

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);</p> <p>(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);</p> <p>(3) Any contract executed under an approved IOU Photovoltaic PPA program after June 1, 2010;</p> <p>(4) Engineering, Procurement and Construction or Build Own Transfer</p>	

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			<p>contracts for renewable utility owned generation (UOG) executed after June 1, 2010;</p> <p>(5) Any Feed in Tariff contract (i.e., 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 generation under any of the above contract structures.</p>	

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<u>Bucket #1(a)</u>	<p>399.16(b)(1)(A): <i>[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. • “gen-tie” means an electrical conductor directly connecting the generation unit to a CBA 	<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?
<u>Bucket #1(b)</u>	<p>399.16(b)(1)(A): <i>[addressing point of interconnection of facility]</i></p>	<p>Facility must be an eligible renewable energy resource located within the WECC and Facility must be directly interconnected to the distribution system</p>	<ul style="list-style-type: none"> • Bundled procurement from distributed generation facility interconnected at distribution level of any CBA, including UOG 	<ul style="list-style-type: none"> • Do RECs associated with generation within a CBA area that serves load “behind-the-meter” (ie.,

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	<p><i>“[H]ave a first point of interconnection with distribution facilities used to serve end users within a California balancing authority area...”</i></p>	<p>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"> • NEM surplus sales 	<p>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?</p> <ul style="list-style-type: none"> • 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?

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<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 generated by the</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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	<p><i>eligible renewable energy resource shall count toward this portfolio content category.”</i></p>			

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<u>Bucket #1(d)</u>	399.16(b)(1)(B): [re dynamically scheduled transactions] <i>“Have an agreement to dynamically transfer electricity to a California balancing authority.”</i>	<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). 	
<u>Bucket #2</u> <u>“FIRMED AND SHAPED TRANSACTION S”</u>	Section 399.16(b)(2): <i>“Firmed and shaped eligible renewable energy resource electricity products providing incremental electricity and scheduled into a California balancing authority.”</i>	<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 within the same calendar year of the 	<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 intends generally to qualify as 	<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)? Should there be a grace

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		creation of the REC within WREGIS.	<p>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>	<p>period beyond the calendar year during which the tagging process may be “trued up?”</p> <ul style="list-style-type: none"> • 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?
<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,</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 	<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 	

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	<i>including unbundled renewable energy credits, that do not qualify under the criteria of paragraph (1) or (2)."</i>	transaction.	imported outside the same calendar year or is not "incremental."	

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