system located in California. Whether the associated transaction is for an unbundled REC does not impact eligibility for Bucket 1.

PG&E offers the following two specific examples of transactions that should qualify as Bucket 1 even though the buyer is purchasing unbundled RECs only. First, if an LSE buys a bundled Bucket 1 product and then later (within the statutorily-required 3-year period) unbundles the REC and sells the unbundled product to another LSE, the unbundled REC should retain its original Bucket 1 attributes and value. WREGIS functionality should be added to allow the

recording of the Bucket attribute of each REC on its WREGIS certificate to ensure that these attributes can be tracked and verified no matter how many times a REC is traded on the secondary market.

Second, where an LSE purchases RECs from a generator located in a CBA and that generator used the electricity associated with the RECs to serve its own load “behind the meter,” the RECs should retain a Bucket 1 attribute because the generation facility has a first point of interconnection within a CBA. This could involve, for example, procurement of RECs associated with residential solar installations where the generation does not exceed on-site load. Similarly, this type of transaction could involve the purchase of RECs associated with the electricity used by a utility-scale generation facility to serve its own on-site, parasitic load. In either case, the interconnection and delivery structure complies with the criteria in Section 399.16(a)(1)(A), and the resulting RECs should therefore be counted in Bucket 1 even where the first purchaser buys them unbundled.

(2) Determination that generation belongs in Bucket 3

PG&E agrees with the Staff recommendation, with the comment that, as noted above, the Commission should provide a clear mechanism through which LSEs can receive advance determinations that their contract structures, if followed, will meet certain Bucket requirements.

D. Compliance and Verification

1. Verification Process

Given the structure of the statute that conveys the Legislature’s intent that practically all LSEs will be regulated in the same manner, PG&E disagrees with the Staff’s recommendation that POUs should have a separate verification report. In order to provide a comprehensive and consistent verification report for all LSEs and POUs on the same timeline and to facilitate the evaluation of procurement claims where POUs and LSEs have procured from the same renewable resource, PG&E recommends that the Commission include POU verification as part of the existing RPS Verification Report and that the Verification Reports be adopted following the end of each compliance period. Although the final report may only be adopted at the end of each compliance period, PG&E encourages the Commission to issue preliminary drafts for each year as information becomes available so that issues and discrepancies may be researched and evaluated while the information is still current and not too much time has elapsed. Because targets for intervening years are non-enforceable,^{19/} there is no need for a formal verification of each year’s procurement data in a multi-year compliance period.

^{19/} Section 399.15(b)(2)(C).

2. Non-compliance Triggers

PG&E agrees with option (1) identified in the 33% Concept Paper, with the exception that a retail seller's demonstration that it has met its cost cap for the RPS Program pursuant to Section 399.15(c) would also excuse non-compliance.

PG&E does not agree with option (2), since the Bucket requirements are not separately enforceable. Rather, LSEs cannot use RECs associated with Buckets 2 or 3 in excess of the specified percentages in order to comply with the compliance period procurement targets of Section 399.15(b) without an excuse pursuant to Section 399.16(e). The only non-compliance trigger is the failure to meet the compliance period procurement target, and not the separate over-procurement of Bucket 2 or 3 products. This is evident in the statutory structure, which places the enforcement provision in Section 399.15, which relates to the compliance period targets, and not in Section 399.16, which relates to the Bucket requirements. The enforcement provision, at Section 399.15(b)(8), also expressly limits its applicability to the procurement targets set forth in paragraphs (1) and (2) of Section 399.15(b), each of which relates only to the compliance period procurement requirements.

PG&E has no comment at this time regarding options (3)-(6).

3. Criteria and process for determining whether POUs have met procurement requirements

a. Procurement targets for each compliance period

(1) Process used to determine POU compliance

The process used to determine POU compliance should be generally the same as that used for retail sellers. There is no statutory basis for any substantive difference in the criteria or methodology used to determine compliance for different retail sellers, except for the specific statutory exemptions for small and multi-jurisdictional utilities in Section 399.17 and the narrow exceptions for certain POUs in Sections 399.30(h)-(k).

(2) Time period used to determine compliance for compliance period ending December 31, 2016

SB 2 (1x) requires that this compliance period include the time between January 1, 2014 to December 31, 2016, inclusive.^{20/}

^{20/} Section 399.30(b)(2).

- (3) Time period used to determine compliance for compliance period ending December 31, 2020

SB 2 (1x) requires that this compliance period include the time between January 1, 2017 to December 31, 2020, inclusive.^{21/}

- b. Percentage limitations for portfolio content categories

- (1) Portfolio content category 1

As described in the Reference Proposal attached as Appendix A, Bucket 1 contains four discrete types of products, which the Reference Proposal refers to as 1(a), 1(b), 1(c), and 1(d) products, respectively. PG&E's response to this question uses the same naming convention to refer to each specific product type.

1(a) and 1(b) Products

For a Bucket 1(a) transaction (those involving direct interconnection with CBA) or a Bucket 1(b) transaction (involving interconnection with distribution facilities within a CBA), the entity seeking certification should be required to state the point of interconnection and demonstrate that it is within a CBA.

It is important to note that the Staff proposal at subsection (i) of the 33% Concept Paper incorrectly refers to the need to determine whether a product is "bundled." Section 399.16(b)(1) makes no distinction between bundled and unbundled procurement; the key issues are whether the generating facility is interconnected to a CBA, scheduled into a CBA without substitute electricity, or is dynamically transferred.

1(c) Products – Scheduled into a CBA without substitute electricity

Section II(C)(1)(a)(1), above, and Appendix B to these comments shows PG&E's proposal with regard to how to track Bucket 1(c) products. This is consistent with the Staff recommendation in bullet (ii) of this question, although PG&E's response and example provide a greater level of detail. Because WREGIS does not currently have the capability to automate the tracking of these products, and PG&E does not believe it is feasible to expect WREGIS to be able to do so in the near-term, PG&E recommends that each LSE be responsible for initially tracking whether output from a facility intended to produce Bucket 1(c) products is actually Bucket 1(c), Bucket 2, or Bucket 3 products. As the hypothetical example at Appendix B demonstrates, a single facility may create all three such products.

An LSE should be able to seek an advance determination by the Commission that the calculation methodology it intends to use to classify Bucket 1(c) products is acceptable. Once

^{21/} Section 399.30(b)(2).

the actual deliveries are made, an LSE would report to the Commission the resulting Bucket determinations. The Commission would have the ability to audit those determinations for any or all LSEs by requesting the E-Tag and generation meter data for the RPS-eligible resource.

1(d) Products

For a Bucket 1(d) transaction, the stakeholders that created the Reference Proposal agreed that the ultimate demonstration must be an agreement, or the functional equivalent of an agreement, of a dynamic transfer arrangement.^{22/} This is consistent with the Staff recommendation in subsection (iii) of the 33% Concept Paper. Because such an agreement may not yet be executed at the time of PPA execution and filing, the Commission's certification or advance determination of a Bucket 1(d) qualification to the CPUC (for retail sellers) should be conditioned upon actual execution of the agreement. In such a circumstance, the LSE would have to demonstrate that a dynamic transfer agreement, or its functional equivalent, was actually in place in order to receive after-the-fact Commission verification of the 1(d) product deliveries.

(2) Portfolio content category 2

(a) Firm and shaped

PG&E supports Option 2 outlined in the 33% Concept Paper. Because E-Tags will demonstrate that incremental electricity was scheduled and delivered into a CBA, there is no need for the separate use of contract information in Option (1) to verify scheduling. Additionally, because there is no statutory basis or other policy basis to require that incremental electricity have a contractual link with the RPS-eligible generation to which it is matched, there is no need to examine contract information to find evidence of such a link.

The Commission need not require any specific up-front evidence or showing with regard to Bucket 2 or 3 transactions, but should instead treat any RECs as Bucket 3 products unless they are tagged to incremental imports within the same calendar year, in which case they should qualify as Bucket 2. As under the existing 20% RPS Program, the Commission should verify Bucket 2 products through WREGIS.

(b) Incremental

As noted above, "incremental electricity" should be interpreted to mean electricity delivered pursuant to a contract entered into after June 1, 2010. As recommended by Staff, this can be verified using contract information (namely, the execution date for the import contract). As discussed immediately above, there is no need to examine the contracts for a link between the incremental import and the REC. The only link that should be required is that the E-Tag and the REC are generated within and matched together within the same calendar year, as under the existing firming and shaping program.

^{22/} See Appendix A at 7.

(3) Portfolio content category 3

PG&E supports Option (i) identified by Staff. As discussed more fully above, Bucket 3 does not automatically include any unbundled REC. Rather, the statute makes clear that Bucket 3 only includes products that do not qualify to be placed in Buckets 1 or 2. Thus, Option (ii) is in conflict with the statute.

c. Reasonable progress in intervening years of each compliance period

PG&E supports Option (b), which would require the Commission to define POU reasonable progress as a percentage of retail sales in each intervening year. This is the same method PG&E has advocated be used by the CPUC to establish reasonable progress targets for retail sellers.

PG&E agrees with the Staff's recommendation that these intervening year reasonable progress targets, including the 2016 and 2020 statutory reasonable progress targets, are not separately enforceable requirements. The language of Sections 399.15(b)(2)(B)-(C) unambiguously expresses that the single enforceable compliance requirement is that an LSE procure, by the end of the compliance period, the aggregated sum of the respective reasonable progress targets (in percentages) multiplied by retail sales in each respective intervening year. The statute is clear that retail sellers shall not be required to make a demonstration for any individual intervening year.^{23/} In the absence of ambiguity, there is no need for Commission interpretation. The flexibility inherent in SB 2 (1x)'s compliance period structure recognizes that renewable developers continue to face significant near-term development challenges and that new generation is added in a "lumpy" rather than a "linear" fashion over time.

d. Deficits associated with a previous renewables portfolio standard

PG&E has no comment on this issue at this time, other than to note that the statutory provision at Section 399.15(a) does not, on its face, apply to POU's.

e. Excess procurement from previous compliance periods.

(1) When can excess procurement begin to be applied to future compliance periods?

Pursuant to the unambiguous language in Section 399.13(a)(4)(B), excess procurement begins to accrue on January 1, 2011. PG&E agrees with the Staff recommendation on this issue.

^{23/} Section 399.15(b)(2)(C).

- (2) Can excess procurement from portfolio content category 3 be applied toward a future compliance period?

PG&E agrees with the Staff recommendation that because Bucket 3 products can never be excess procurement, they will never need to be banked into a future compliance period.

The plain language of SB 2 (1x) requires this interpretation. The statute provides that “[i]n no event shall electricity products meeting the portfolio content of [Bucket 3] be counted as excess procurement.”^{24/} The only way to give effect to this provision is to count Bucket 3 products first when adding the RECs used for compliance in each compliance period, such that any “excess procurement” in that period could only come from Buckets 1 or 2.

It may help to understand this provision through an analogy. The 33% RPS compliance methodology requires each LSE to fill a pail, the size of which represents that LSE’s total procurement requirement for the compliance period. Like liquids, RECs can be thought of in terms of volume, and so can be poured into the pail until it is full. The excess procurement is what flows over the top of the pail. Using this analogy, the statutory language requires that Bucket 3 RECs can never flow over the top (cannot count as excess procurement), and so they must be poured into the pail first. At most (in the first compliance period), Bucket 3 products will fill one-quarter of the pail. Bucket 1 RECs and Bucket 2 RECs are then added to the pail, and it is only one of these products that will flow over the top of the pail and therefore be subject to the banking rules. Only through this interpretation can the Commission and the CPUC comply with the statute’s requirement that “in no event” shall Bucket 3 products be “counted as excess procurement.”^{25/}

- (3) Length of contracts allowed for excess procurement that can be applied to a future compliance period.

POUs may adopt rules allowing banking, but those rules must ensure that any such banking is done “in the same manner as allowed for retail sellers pursuant to Section 399.13.”^{26/} Accordingly, the only Option consistent with the statute is (i), which would require that such bankable contracts be for a period of at least 10 years. This is the period required for retail sellers under Section 399.13(a)(4)(B).

A few additional details regarding how to calculate this 10-year minimum must be addressed. First, short-term contracts that are grandfathered pursuant to Section 399.16(d) must “count in full,” and are therefore fully bankable notwithstanding Section 399.13. Second, in determining the volume of Incremental Procurement associated with contracts of less than 10 years in duration, the Commission should not include deliveries from contracts with nominal

^{24/} Section 399.13(a)(4)(B).

^{25/} Section 399.13(a)(4)(B).

^{26/} Section 399.30(d)(1).

terms of less than 10 years, but where a contractual relationship extends over a period of greater than 10 years (“Long-Term Contractual Relationships”). Such Long-Term Contractual Relationships may be characterized as those in which: (i) a series of contracts create a continuous contractual relationship between the LSE and the owner (or owner’s successor in interest) of an ERR; and (ii) the combined term of all such terminated and active contracts is equal to or exceeds ten years. In so interpreting the banking provision, the Commission will recognize the value to customers of such Long-Term Contractual Relationships in allowing, among other things, consolidation of existing contracts and modifications to plant operations.

Additionally, the Commission should make clear that in determining whether a contract is “of less than 10 years in duration,”^{27/} it will review only the term of the contract, defined as the length of time between the commencement of deliveries under the contract until the obligation to deliver products ceases under the contract (including any option to extend the term). This analysis should not be impacted by any other aspect of the contract structure or administration, including, for example, whether the contract was in fact terminated at an earlier date than it would have expired, or whether the volumes of products delivered under the contract vary during the contract term.

4. Conditions allowing waiver of enforcement

a. Reasonable conditions that allow for delay of timely compliance

PG&E supports option (a), using the same criteria to waive enforcement in instances of POU noncompliance as used for retail sellers. This is required by SB 2 (1x), which provides a specific and enumerated list of allowable enforcement excuses for retail sellers in Section 399.15(b)(5) and then allows POUs to adopt conditions that allow for delaying timely compliance “consistent with” Section 399.15(b).^{28/} For all LSEs, these statutory criteria should be applied on a case-by-case basis by the Commission, the Air Resources Board, or by the CPUC, as appropriate. No advance implementation or interpretation of the excuse provisions is necessary or useful because case-specific applications of the criteria would be required in the event of actual non-compliance. PG&E does support, however, that the Commission and/or the Air Resources Board should make a final determination regarding whether a POU has met the Section 399.15(b)(5) criteria, rather than the governing board of the POU itself. As with all provisions of the statute, the legislative intent expressed in the structure of SB 2 (1x) is that these excuse provisions will be applied in the same manner to all LSEs, regardless of the regulating agency applying them.

^{27/} Section 399.13(a)(4)(B).

^{28/} Section 399.30(d)(2).

- b. Reasonable conditions that allow procurement expenditures to meet or exceed cost limitations

PG&E supports option (a), using the same criteria for POU cost limitations as those used for retail sellers. However, it is important to note that Section 399.15(c) necessarily recognizes that a cost cap for each LSE will need to be determined, and that the total size (in dollars) of each such limitation will be different. The critical issue is that the same methodology and criteria should be used to set cost caps for each LSE, regardless of the regulating agency. For example, if the Commission and the CPUC agree that a cost cap should be some percentage of total annual revenues from electricity sales, then the same percentage should be used for all LSEs.

5. Dispute resolution process

- a. If POUs dispute Commission findings

PG&E agrees with the Staff recommendation that the same process should be used for POUs as is currently used for retail sellers that dispute Commission findings. There is no policy or statutory basis for differentiated processes.

- b. If another party disputes Commission findings

The same process should be used to dispute Commission findings with regard to POU compliance as is used with regard to retail sellers.

E. Reporting

1. Regulatory Streamlining

PG&E has no specific comment at this time regarding the process that POUs must use to report to the Commission, although, as a general matter, PG&E supports streamlining reporting requirements whenever possible while ensuring that all LSEs are subject to the same level of reporting.

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III. CONCLUSION

PG&E appreciates the opportunity to provide comments on the 33% Concept Paper. In these comments, PG&E urges the Commission to: (1) expressly recognize and confirm its jurisdiction to certify and verify product content category claims; (2) broaden this proceeding to address 33% RPS implementation issues common to all LSEs, and not just the POUs; (3) implement the product content category provisions of SB 2 (1x) as soon as possible; (4) closely coordinate and harmonize its regulations with the CPUC; and (5) adopt the proposals and recommendations on specific issues that PG&E has set forth above.

Best regards,

/s/

M. Grady Mathai-Jackson

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Sean Simon, CPUC, via E-mail at sean.simon@cpuc.ca.gov

RPS Product Matrix | REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Note: The following table was produced by a broad group of stakeholders in order to develop a common conceptual framework for discussing the RPS Product Content Requirements, identifying where stakeholder consensus exists, and allowing individual comments to focus on the identified open issues in the last column. The following stakeholders participated in discussions regarding this table and its refinement based on those discussions: Coalition of California Utility Employees; Division of Ratepayer Advocates; enXco; First Solar; Iberdrola; Independent Energy Producers Association; Large-Scale Solar Association; NextEra; Pacific Gas and Electric Company; San Diego Gas and Electric Company; Southern California Edison; Sunpower; The Utility Reform Network; and the Union of Concerned Scientists.

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
<p><u>What Procurement is Affected?</u></p>	<p>399.16(c) <i>“eligible renewable energy resource electricity products associated with contracts executed after June 1, 2010”</i></p>	<p>“bundled purchase” means the purchase of RPS-eligible energy plus the associated Renewable Energy Credit (REC) “unbundled REC” means the REC associated with the RPS-eligible energy separate from the associated energy</p>	<p>(1) Contract amendments or modifications occurring after June 1, 2010 unless such amendment or modification is grandfathered under the provisions set forth in 399.16(d)(3); (2) New contracts with existing facilities (i.e., recontracting) after June 1, 2010, unless such contract is grandfathered under the provisions set forth in 399.16(d)(3); (3) Any contract executed under an approved IOU Photovoltaic PPA program after June 1, 2010; (4) Engineering, Procurement and</p>	

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RPS Product Matrix

REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
			<p>Construction or Build Own Transfer contracts for renewable utility owned generation (UOG) executed after June 1, 2010;</p> <p>(5) Any Feed in Tariff contract (ie., AB 1969, SB 32, Renewable Auction Mechanism, etc.) executed after June 1, 2010;</p> <p>(6) Any enrollment in the IOU net energy metering (NEM) program for surplus distributed generation (i.e., including but not limited to participants in California Solar Initiative and Self-Generation Incentive Program) after June 1, 2010.</p> <p>(7) Bilaterally-negotiated transactions after June 1, 2010;</p> <p>(8) Any new renewable energy resource contract executed after June 1, 2010, including purchases of unbundled RECs associated with</p>	

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RPS Product Matrix

REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
			generation under any of the above contract structures.	
<u>Bucket #1(a)</u>	<p><i>399.16(b)(1)(A): [addressing point of interconnection of facility]</i></p> <p><i>“Have a first point of interconnection with a California balancing authority”</i></p>	<p>Facility must be an eligible renewable energy resource located within the WECC and Facility must be directly interconnected to a California Balancing Authority (CBA). CBAs include CAISO, LADWP, TID, IID, and Balancing Authority of Northern California (formerly SMUD).</p> <ul style="list-style-type: none"> Any transaction for a product from an eligible renewable generator physically connected to any CBA Any transaction for a product from an eligible renewable generator located outside of a CBA, but which directly interconnects to a CBA through a gen-tie. 	<ul style="list-style-type: none"> Bundled procurement from eligible renewable generator physically connected to any CBA, including utility-owned generation (UOG) NEM surplus sales 	<ul style="list-style-type: none"> Should the CPUC establish a standard in advance for identifying future or additional CBAs now, or should that process wait until there is some change in the current CBA lineup?

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RPS Product Matrix | REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
		<ul style="list-style-type: none"> “gen-tie” means an electrical conductor directly connecting the generation unit to a CBA 		
<u>Bucket #1(b)</u>	<p>399.16(b)(1)(A): [addressing point of interconnection of facility]</p> <p>“[H]ave a first point of interconnection with distribution facilities used to serve end users within a California balancing authority area...”</p>	<p>Facility must be an eligible renewable energy resource located within the WECC and Facility must be directly interconnected to the distribution system located within a CBA’s area.</p> <ul style="list-style-type: none"> Any transaction for a product from an eligible renewable generator physically connected to distribution facilities serving end use customers in a CBA. Any transaction for a product from an eligible renewable generator located outside of a CBA, but which directly interconnects to a CBA’s distribution facilities through a gen-tie. “gen-tie” means an electrical conductor directly connecting the generation unit to a CBA 	<ul style="list-style-type: none"> Bundled procurement from distributed generation facility interconnected at distribution level of any CBA, including UOG NEM surplus sales 	<ul style="list-style-type: none"> Do RECs associated with generation within a CBA area that serves load “behind-the-meter” (ie., CSI/NEM or industrial RPS generation serving on-site load) qualify as Bucket 1 if they are sold (unbundled) to a (1) the retail seller that is also buying the energy, or (2) another RPS-obligated retail seller? In general, should the “bucket” attribute of a REC remain with the REC until it is retired for compliance, no matter how many times it is traded as an unbundled

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RPS Product Matrix

REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
				product in the secondary market? If so, how can the bucket attribute of a REC best be tracked?

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RPS Product Matrix

REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
<p><u>Bucket #1(c)</u></p>	<p><i>[399.16(b)(1)(A): re specific types of commercial transactions]</i></p> <p><i>“... or are scheduled from the eligible renewable energy resource into a California balancing authority without substituting electricity from another source. The use of another source to provide real-time ancillary services required to maintain an hourly or subhourly import schedule into a California balancing authority shall be permitted, but only the fraction of the schedule actually</i></p>	<ul style="list-style-type: none"> • Energy must be scheduled to a CBA from an eligible renewable energy resource (“ERR”) located within the WECC and documented using E-tag information for generator source and delivery sink. • Schedule into the CBA may be day-ahead, hourly, or sub-hourly. • No specific transmission rights are required. • Only the lesser of ERR metered-data and the final adjusted E-tags is eligible as “Bucket 1(c)”. • Import schedules may be firmed within the hour through the use of ancillary services markets, including intra-hour balancing services. 	<ul style="list-style-type: none"> • Generator located in the Pacific Northwest schedules 100 MWh into CAISO over time period X. In that time period, generator meter data shows generation of 90 MWh, and final adjusted E-Tags show delivery of 100 MWh. Retail seller will receive 90 MWh of Bucket 1(c) credit from this resource over this time period. • Over time period Y, Generator scheduled 100 MWh, but 110 MWh is actually generated; 100 MWh would be reflected on the E-tag and is counted for “Bucket # 1(c).” 	<ul style="list-style-type: none"> • Over what period of time may the facility’s meter data be netted against the final adjusted E-tags from the contract? Hourly? Monthly? • What additional technology, data, or systems, if any, are needed to track, compute, and produce for verification these comparisons of meter data with final adjusted E-tags? How does the answer to this question impact the feasibility or reasonableness of any particular netting period, as discussed in the bullet above?

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RPS Product Matrix

REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
	<p><i>generated by the eligible renewable energy resource shall count toward this portfolio content category.”</i></p>			

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RPS Product Matrix

REFERENCE PROPOSAL OUTLINING AREAS OF BROAD CONSENSUS AND OPEN ISSUES

Issue or RPS Portfolio Content Category Requiring Interpretation	New Statutory Language (from SB 2 (1X))	Consensus RPS Product Description	Consensus Illustrative Contract / Interconnection Structures	Open Issues (No Consensus)
<u>Bucket #1(d)</u>	<p>399.16(b)(1)(B):</p> <p>[re dynamically scheduled transactions]</p> <p><i>“Have an agreement to dynamically transfer electricity to a California balancing authority.”</i></p>	<ul style="list-style-type: none"> Any transaction in which the energy from an ERR located within the WECC is dynamically transferred into a CBA; Able to show agreement between generator and CBA (and, if necessary for a pseudo-tie, with the host BA) that allows for the CBA to dynamically transfer the electrical output from the eligible renewable resource to serve CBA load. 	<ul style="list-style-type: none"> Qualifying interconnection agreements include pseudo-tie agreements and dynamic scheduling agreements (or functional equivalent). Bundled deliveries pursuant to a dynamic transfer agreement (or functional equivalent). 	
<p><u>Bucket #2</u></p> <p><u>“FIRMED AND SHAPED TRANSACTION S”</u></p>	<p>Section 399.16(b)(2):</p> <p><i>“Firmed and shaped eligible renewable energy resource electricity products providing incremental electricity and scheduled into a California balancing authority.”</i></p>	<ul style="list-style-type: none"> Electricity products must derive from eligible renewable energy resources located with the WECC. REC must be “E-tagged” to energy scheduled for delivery to a CBA; Energy to which the REC is “E-tagged” must be “incremental” Energy to which the REC is “E-tagged” must have been delivered to the CBA 	<ul style="list-style-type: none"> Retail seller buys bundled product of energy and RECs from an ERR not located in a CBA. Energy is immediately sold off locally. Retail seller tags the RECs from the RPS PPA to the E-tags for the imported incremental energy within the same calendar year that the RECs were generated. Procurement of bundled product from ERR outside of a CBA. ERR 	<ul style="list-style-type: none"> What is the definition of “incremental electricity?” Are there any additional attributes or contract structures that must be included to qualify procurement as a “firmed and shaped” product (i.e., concurrent procurement, fixed price agreement, etc)?

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		<p>within the same calendar year of the creation of the REC within WREGIS.</p>	<p>intends generally to qualify as Bucket #1(c) by scheduling imports directly into a CBA. However, ERR cannot transmit its full contract quantity into a CBA within the time period specified for Bucket #1(c). In the same time period, ERR delivers a firm schedule for import into the CBA using some substitute energy. The “stranded” RECs are tagged to the substitute energy within the same calendar year and qualify as Bucket #2.</p>	<ul style="list-style-type: none"> • Should there be a grace period beyond the calendar year during which the tagging process may be “trued up?” • Must the term of the firming and shaping agreement described in the first illustrative contract structure match the term of the RPS PPA producing the RECs? • What other contract structures or variations on the consensus contract structures qualify as bucket #2?

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<p><u>"Bucket #3"</u></p> <p><u>All Other RPS Products</u></p>	<p>[Section 399.16(b)(3):]</p> <p><i>"Eligible renewable energy resource electricity products, or any fraction of the electricity generated, including unbundled renewable energy credits, that do not qualify under the criteria of paragraph (1) or (2)."</i></p>	<ul style="list-style-type: none"> • Any certificate registered within the Western Renewable Generator Information System (WREGIS) that does not qualify as Bucket 1 or Bucket 2. • No energy and/or capacity need be associated with this type of transaction. 	<ul style="list-style-type: none"> • Retail seller procures unbundled RECs from an ERR located within WECC, but not in a CBA. Retail seller does not "tag" these RECs to any energy. • Energy to which a REC generated by a non-CBA facility is tagged is imported outside the same calendar year or is not "incremental." 	

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	January	February	March	April	May	June	July	August	September	October	November	December
Monthly Meter	100	150	125	130	175	135	140	100	120	180	160	130
Monthly Final Tags from Specific Renewable Resource	120	100	150	115	100	105	125	105	110	190	140	165
Monthly Final Tags from other Incremental Imports	5	0	10	0	0	5	0	0	0	15	10	5
Monthly Bucket 1 (Directly Delivered)	100	100	125	115	100	105	125	100	110	180	140	130
Monthly Bucket 2 (Shaped and Firmed)	0	0	0	0	0	5	0	0	0	0	10	0
Monthly Excess Brown Energy	25	0	35	0	0	0	0	5	0	25	0	40
Monthly Excess Metered Energy	0	50	0	15	75	25	15	0	10	0	10	0
Running Total Bucket 1 (Directly Delivered)	100	200	325	440	540	645	770	870	980	1160	1300	1430
Running Total Bucket 2 (Shaped and Firmed)	0	25	50	60	60	65	65	70	70	95	105	145
Running Total Excess Brown	25	0	10	0	0	0	0	0	0	0	0	0
Running Total Excess Metered Energy	0	25	0	5	80	105	120	115	125	100	110	70
Bucket 3 (RECs)												70

Note: All figures are stated in MWh

Definitions:

Monthly Meter: The amount of energy produced by a specific renewable resource as measured at the project busbar at the end of a calendar month of delivery.

Monthly Final Tags from Specific Renewable Resource: The amount of eTags sourced from the specific renewable resource as measured at the end of a calendar month of delivery.

Monthly Final Tags from Other Incremental Resources: The amount of eTags sourced from specified or unspecified resources delivered under contracts entered into after 6/1/2010 and measured at the end of a calendar month of delivery.

Monthly Bucket 1: The lesser of meter vs. specific renewable resource eTags as measured at the end of a calendar month of delivery.

Monthly Bucket 2: The amount of incremental import eTags assigned to monthly meter as measured at the end a calendar month of delivery.

Monthly Excess Brown Energy: The amount of eTags, including specific renewable resource eTags and incremental import eTags, over and above meter as measured at the end of a calendar month of delivery.

Monthly Excess Metered Energy: The amount of meter over and above specific renewable resource and incremental import eTags as measured at the end of a calendar month of delivery.

Running Total Bucket 1 (Directly Delivered): The total of Monthly Bucket 1 carried forward monthly within a calendar year of delivery.

Running Total Bucket 2 (Shaped and Firmed): The total energy eTagged to California and carried forward monthly within a calendar year that is either: 1) Not sourced from the renewable resource, but assigned to the renewable resource meter, or 2) Sourced from the specific renewable resource, but delivered outside the calendar month when metered generation actually occurred, and subsequently assigned to the renewable resource meter within the calendar year of generation.

Running Total Excess Brown: The total energy eTagged to California over and above actual metered output for a particular resource carried forward monthly during a calendar year of generation. Amounts remaining at the end of a calendar year would constitute standard brown power imports.

Running Total Excess Metered Energy: The total energy metered during a calendar year of production, but not delivered to California via eTags. Amounts remaining after the calendar year has been completed would constitute Bucket 3 (RECs).

Bucket 3 (RECs): The total energy metered during a calendar year of production, but not delivered to California via eTags as measured after the calendar year has been completed.