



March 13, 2007

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DATE	MAR 13 2007
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Renewables Committee Chair John Geesman
Associate Member Jacqueline Pfannenstiel
California Energy Commission
1516 Ninth Street
Sacramento CA

Re: Committee Draft Revisions to the
Renewables Portfolio Standard Eligibility Guidebook (2nd Ed.)

Dear Commissioners:

Pacific Gas and Electric Company appreciates your efforts to update the CEC's Renewables Portfolio Standard (RPS) Guidebook to reflect the evolution of the RPS marketplace, regulatory trends, and legislative changes.

The renewables team at PG&E has been carefully reviewing each version of your draft RPS Eligibility Guidebook, 2nd edition, to help create clear, reasonably flexible rules that will promote renewables procurement. We have a few comments on the Committee Draft version in the areas of biogas, small hydro, and out of state delivery that we believe will eliminate ambiguity and enhance the procurement process. These suggestions are not extensive and can be incorporated into the Guidelines for issuance at the March 14 Business Meeting as originally scheduled.

1. Biogas.

Whether the point of injection is within the WECC or not should not matter, since the WECC is an electric grid that is not coterminous with the natural gas pipelines that supply electric generation in California.

Pipeline biogas should be acknowledged as a renewable substitute for natural gas to the extent it meets the Guidebook's quality standards and is used by a CEC-certified RPS eligible generating facility. In that case, pipeline biogas may be sourced from wherever pipeline natural gas is sourced. PG&E recommends the following language change to page 30 of the Committee Draft, and the additional changes shown in Appendix 1.

2. The gas must be injected at a point within the WECC region, into a natural gas transportation transmission pipeline system that delivers gas into California.

2. Small Hydro.

The eligibility of small hydroelectric facilities was substantially amended during the last Legislative session. Abolition of the difference between baseline and incremental generation, the exception of conduit facilities from certain restrictions, qualifications for new facilities and other changes mean that imposing changes on the outdated format has resulted in guidelines that are hard to understand. (Committee Draft pp. 18-24.) PG&E submits the small hydro guidelines in a more streamlined, yet comprehensive format in the attachment and urges the Commission to revise its small hydro guidelines in this form.

As revised last legislative session, 399.12(b)(1) states that neither a new hydroelectric facility nor a new conduit facility would be an eligible renewable energy resource if it would require a new or increased appropriation or diversion of water from a watercourse. To give meaning to the phrase, “from a watercourse,” the Guidebook should use the Water Code definitions of “appropriation” and “diversion” as drafted, but ADD the Water Code definition of “change in streamflow regime” as part of the Guidebook definitions. Thus, a small hydro or conduit facility could be RPS-eligible if it “appropriated” or “diverted” water so long as it did not result in any change in streamflow regime, as defined. See Appendix 2 – Small Hydro Guidelines.

3. Banked and Shaped Deliveries.

The Committee Draft has already improved the potential for additional out-of-state eligible renewable resources by allowing delivery of “banked” energy from any “balancing authority” in the WECC, so long as the delivery is properly scheduled.

To promote more regulatory certainty regarding the eligibility of these import transactions, increasing the overall supply, and lowering the delivered cost of eligible renewable resources for the benefit of California consumers, PG&E proposes that the Commission make a number of clarifying changes to the delivery requirements section. These suggested changes are specified in the attached redline to the Committee draft. By recognizing that energy can be delivered from any “balancing authority” or trading hub in the WECC, including by wheeling across multiple control areas, for ultimate delivery into California, the CEC will allow retail sellers to optimize the cost-effective procurement of renewable energy from the WECC market in a manner comparable to the way they procure non-renewable energy. PG&E’s suggested changes appear in Appendix 3.

4. Requirements for Resources Located Outside the United States

PG&E has recently received CPUC approval to seek renewables procurement opportunities in the Pacific Northwest, including parts of Canada. Potential Northwest developers have expressed concern that their eligibility requirements could be subject to arbitrary interpretation and result in untenable project delay. The Guidebook requires the project proponent to list all of the California environmental quality requirements that would apply to the facility if it were located in California and explain how the

development and operation would be consistent with the California requirements. PG&E is aware that the requirements are rooted in the statutory requirements for out-of-country facilities, but is also sensitive to developers' needs.¹ Although it may be too early in the regulatory process to suggest modifications to the Guideline, PG&E urges the CEC to implement these guidelines in a way that does not discourage out of state resources from selling to the California market.

These important changes to the California RPS eligibility guidelines will expand the market for renewable energy by allowing more renewable generators to secure power purchase agreements with California retail sellers and enabling retail sellers to procure renewable energy at the lowest cost and best portfolio fit for their customers.

PG&E sincerely appreciates the Committee's consideration of our comments on the draft.

Sincerely,

/s/

Les Guliasi
Director, State Agency Relations

cc: James D. Boyd
Jeffrey Byron
Arthur H. Rosenfeld
B. B. Blevins
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Jason Orta
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John Wilson
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Attachments

¹ The statutory requirement that applicable to facilities located outside of the United States be developed and operated in a manner that is as protective of the environment as a similar facility located in the state may discourage potential developers from contracting with California retail sellers. (See, Public Resources Code section 25741(b)2(B)(v).)

**Appendix 1. PG&E's RECOMMENDED CHANGES TO DISCUSSION OF
BIOGAS RESOURCES**

(Committee Draft at pp.29-30.)

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• **Biogas Injected into a Natural Gas Pipeline**

RPS-eligible biogas (gas derived from RPS-eligible biomass or digester gas) injected into a natural gas ~~transportation~~ pipeline system and delivered into California for use in an RPS-certified hybrid facility may result in the generation of RPS-eligible electricity.

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The biogas must meet strict heat content and quality requirements within a narrow band of tolerance to qualify as pipeline-grade gas. Quantifying RPS-eligible energy production requires accurate metering of the volume of biogas injected into the ~~transportation~~ pipeline system and the measured heat content of the injected gas.

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Although blending the biogas into the ~~transportation~~ pipeline system mixes the biogas with other pipeline gas, natural gas regulations require gas entering the system to be “nominated” for use at a specific power plant or to a pipeline system owned by a publicly owned utility or other load-serving entity (LSE). Consequently, the amount and energy content of the biogas or other RPS-eligible gas produced can be measured and either nominated for use at a specific power plant or nominated to a pipeline system owned by an LSE. If the biogas is nominated to a pipeline system, the owner of the system must designate the facility in which the biogas will be used.

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The operator of a facility to which biogas is nominated (or designated) must certify its facility as RPS-eligible, recognizing that the facility will use a blend of RPS-eligible and ineligible fuel. The amount of RPS-eligible electricity produced shall be calculated by multiplying the generation of the facility (MWh) by the ratio of the biogas used and the total gas (biogas and natural gas) used by the facility. The electricity generated and gas use must be measured over an equal period (such as MWh produced per month and gas used per month). Any production or acquisition of gas that is directly supplied to the gas ~~transportation~~ pipeline system and used to produce electricity may generate RPS-eligible electricity as follows:

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1. The gas must be produced from an RPS-eligible resource, such as biomass or digester gas.

2. The gas must be injected into a natural gas pipeline system, that is either within the WECC region or interconnected to a natural gas pipeline system in the WECC region, that delivers gas into California.

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3. The energy content produced and supplied to the transportation pipeline system must be measured and reported annually, disaggregated by month. Reporting shall be in units of energy (e.g. MMBtu) based on metering of gas volume and adjustment for measured heat content per volume. In addition, the total amount of gas used at the RPS-eligible facility must be reported in the same units measured over the same period and the electricity production must be reported in MWh.

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4. The gas must be used at a facility that has been certified as RPS-eligible. As part of the application for certification, the applicant must attest that the RPS-eligible gas will be nominated to that facility or nominated to the LSE-owned pipeline serving the designated facility.

5. In its annual verification report, the Energy Commission will calculate the RPS eligible energy produced using the same methodology discussed above.

When applying for RPS and SEP pre-certification, certification, or renewal, the application must include the following: (1) an attestation from the hybrid facility operator of its intent to procure biogas fuel that meets RPS eligibility criteria, and (2) an attestation from the fuel supplier that the fuel meets eligibility requirements.

Two other options for eligibility of facilities that operate on co-fired fuels or a mix of fuels that includes fossil fuel are discussed in Section 7.

**APPENDIX 2, PG&E’S RECOMMENDED GUIDELINES FOR
SMALL HYDRO ELIGIBILITY**

3. Definitions Specific to Small Hydroelectric and Conduit Hydroelectric Resources.

For purposes of new or repowered small hydroelectric and conduit hydroelectric facilities and efficiency improvements to these facilities, the terms “appropriation” and “diversion” shall be defined as follows:

“Appropriation” shall mean the exercise of a right to use a specified quantity of water from any surface streams or other surface bodies of water or from any subterranean streams flowing through known and definite channels, consistent with Water Code Section 1201, in a manner that changes the streamflow regime, as defined by Water Code Section 1490 and Title 23, Section 799, of the California Administrative Code.¹

“Diversion” shall be defined in a manner consistent with Water Code Sections 5100(b) and 1490, and Title 23, Section 799, of the California Administrative Code, to mean changing the streamflow regime by taking water by gravity or pumping from a surface stream or subterranean stream flowing through a known and definite channel, or other body of surface water, into a canal, pipeline, or other conduit, and includes impoundment of water in a reservoir.

1. RPS Eligibility

¹ The relevant portion of Water Code Section 1490 states that applications or petitions for retrofit hydroelectric plants at existing dams, canals, or conduits where the streamflow regime will not be changed and where there will be no significant adverse environmental impacts shall receive expedited processing by the board. Section 799 of the 23 Cal. Adm. Code section 799 states, “The criteria that shall be considered in determining whether there would be a change in the streamflow regime include, but are not limited to, the following: (1) Will the rate and volume of flow be changed? (2) Will the water temperature be changed? (3) Will there be changes in the concentration of dissolved oxygen or turbidity? (4) Will there be changes in the timing of water releases from any existing water diversion or storage facility? (5) Will there be a change in the point of discharge or will any additional section of watercourse be bypassed?”

a. In-State

(1) Small hydroelectric (not conduit)

A small hydroelectric facility of 30 megawatts or less is eligible for the RPS if either:

- The facility was in existence as of January 1, 2007 and a retail seller either owned or procured the electricity from the facility as of December 31, 2005, or
- The facility commenced operations or is repowered on or after January 1, 2007 and does not require a new or increased appropriation or diversion of water from a watercourse.

A small hydroelectric facility shall not lose its RPS eligibility if efficiency improvements undertaken after January 1, 2003, cause it to exceed 30 MW and do not result in a new or increased appropriation or diversion of water from a watercourse.

(2) Conduit hydroelectric

A conduit hydroelectric facility of 30 megawatts or less is eligible for the RPS if the facility is not located on federal lands and uses for its generation only the hydroelectric potential of a manmade conduit, which is operated for the distribution of water for agricultural, municipal, or industrial consumption and not primarily for the generation of electricity as specified in Section 823a of Title 16 of the United States Code and either:

- Commenced operations before January 1, 2007, or
- Commenced operations or is repowered on or after January 1, 2007, and does not require a new or increased appropriation or diversion of water from a watercourse

A conduit hydroelectric facility shall not lose its RPS eligibility if efficiency improvements undertaken after January 1, 2003, cause it to exceed 30 MW and do not result in a new or increased appropriation or diversion of water from a water course.

b. Out-of-state Small Hydroelectric and Conduit Hydroelectric

In addition to the requirement of subsection (a), above, an out-of-state facility must commence initial commercial operation after January 1, 2005, be connected to the WECC transmission network and deliver electricity to an in-state location, avoid causing or contributing to any violation of a California environmental quality standard or requirement, as determined by these Guidelines, and participate in the accounting system to verify compliance with the RPS by retail sellers, once established by the CEC.

c. Out-of-country Small Hydroelectric and Conduit Hydroelectric

In addition to the requirements of subsections (a) and (b), above, an out-of-country facility must be developed and operated in manner determined by these Guidelines to be as protective of the environment as a similar facility located in the state.

2. SEP Eligibility

a. In-state Small Hydroelectric and Conduit Hydroelectric

Both small hydroelectric and conduit small hydroelectric facilities are eligible for SEPs if the facility does not require a new or increased appropriation or diversion of water under Water Code Section 1200 et seq. or any other provision of law authorizing an appropriation of water.

b. Out-of-state Small Hydroelectric and Conduit Hydroelectric

In addition to the requirement of subsection (a), above, an out-of-state facility must commence initial commercial operation after January 1, 2005, be connected to the WECC transmission network and deliver electricity to an in-state location, avoid causing or contributing to any violation of a California environmental quality standard or requirement, as determined by these Guidelines, and participates in the accounting system to verify compliance with the RPS by retail sellers, once established by the CEC.

c. Out-of-country Small Hydroelectric and Conduit Hydroelectric

In addition to the requirements of subsections (a) and (b), above, an out-of-country facility must be developed and operated in manner determined by these Guidelines to be as protective of the environment as a similar facility located in the state.

Appendix 3: PG&E'S RECOMMENDED CHANGES TO DELIVERY GUIDELINES

Note: The revision marks contained in the Committee Draft appear in black.
PG&E's suggested changes appear as colored text.

D. Eligibility of Out-of-State Facilities

... [Explanation: this provision could be construed as conflicting with the additional detail provided in the next Section E: Delivery Requirements.]

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E. Delivery Requirements

For purposes of RPS compliance, electricity is deemed delivered if it is either generated at a location within the state or is scheduled for consumption by California end-use retail customers as specified in Public Resources Code Section 25741, Subdivision (a).

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Consequently, electricity generated by facilities located in-state or having their first point of interconnection to the WECC transmission system in-state satisfies California RPS delivery requirements.

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To count generation from out-of-state facilities for purposes of RPS compliance, the facility must ~~execute~~ a power purchase agreement with the retail seller or procurement entity and electricity it must be delivered to an in-state market hub (also referred to as "zone") or in-state ~~substation~~ point of delivery (also referred to as "node") located within California. ~~the CA ISO control area of the WECC transmission system (or located anywhere in California if applicable CPUC rules allow delivery outside CA ISO).~~ The retail seller or procurement entity and Seller may negotiate which party is responsible for securing transmission, as necessary, at any point along the delivery path as long as the energy is delivered into California. ~~the CA ISO (or delivered into California if applicable CPUC rules allow delivery outside CA ISO).~~ Pursuant to Public Resources Code Section 25741, Subdivision (a), energy may be delivered into California at a time different than when the facility generated energy. The retail seller or procurement entity may document delivery of energy from any control area operator (also referred to as "balancing authority") or from any market hub in the WECC transmission system, including by wheeling energy across multiple control areas. The Energy Commission will compare the amount of RPS-eligible energy generated by the RPS-eligible facility per calendar year with the amount of energy delivered into California from any balancing authority in the WECC transmission system for the same calendar year and the lesser of the two amounts may be counted as RPS-eligible procurement (for more discussion see "verification of delivery"). The generation from the facility must be procured by a power purchase agreement with the retail seller or procurement entity. The delivery of energy must be made consistent with North American Electric Reliability Corporation (NERC) rules and documented with a NERC E-Tag as described below.

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The following deliverability requirements were developed in consultation with the CA

California ISO. These requirements must be satisfied for an out-of-state facility to qualify for the RPS or SEPs (with the exception noted above for retail sellers subject pursuant to Public Utilities Code Section 399.17). The delivery requirements do not apply to facilities located outside of California whose first point of interconnection to the WECC transmission system is located in California.

1. The facility must either (a) engage in an interchange transaction with the CA ISO to deliver the facility's generation to the market hub or substation in the CA ISO control area or (b) engage in an interchange transaction with another control area operator to deliver the facility's generation to an in-state location that satisfies applicable CPUC rules for delivery location. The retail seller, procurement entity, or facility representative must either (a) arrange for an interchange transaction with the California ISO to deliver the facility's generation to a point of delivery in California, or (b) arrange for an interchange transaction with another balancing authority to deliver energy to a point of delivery in California. In accordance with the policies of the NERC, the interchange transaction must be scheduled with what is commonly referred to as a "NERC E-Tag". This requires that information be provided identifying the "Source" or the "Point of Receipt," the physical transmission path for delivery identifying the balancing authority in the WECC transmission system from which energy is being delivered to the Load Serving Entity, the contract or market path, and the final Point of Delivery or load center, known as the "sink," which is a point of delivery in California, and the Load Serving Entity responsible for the consumption of electricity delivered.

2. The owner of the eligible facility shall register the facility as a unique Source with NERC. This Source shall be used on NERC transaction tags for all eligible energy deliveries. The Source identified on the NERC E-Tag may be a specific RPS-eligible facility registered as a unique source, or any balancing authority or market hub located in the WECC.

3. The RPS certification number of the facility that is engaged in a power purchase agreement with a retail seller or procurement entity must be shown on the comment field of the NERC E-Tag.

3.4. The facility must provide the Energy Commission with its NERC identification (Source point name)¹¹ if it registers as a unique source, or the Source point name of the balancing authority in which it is located when it applies for RPS certification.

4.5. The seller facility must request submit for and receive acceptance of a NERC E-Tag between a balancing authority in California and any balancing authority located in the WECC. The CA ISO and the operator of the control area in which the facility is located.

5.6. The applicable parties (the Generation Providing Entity and Load Service

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¹¹ The NERC identification is the Source point name, an alpha-numeric code the generator uses to identify itself when it registers with the Transmission Services Information Network (TSIN). Registration with TSIN is mandatory for participation in the NERC tagging system.

Entities) must agree to make available upon request documentation of the NERC ~~E-Tag~~ to the Energy Commission. On May 1 of each year (or the next business day), the retail seller or procurement entity must submit an annual report documenting compliance with this NERC ~~E-Tag~~ requirement for the previous calendar year to the Energy Commission.

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~~6.7. The facility, or the retail seller on the facility's behalf, must submit verification of its generation to the Energy Commission annually until the long-term tracking system is in place. Please refer to the section on the "Ggeneration Ttracking Ssystem."~~ The Energy Commission will use these data to verify the actual generation of power that was scheduled for delivery via NERC ~~E-Tag~~s.

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8. If a facility has obtained a SEP award, the Energy Commission will verify that SEPs were granted only for generation that satisfies the delivery requirements. For more information, please refer to the *New Renewable Facilities Program Guidebook*.