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CALIFORNIA ENERGY COMMISSION 1516 Ninth Street Sacramento, California 95814 Main website: www.energy.ca.gov



and Implementation of Renewables Investment Plan Legislation	 NOTICE OF STAFF WORKSHOP RE: Guideline Revisions for RPS Implementation and Renewable Energy Program
Portiolio Standard Legislation) Docket No. 02-REN-1038
Implementation of Renewables)) Docket No. 03-RPS-1078
In the matter of:)

Notice of Staff Workshop on Proposed Changes to the Renewables Portfolio Standard Eligibility Guidebook and the Overall Program Guidebook for the Renewable Energy Program

The California Energy Commission staff will conduct a workshop to solicit public comments on proposed changes to the *Renewables Portfolio Standard Eligibility Guidebook (RPS Guidebook)* and the *Overall Program Guidebook for the Renewable Energy Program (Overall Guidebook)*.

August 30, 2010

Beginning at 10 a.m. CALIFORNIA ENERGY COMMISSION 1516 Ninth Street First Floor, Hearing Room A Sacramento, California (Wheelchair Accessible)

Remote Attendance and Availability of Documents

Internet Webcast - Presentations and audio from the meeting will be broadcast via The Energy Commission's WebEx web meeting service. For details on how to participate via WebEx, please see the "Remote Attendance" section toward the end of this notice. Documents and presentations for this meeting will be available online at:

http://www.energy.ca.gov/portfolio/documents/index.html

Purpose

The purpose of the staff workshop is to solicit comments from interested parties on the proposed changes to the *RPS Guidebook* and the *Overall Guidebook*.

The *RPS Guidebook* describes the eligibility requirements and process for certifying renewable resources as eligible for California's RPS and describes how the Energy Commission verifies compliance with the RPS. The *Overall Guidebook* describes specific aspects of how the Renewable Energy Program is administered. Proposed changes to the *Overall Guidebook* revise and update various definitions applicable to the RPS. Summaries of proposed changes to these guidebooks are provided in Attachment A to this notice.

In addition to comments on the proposed changes to the guidebooks, staff is seeking public input on additional issues under consideration for inclusion in the *RPS Guidebook*. To frame and guide public input on these issues, staff requests parties to respond to specific questions, which are provided in Attachment B to this notice, regarding the following topics:

- Allowing Western Renewable Energy Generation Information System (WREGIS) Certificates for retroactive renewable energy credits (RECs) to be counted toward the RPS;
- Clarifying the determination of the de minimus amount of nonrenewable fuel input that can be counted as "renewable" generation for purposes of the RPS from multi-fuel facilities;
- Clarifying the RPS eligibility requirements for biogas; and
- Clarifying whether pre-processed municipal solid waste is considered RPSeligible biomass feedstock.

The joint staff of the California Public Utilities Commission (CPUC), the California Air Resources Board (CARB) and the Energy Commission are planning to conduct a separate workshop in the fall of 2010 to solicit public input on modifying the RPS delivery requirements in the *RPS Guidebook*. Specifically, the staff will seek input in that workshop on a variety of options for modifying the Energy Commission's requirements for energy delivery from RPS-eligible out-of-state facilities, and how the requirements would work under tradable renewable energy credit regimes, if approved for the RPS by the CPUC or the Legislature. In addition, participants will discuss how to coordinate implementation of the RPS and CARB's Renewable Electricity Standard (RES) given different delivery options.¹ Because the comments received as a result of that workshop will help inform the Energy Commission staff's proposed changes to the delivery requirements in the *RPS Eligibility Guidebook*, will not address delivery requirements.

¹ The CARB is developing regulations for the RES pursuant to the Governor's Executive Order S-21-09.

Energy Commission commissioners may attend the staff workshop. The draft guidebooks, with staff's proposed changes shown in underline/strikeout format, will be available by 5 pm on Monday, August 23, 2010 on the Energy Commission's Web site at:

http://www.energy.ca.gov/portfolio/documents/index.html

Background

Renewable Energy Program guidebooks are revised periodically to reflect statutory, market, and regulatory developments and to respond to lessons learned through implementing the program. The staff intends to fully consider all public comments on the draft *RPS Guidebook* and the *Overall Program Guidebook*, make any needed revisions, and then propose that the Energy Commission adopt these guidebooks with any revisions at a regularly scheduled business meeting. Public Resources Code Section 25747 authorizes the Energy Commission to approve substantive changes to the guidebooks upon providing 10 days public notice. Changes take effect once approved at a publicly noticed meeting.

Written Comments

Written comments on the workshop topics must be submitted by 5:00 p.m. on September 10, 2010. Please include the docket numbers 02-REN-1038 and 03-RPS-1078 and indicate *RPS Proceeding* in the subject line or first paragraph of your comments. Please hand deliver or mail an original copy to:

> California Energy Commission Dockets Office, MS-4 Re: Docket No. 03-RPS-1078 and Docket No. 02-REN-1038 RPS Proceeding 1516 Ninth Street Sacramento, CA 95814-5512

The Energy Commission encourages comments by e-mail. Please include your name or organization's name in the name of the file. Those submitting comments by electronic mail should provide them in either Microsoft Word format or as a Portable Document (PDF) to [docket@energy.state.ca.us]. **One paper copy** must also be sent to the Energy Commission's Docket Unit.

Participants may also provide an original and 10 copies of their comments at the beginning of the workshop. All written materials relating to this workshop will be filed with the Dockets Unit and become part of the public record in this proceeding.

Public Participation

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission activities. If you want information on how to participate in this forum, please contact the Public Adviser's Office at (916) 654-4489 or toll free at (800) 822-6228, by FAX at (916) 654-4493, or by e-mail at [PublicAdviser@energy.state.ca.us] If you have a disability and require assistance to participate, please contact Lou Quiroz at (916) 654-5146 at least five days in advance.

Please direct all news media inquiries to the Media and Public Communications Office at (916) 654-4989, or by e-mail at [<u>mediaoffice@energy.state.ca.us</u>].

If you have questions on the technical subject matter of this meeting, please contact Kate Zocchetti, RPS Unit Supervisor, at (916) 653-4710 or [kzocchet@energy.state.ca.us].

Remote Attendance

You can participate in this meeting through WebEx, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you listen to the audio via your telephone. Please be aware that the meeting's WebEx audio and on-screen activity may be recorded.

Computer Log-on with Telephone Audio:

- 1. Please go to <u>https://energy.webex.com</u> and enter the unique meeting number: 926 387 128
- 2. When prompted, enter your name and other information as directed and the meeting password: rps@2010
- After you log-in, a prompt will ask for your phone number. If you wish to have WebEx call you back, enter your phone number. This will add your name on the WebEx log so that we know who is connected and have a record of you participating by WebEx.

If you do not wish to do that, click cancel, and go to step 4. Or, if your company uses an older switchboard-type phone system where your line is an extension, click cancel and go to step 4.

4. If you didn't want WebEx to call you back, then call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the meeting number above and your unique Attendee ID number, which is listed in the top left area of your screen after you login via computer. International callers can dial in using the "Show all global call-in numbers" link (also in the top left area).

Telephone Only (No Computer Access):

1. Call 1-866-469-3239 (toll-free in the U.S. and Canada) and when prompted enter the unique meeting number above. International callers can select their number from https://energy.webex.com/energy/globalcallin.php

If you have difficulty joining the meeting, please call the WebEx Technical Support number at 1-866-229-3239.

The service list for revisions to the *Renewables Portfolio Standard Eligibility Guidebook* and *Overall Program Guidebook* is handled electronically. Parties interested in receiving these notices may sign up for the *"renewable"* list server through the website <u>www.energy.ca.gov/listservers/index.html</u>. Scroll down the Renewable Energy Lists and select the "renewable" list to receive electronic information via your e-mail address.

Date: August 16, 2010

Electronic Mail List: renewable Mail Lists: 5507 RPS

Attachment A: Summary of Revisions to the RPS Eligibility Guidebook and Overall Program Guidebook

The following summarizes the proposed changes to the *Renewables Portfolio Standard Eligibility Guidebook* and the *Overall Program Guidebook for the Renewable Energy Program*. To review the proposed Changes in their entirety, please visit the Energy Commission's Website at <u>http://www.energy.ca.gov/portfolio/documents/index.html</u>, the documents will be made available by 5 pm on Monday, August 23, 2010.

I. Renewables Portfolio Standard Eligibility Guidebook

Eligibility

- Biodiesel. Adds specific fuel attestation requirements and removes duplicative requirements for supplemental application submissions.
- Biogas. Lists biogas as a stand-alone renewable eligible resource separate from the multi-fuel requirements section. Other changes to the biogas eligibility requirements include:
 - Clarifies acceptable methods of transporting the biogas;
 - Clarifies the eligibility of biogas to include transportation to an RPS-eligible electric generating facility that is located outside of California (but within the WECC); and
 - Clarifies the documentation required to be submitted with the application for RPS eligibility to demonstrate that requirements for delivery are satisfied.
- Biomass. Adds clarifying language on the de minimis requirements for biomass facilities and information on the fuel procurement attestation and fuel use. Removes duplicative requirements for supplemental application submission.
- Fuel Cells. Clarifies eligibility requirements for fuel cells using renewable fuels.
- Hydroelectric. Incorporates changes in law addressing eligibility of small hydroelectric and incremental hydroelectric facilities as follows:
 - Implements Assembly Bill 3048,¹ allowing existing small hydroelectric facilities owned or under contract with local publicly owned electric utilities prior to January 1, 2006, to be eligible for the RPS;
 - Implements Assembly Bill 1351,² allowing incremental hydroelectric generation from out-of-state facilities to receive their Section 401 certification under the federal Clean Water Act from the applicable state board or agency, and requires incremental generation from hydroelectric facilities to be owned by a retail seller or a local publicly owned electric utility.
- Municipal Solid Waste Conversion. Clarifies eligibility for MSW conversion facilities by allowing facilities located outside of California to be RPS eligible by submitting operating permits from the local governing body responsible for permitting solid waste facilities in that region.

¹ Assembly Bill 3048 (Statutes of 2008, Chapter 558), as codified in Public Utilities Code Section 224.3.

² Assembly Bill 1351 (Statutes of 2009, Chapter 252), amends pertinent provisions Public Utilities Code Section 399.12.5.

Attachment A: Summary of Revisions to the RPS Eligibility Guidebook and Overall Program Guidebook

- Renewable Facilities using Multiple Resources. Changes requirements for renewable facilities using multiple resources to:
 - Clarifies what constitutes a multi-fuel facility.
 - Clarifies what fuel types can be included in the de minimis of nonrenewable fuel use.
 - Requires all facilities using multiple energy inputs, including those that meet the de minimis requirements, to supply a measurement methodology that will be used to measure the contribution of each resource and fuel type. Appropriate measurement methodologies are provided.
- Out-of-State Facilities.
 - Clarifies the eligibility requirements for out-of-state facilities.
 - Requires submission of environmental documentation to support the claims made in the LORS analysis.
 - Adds "Noise" to the list of LORS required to be reviewed in the LORS analysis.
- Energy Delivery Requirements. Provides new instructions on using NERC E-tags to verify energy delivery from out-of-state facilities. Detailed instructions are included in Appendix B.

Certification

- Allows existing small hydroelectric and out-of-state baseline facilities owned or under contract to a POU to be RPS eligible.
- Describes the process for receiving a biogas delivery approval letter and the situations for which one will be provided.
- Adds limitations on the eligibility of past generation from eligible facilities not yet certified for the RPS.
- Clarifies requirements for registration in WREGIS, and places limits on the use of the Interim Tracking System.

Application Process

- Clarifies and adds requirements for submission of applications.
- States that the CEC-RPS-2 form will no longer be accepted as a valid application form for RPS certification or pre-certification.
- Sets the requirements to repower a conduit hydroelectric facility as the same to repower small hydroelectric facilities.

Tracking and Verification

- Describes the method the Energy Commission will use to transition from the Interim Tracking System to WREGIS for the verification process.
- Provides detailed instructions on how the REC retirement process will work for both the Interim Tracking System and WREGIS.
- Removes duplicate information about accounting for out-of-state, incremental generation from this section.

Attachment A: Summary of Revisions to the RPS Eligibility Guidebook and Overall Program Guidebook

- Adds detailed instructions in Appendix B on how to use NERC E-tags to verify delivery using WREGIS and how to retire RECs in WREGIS.
- Changes the date to submit RPS compliance reports to the Energy Commission from May 1 to June 1 of each year.

Publicly Owned Electric Utilities

- Incorporates AB 3048 (Statutes of 2008, chapter 558), which moved the definition of a local publicly owned electric utility to Public Utility Code Section 224.3. AB 3048 allows RPS certification for existing small hydroelectric facilities owned or selling to POUs.
- Changes the date to submit reports by POUs to the Energy Commission from May 1 to June 1 of each year.

II. Overall Program Guidebook

Glossary of Terms

The following terms have been revised or added:

- Biogas
- Biomass
- Central station
- Distributed generation
- Hydroelectric
- Local Publicly owned electric utility
- Nonrenewable energy resource
- On-site generation
- Procurement
- PTC (PVUSA Test Conditions)
- Renewable Energy Certificate (REC)
- Self-generation
- WECC interconnection
- Western Renewable Energy Generation Information System (WREGIS)

The following specific topics are not directly addressed as proposed revisions to the draft version of Renewables Portfolio Standard Eligibility Guidebook at this time. However, Energy Commission staff seeks stakeholder input on these issues before considering these topics further. To review the proposed changes to the draft RPS Guidebook in underline/strikeout format, please visit the Energy Commission's Website at http://www.energy.ca.gov/portfolio/documents/index.html, the documents will be made available by 5 pm on Monday, August 23, 2010.

1. Multi-Fuel Facilities and the De Minimis Quantity of Nonrenewable Fuels

Section 399.12(f)(3) of the Public Utilities Code states that "no electricity generated by an eligible renewable energy resource attributable to the use of nonrenewable fuels, beyond a de minimis quantity, as determined by the Energy Commission, shall result in the creation of a renewable energy credit." Under this authority, the Energy Commission determined that to count 100 percent of the electricity generated by an eligible facility toward the RPS obligations of a retail seller, at least one of three conditions must be met (these conditions as outlined in the third edition of the RPS Eligibility Guidebook are provided at the end of this attachment). For facilities that do not meet one of the three conditions, the Energy Commission allows such facilities to be RPS eligible, but only considers the electricity generation attributable to eligible renewable energy to count toward the RPS obligations of a retail seller.

The Renewables Committee proposes consideration of the following revisions to the RPS eligibility requirements for multi-fuel facilities (the revisions being proposed here are shown in red underline/strikeout text, the revisions in black underline/strikeout text are the revisions incorporated into the fourth edition draft guidebook) :

1. If the <u>total</u> annual <u>non-renewable energy resourcesfossil fuel-used simultaneously to</u> <u>generate electricity</u> at the facility does NOT exceed a <u>de minimusde minimis</u> amount<u>as</u> <u>defined in this guidebook</u>, then 100 percent of the electricity production from the facility may count as RPS-eligible. De <u>minimusminimis</u> for facilities seeking RPS eligibility is <u>no</u> <u>more than</u> 2 percent of all <u>energy inputsfuels</u> used <u>simultaneously to generate</u> <u>electricity</u> and measured on an annual total energy input basis, <u>which is to be</u> <u>determined by identifying all energy inputs and calculating the energy value that each</u> <u>input has contributed to electricity generation at the facility during each calendar year</u>. It <u>is the responsibility of the facility to demonstrate the ability to differentiate between</u> <u>energy used simultaneously to generate electricity and energy used for other purposes</u> <u>than simultaneous electricity generation</u>. Note that de <u>minimus</u> for facilities <u>seeking eligible for or receiving RPS eligibility and</u> funding under the Energy Commission's Existing Renewable Facilities Program is 5 percent of all <u>energy</u> <u>inputs</u>fuels used and measured on an annual energy input basis, <u>as long as the facility</u> <u>remains eligible for the Existing Renewable Facilities Program</u>. If the facility ceases to be

eligible for the Existing Renewable Facilities Program, it must meet the 2 percent de minimis level to count 100 percent of its generation as TPS eligible.

2. In the past, the Energy Commission's Renewable Energy Program provided that renewable facilities using <u>non-renewable energy resourcesfossil fuels</u> were eligible for funding as long as the percentage of <u>non-renewable energy resourcesfossil fuel</u> used did not exceed 25 percent of the total energy input of the facility during a given calendar year. The Energy Commission will provide the same treatment under the RPS for renewable facilities that commenced commercial operations before January 1, 2002, were certified and operational as a renewable qualifying small power production facility (QF) pursuant to the federal Public Utility Regulatory Policies Act¹ before January 1, 2002, and are currently certified <u>by the Federal Energy Regulatory Commission (FERC)</u> as a renewable QF facility.

3. Any facility that <u>wasis developed and awarded a renewable</u> power purchase contract as a result of a 2002/2003 Interim RPS procurement solicitation approved by the CPUC under Decision 02-08-071 and Decision 02-10-062 may use up to 25 percent <u>non-</u> <u>renewable energy resources</u>fossil fuel, measured on an annual total energy input basis, and count 100 percent of the electricity generated as RPS-eligible.

The Energy Commission may allow multi-fuel facilities <u>that use fossil fuel</u>- or other nonrenewable energy resources, but that do not meet one of the above criteria, to be certified as RPS-eligible. For facilities that use no more than 25 percent non-renewable energy simultaneously to generate electricity on a total annual energy input of the fuels, the facility may include an additional 2 percent of that fuel attributed to the de minimis as renewable. For facilities that use more than 25 percent non-renewable energy simultaneously to generate electricity, but only the renewable portion of their generation will count as RPS eligible, and only when the Energy Commission approves a method to measure the renewable portion (see Measuring the Renewable Generation from Multi-Fuel Facilities below).

If a facility meets the above criteria, the Energy Commission will certify or pre-certify the facility-as by the fuel technology type of the primary renewable fuel-technology used. For example, if a solar thermal electric facility is a QF co-fired with less than 25 percent natural gas and was a PURPA-certified renewable QF before January 1, 2002, (fossil fuel use must meet the criteria of the Public Utility Regulatory Policies Act [PURPA] including not to exceed 25 percent of the fuel use), then the facility will be certified as "solar thermal electric" and all generation may be considered RPS eligible. The certificate issued will note both the annual non-renewable energy used and the eligibility of the renewable and non-renewable portions of the generation.

<u>1 Section 1253 of the Energy Policy Act of 2005 ("EPAct") added Section 210(m) to Public Utility</u> Regulatory Policies Act of 1978 ("PURPA").

Measuring the Renewable Generation From Multi-Fuel Facilities

The Energy Commission will allow one of the methods provided below for measuring the fraction of a multi-fuel facility's electricity output that is attributable to renewable energy resources. An applicant for RPS pre-certification or certification of such a <u>multi-fuel</u> facility must <u>indicate onsubmit with its-the</u> application for RPS pre-certification or certification <u>which of these methods</u> a proposal for an appropriate method will be used by the facility to measure the renewable fraction of the facility's generation. Alternatively, an applicant may submit an alternative measurement method if it can be demonstrated to the Energy Commission's satisfaction that the method is superior to the methods discussed below and is the most appropriate method for that technology or <u>fuel</u>. The measurement should be based on the total annual energy input of the <u>energy</u> resourcesfuels and be measurable on a monthly basis. The Energy Commission will evaluate and consider the proposed <u>measurement</u> method as part of the facility's application for pre-certification or certification. The applicant must report the fraction of renewable energy relative to total electricity generation from a multi-fuel facility to WREGIS on a monthly basis.

<u>Combustion technologies and fuel cell technologies: For eligible renewable resources</u> <u>using the combustion of renewable fuels to generate electricity, such as biomass or</u> <u>digester gas, the percentage of the total generation attributable to the RPS-eligible source</u> <u>shall be determined by the ratio of the eligible renewable energy input (MMBTU) to the</u> <u>total energy input (MMBTU) added to generate electricity or improve the efficiency by</u> <u>adding heat to the system, given by the following equation:</u>

Percent Renewable

$$= \frac{\sum (MMBTU)_{RPS}}{\sum (MMBTU)_{RPS} + \sum (MMBTU)_{non-RPS} + \sum ((MWh)_{grid} \cdot \frac{3.412 \text{ MMBTU}}{1 \text{ MWh}})}$$

 $(MWh)_{grid} = Grid \ Electric tiy \ adding \ heat \ to \ the \ system(MWh)$ $(MMBTU)_{RPS} = RPS \ Eligible \ Renewable \ Fuel(s) \ (MMBTU)$ $(MMBTU)_{non-RPS} = Non - Renewable \ Fuel(s) \ (MMBTU)$

Non-combustion, thermal technologies: Renewable technologies that do not use a combustion process to generate RPS-eligible electricity, such as solar thermal and geothermal technologies, have two possible methods to measure the renewable contribution to the total generation.

The first option takes the ratio of the total non-renewable energy (grid electricity and non-renewable energy inputs) contributing thermal energy to the systemused simultaneously to generate electricity- to the total generation of the facility, and subtracts it from one. The contribution of the non-renewable fuel will be measured by the generation that an equivalent amount of MMBTUs of natural gas would produce at a combined cycle natural gas facility. The result of the equation, provided below, is the contribution attributable to the non-combustion renewable technology.²

 $Percent Renewable = 1 - \frac{\left[(MMBTU)_{non-RPS} \cdot \frac{1 MWh}{3.413 MMBTU} \cdot 0.537 + (MWh)_{grid} \right]}{(MWh)_{Total}}$

 $(MWH)_{Total} = Total \ electricial \ generation \ of \ all \ generators,$

not the net electricial output of the facility(MWh)

Please consider and comment on the above proposed changes to the RPS Eligibility Guidebook regarding multi-fuel facilities and the de minimis amount of fossil fuel use that would be allowed and still count 100 percent of the electricity generated by the facilities toward RPS compliance. In addition, please also comment on whether the Energy Commission should consider or reconsider any or all of the following:

- a. What fossil fuel or nonrenewable energy resource uses should be counted as contributing to the nonrenewable fuel use in the energy input measurement methodology for generation from multi-fuel facilities;
- b. What level of fossil fuels or other nonrenewable energy resources constitutes a "de minimis amount" of fossil fuel or other nonrenewable energy resources that should count as "renewable" for RPS obligations;
- c. Should the de minimis level be different for specific facilities based on energy resource, technology, operations, or benefits to the grid? If so, please suggest criteria that is reasonable and describe any parameters;
- d. Should a measurement methodology be based on plant operations or efficiencies rather than just actual energy input.

In responding to the above questions, please address the effects, if any, these changes would have on the RPS program, California's grid reliability, existing and future facilities, and other renewable technologies.

² These values are identical to those used by the Energy Commission's "Siting, Transmission and Environmental Protection Division" to estimate solar thermal generation from solar thermal plants; the overall calculation has been adapted to include any grid electricity use at the facility and to result in a percent instead of a MWh total. The Siting Division's calculation is X MMBTU x (1 kWh/3,413 BTU) x (1,000,000 BTU/MMBTU) x (1 MWh/1,000 kWh) x 0.537.

For reference, excerpts of similar requirements for fossil fuel use at renewable facilities (i.e. the PURPA requirements for renewable Qualifying Facilities and WREGIS Operating Rules) are provided at the end of this attachment.

2. Retroactive Renewable Energy Credits in WREGIS

WREGIS staff has been considering whether to allow previous generation to be uploaded to the WREGIS system after the REC creation period has closed – termed retroactive RECS – beyond what is currently allowable in WREGIS. There are at least two situations that would be affected by a change to current practice.

The WREGIS administrator does not approve a generating unit into the system until after the unit operator declares the commercial online date (COD) for the facility. Under current practice WREGIS will only create RECs for energy generated during the month of COD going forward, and will not create RECs for any period prior to the month of COD. This practice in effect disallows test energy to count toward the creation of a REC because test energy is generated before COD. The Energy Commission is working with WREGIS staff and other stakeholders to change WREGIS' functionality to allow test energy to be used to create RECs.

The second situation applies to a facility that is already online when registering with WREGIS. In this case, WREGIS only accepts generation for the previous 75 days (the length of a reporting period) to count toward a REC. WREGIS stakeholders are currently considering this issue. If WREGIS is changed to allow RECs to be uploaded retroactively (beyond 75 day reporting period):

- a. Should the Energy Commission consider allowing generation from facilities already online but not previously registered in WREGIS to upload retroactive RECs for generation prior to the previous 75-day reporting period to count for RPS compliance? If no, should retroactive RECs be limited to test energy? Why or why not?
- b. Should there be a time limit (besides the limitation of two years for a Prior Period Adjustment that is hard coded in the WREGIS system) for generation prior to the upload date, and what should the limit be?

3. Biogas Delivery via Injection into the Natural Gas Pipeline System

Currently any biogas production facility that injects biogas into a natural gas pipeline and is able to contractually deliver through any number of physically interconnected pipelines to California or an electric generating facility (as proposed for facilities located outside California in the *Staff Draft RPS Eligibility Guidebook, Fourth Edition*) may be considered as an eligible fuel source for biogas electricity generation at an RPS-eligible

facility. Biogas production facilities are not currently limited to being located in the WECC.

- a. Should the Energy Commission consider further restricting the location of eligible biogas production facilities to participate in California's RPS? If so, please suggest reasonable and verifiable parameters.
- b. If other restrictions should be considered, what should those restrictions be?
- c. Should the use of storage facilities be disallowed in the delivery of biogas to an RPS-eligible biogas electricity generating facility? If yes, why and under what conditions?
- d. Should the use of natural gas storage facilities to store biogas in a natural gas pipeline system be treated differently than the transportation of biogas through a natural gas pipeline system? If yes, please explain.

4. Municipal Solid Waste as an Eligible Biomass Feedstock

Electricity generation from facilities utilizing municipal solid waste as a fuel is eligible for the RPS in two technology categories, solid waste combustion and solid waste conversion. A facility using solid waste combustion technology is RPS eligible only if operational before September 1996 and located in Stanislaus County. A facility using solid waste conversion technology must use a gasification conversion process that meets strict eligibility criteria during the conversion process, and must also meet the following requirements:

- The facility accepts and processes "solid waste" as defined in Public Resources Code Section 40191 and is not limited to receiving and processing "source separated" waste as defined in Title 14, California Code of Regulations, Section 17402.5(b)(4).
- The facility processes solid waste from which, as much as possible, all recyclable materials and marketable green waste compostable materials have been removed before the solid waste conversion process.
- All recyclable materials and marketable green waste compostable materials that have been removed from solid waste delivered to the facility are recycled or composted.
- Any local agency sending solid waste to the facility diverted at least 30 percent of all solid waste it collects through solid waste reduction, recycling, and composting.

According to Public Resources Code 40180, "recycling" means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace. If MSW is handled and processed into a

different or new product for a purpose other than for a landfill, as determined by the Department of Resources Recycling and Recovery (CalRecycle), then it is no longer regulated by CalRecyle as "solid waste."

A facility utilizing biomass to generate electricity is eligible for the RPS provided that the facility uses a biomass fuel as defined by the Energy Commission. The *Overall Program Guidebook* defines biomass broadly and includes "any organic material not derived from fossil fuels." Because MSW contains a mixture of organic and inorganic and fossil-fuel based materials, the Energy Commission does not consider MSW as an eligible biomass feedstock.

- a. If MSW is processed and handled such that CalRecycle makes a determination that it is not solid waste, should the Energy Commission reconsider the MSW as an eligible biomass fuel for the RPS?
- b. If the answer to "a" above is "yes," should the material be limited to the organic fraction that remains after recyclables and compostables have been removed?
- c. Is there a reasonable amount of fossil fuel fraction that can remain after recyclables and compostables have been removed from MSW such that 100 percent of the material can be considered renewable for purposes of the RPS?
- d. Is the fossil fuel fraction remaining after processing measurable? If so, how? What is a reasonable amount of remaining material from fossil fuel that could render 100 percent of the material as an eligible biomass feedstock?

Fossil Fuel use of Qualifying Small Power Production Facilities (QFs) Under the Public Utility Regulatory Policies Act³

Title 18: Conservation of Power and Water Resources

§ 292.204 Criteria for qualifying small power production facilities.

(b) *Fuel use.* (1)(i) The primary energy source of the facility must be biomass, waste, renewable resources, geothermal resources, or any combination thereof, and 75 percent or more of the total energy input must be from these sources.

(ii) Any primary energy source which, on the basis of its energy content, is 50 percent or more biomass shall be considered biomass.

(2) Use of oil, natural gas and coal by a facility, under section 3(17)(B) of the Federal Power Act, is limited to the minimum amounts of fuel required for ignition, startup, testing, flame stabilization, and control uses, and the minimum amounts of fuel required to alleviate or prevent unanticipated equipment outages, and emergencies, directly affecting the public health, safety, or welfare, (emphasis added) which would result from electric power outages. Such fuel use may not, in the aggregate, exceed 25 percent of the total energy input of the facility (emphasis added) during the 12-month period beginning with the date the facility first produces electric energy and any calendar year subsequent to the year in which the facility first produces electric energy.

³ (Energy Security Act, Pub. L. 96–294, 94 Stat. 611 (1980) Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 2601, *et seq.*, Energy Supply and Environmental Coordination Act, 15, U.S.C. 791, *et seq.*, Federal Power Act, as amended, 16 U.S.C. 792 *et seq.*, Department of Energy Organization Act, 42 U.S.C. 7101, *et seq.*; E.O. 12009, 42 FR 46267)

^{[45} FR 17972, Mar. 20, 1980, as amended by Order 135, 46 FR 19231, Mar. 30, 1981; Order 575, 60 FR 4857, Jan. 25, 1995; Order 732, 75 FR 15966, Mar. 30, 2010]

WREGIS Operating Rules⁴

5.3.4 Registration of Multi-Fuel Generating Units

A Multi-Fuel Generating Unit is one that is capable of producing energy using more than one fuel type. The facility must register with WREGIS as a Multi-Fuel Generating Unit, if each of the fuels used is greater than 1% annually on a total heat input basis measured in BTUs, excluding fuels used for start-up. However, Generating Units that use a single renewable fuel type and no more than 2% fossil fuel annually on a total heat input basis are not required to register as Multi-Fuel Generating Units and may have WREGIS Certificates issued for 100 percent of their output. (Emphasis added) If the relative quantities of electricity production (percentage of MWhs produced) from each fuel cannot be measured or calculated, and verified and documented by an independent engineer, the Generating Unit is not eligible to register in WREGIS as a Multi-Fuel Generating Unit, as the Account Holder must enter these relative quantities in WREGIS to create Certificates by fuel type.

For purposes of creating WREGIS Certificates for Multi-Fuel Generating Units, the proportion of Certificates attributable to each fuel type shall be determined consistent with the following rules:

9.8.3.1 Biomass

For biomass co-fired with fossil fuels or using fossil fuels for startup or supplemental firing: In each month, the Certificates for each fuel in each Multi-Fuel Generating Unit will be created in proportion to the ratio of the net heat content of each fuel consumed to the net heat content of all fuel consumed in that month, adjusted to reflect differential heat rates for different fuels, if applicable.

9.8.3.2 Solar Thermal

For solar thermal energy co-fired with fossil fuels, or using fossil fuels for startup or supplemental firing: In each month, the fraction of Certificates for each fossil fuel used in such a facility will be calculated as the ratio of the net heat content of the fuel divided by the plant's heat rate operating on that fuel to the total net electricity production of the Generating Unit during that month. The fraction of Certificates designated as solar thermal will be imputed as the remaining fraction of production not attributed to fossils fuel(s) consumed in the plant during that month.

⁴ http://www.wregis.org/Documents.php, pages 12, 32-33. Accessed July 22, 2010.

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6. Renewable Facilities Using Multiple Fuels

The Energy Commission will allow options for RPS-eligibility of renewable facilities that use multiple fuels or resources to generate electricity, such as co-fired fuels or a mix of fuels that includes fossil fuels. To count 100 percent of the electricity generated toward RPS obligations from such a multi-fuel facility, one of the following three conditions must be met.

- 1. If the annual fossil fuel use at the facility does NOT exceed a *de minimus* amount, then 100 percent of the electricity production from the facility may count as RPS-eligible. *De minimus* for facilities seeking RPS eligibility is 2 percent of all fuels used and measured on an annual total energy input basis. Note that *de minimus* for facilities seeking RPS eligibility and funding under the Energy Commission's Existing Renewable Facilities Program is 5 percent of all fuels used and measured on an annual energy input basis.
- 2. In the past, the Energy Commission's Renewable Energy Program provided that renewable facilities using fossil fuels were eligible for funding as long as the percentage of fossil fuel used did not exceed 25 percent of the total energy input of the facility during a given calendar year. The Energy Commission will provide the same treatment under the RPS for renewable facilities that commenced commercial operations before January 1, 2002, were certified and operational as a renewable qualifying small power production facility (QF) pursuant to the federal Public Utility Regulatory Policies Act before January 1, 2002, and are currently certified as a renewable QF facility.
- 3. Any facility that is developed and awarded a power purchase contract as a result of a 2002/2003 Interim RPS procurement solicitation approved by the CPUC under Decision 02-08-071 and Decision 02-10-062 may use up to 25 percent fossil fuel, measured on an annual total energy input basis, and count 100 percent of the electricity generated as RPS-eligible.

The Energy Commission may allow multi-fuel facilities that do <u>not</u> meet one of the above criteria to be certified as RPS-eligible, but only the renewable portion of their generation will count as RPS eligible, and only when the Energy Commission approves a method to measure the renewable portion. An applicant for RPS pre-certification or certification of such a facility must submit with its application for RPS pre-certification or certification a proposal for an appropriate method to measure the renewable fraction of the facility's generation. The measurement should be based on the total annual energy input of the fuels. The Energy Commission will evaluate and consider the proposed method as part of the facility's application for pre-certification or certification.

If a facility meets the above criteria, the Energy Commission will certify or pre-certify the facility as the fuel type of the renewable fuel used. For example, if a solar thermal electric facility is co-fired with natural gas (fossil fuel use must meet the criteria of the Public Utility Regulatory Policies Act [PURPA] including not to exceed 25 percent of the fuel use), then the facility will be certified as "solar thermal electric." To participate in the RPS, the multi-fuel

facility must be registered in the WREGIS accounting system and comply with WREGIS' requirements, including those for metering, and for reporting and updating the renewable portion of the fuel mix.