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California Energy Commission 1516 Ninth Street Sacramento, CA 95814-5512

**RE:** Renewables Portfolio Standard Eligibility Draft Staff Guidebook, 4<sup>th</sup> Edition Docket No. 03-RPS-1078

**Dear Commissioners:** 

On behalf of the Sempra Energy utilities, San Diego Gas and Electric (SDG&E®) and Southern California Gas Company (SoCalGas®), we respectfully submit the following comments on the Renewables Portfolio Standard Eligibility Draft Staff Guidebook, 4<sup>th</sup> Edition [(CEC 300-2010-007-SD), *RPS Eligibility Draft Guidebook*].

#### 1. Definition of Biomethane

Sempra Energy utilities requests that a definition for biomethane be added to supplement the existing definition of biogas (please see Attachment A for suggested language). It is very important for all interested parties to understand that gas suppliers have the obligation to provide merchantable, interchangeable gas that is free of hazardous substances for transportation in our pipelines. In general, untreated biogas cannot be injected into our natural gas pipelines, as noted on page 18 of the *RPS Eligibility Draft Guidebook* ("The biogas must meet strict heat content and quality requirements within a narrow band of tolerance to qualify as pipeline-grade gas"). Please note that the generally accepted term for "pipeline-grade gas" is pipeline-quality gas. Untreated biogas must be treated (conditioned) prior to injection into our natural gas pipeline, and it is conditioned biogas, which we define as biomethane.

Adding a biomethane definition would help clarify the critical difference between untreated and conditioned biogas. Since the existing definition of biogas does not mention any type of conditioning, our suggested definition of biomethane references California Public Utility Commission (CPUC) natural gas specifications, which include SoCalGas' and SDG&E's Rule No. 30¹ (see section I). A biomethane definition would also simplify writing and implementation of the amendments to the *RPS Eligibility Draft Guidebook* (please see suggested edits in Attachment A). The biomethane definition would also need to be added to the Renewable Energy Program Overall Program Draft Staff Guidebook, 3<sup>rd</sup> Edition [(CEC 300-2010-008-ED3-SD), *Overall Program Draft Guidebook*].

<sup>1</sup> http://www.socalgas.com/regulatory/tariffs/tm2/pdf/30.pdf

## 2. Biomethane injected into a pipeline cannot be tracked physically

Sempra Energy utilities requests clarifying language regarding delivery of biogas (biomethane) (see suggested edits in Attachment A). Pipeline-quality natural gas is a fungible product (a commodity that is freely interchangeable with another in satisfying an obligation). Natural gas pipeline companies manage both the contractual flow and the physical flow in their pipelines. The actual physical flow of natural gas in the pipeline rarely coincides with the contractual flow. We anticipate that biogas producers will contract with an RPS-eligible facility that is physically far removed from the biogas production facility. The producers will treat the biogas, and inject it into a pipeline system as biomethane for customer transport and delivery. However, biomethane molecules injected into a natural gas pipeline at the producer's site are rarely (if ever) the same gas molecules withdrawn at a customer/designated RPS-eligible facility. We recommend that contractual agreements be used to track biomethane injected into natural gas pipelines. Such contract tracking mechanisms already exist for transport of customer-owned natural gas. Sempra Energy utilities do not oppose consideration or development of means to support tracking of biomethane in addition to use of contractual agreements with pipeline operators should that be feasible.

An example of language that needs to be clarified is on Page 17, Section 2 of the RPS Eligibility Draft Guidebook, ["...biogas must be delivered to the electric generating facility by one of the following methods: ...3. Natural gas pipeline: The biogas is injected into a natural gas pipeline and withdrawn at the designated RPS-eligible electric generation facility."] It is not possible to guarantee that biomethane injected into a utility pipeline is actually withdrawn and used at a specific facility. Please see Attachment A for our suggested language changes regarding delivery of biomethane.

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

Staff requested stakeholder feedback on workshop materials, *Attachment B: Questions Concerning Possible Changes to the Renewable Portfolio Standard Eligibility Guidebook.* 

Specifically, staff asked if the use of natural gas storage facilities should be allowed in the delivery of biogas to an RPS-eligible biogas generating facility.

Sempra Energy utilities support the use of storage facilities like underground storage fields in the contractual delivery of biomethane to an "RPS-eligible biogas electricity generating facility". However, as discussed above, pipeline-quality natural gas is a fungible product. Once conditioned biogas (biomethane) is injected into our system, it cannot be physically tracked. We operate underground natural gas storage fields in California that are integral to the operations of our pipeline system. Similar to our comments regarding delivery of biomethane, we recommend the use of contractual agreements to track biomethane injected into natural gas pipelines and storage facilities such as underground natural gas storage fields. Because biomethane is interchangeable with natural gas, there is no need for different treatment of natural gas storage facilities integral to pipeline systems that may also store biomethane gas from the transportation of biogas (biomethane) through a natural gas pipeline system.

# 4. Municipal Solid Waste (MSW) as an Eligible Biomass Feedstock

Regarding the questions of processed and handled MSW as an eligible biomass fuel for the RPS, Sempra Energy utilities believes that properly separated, organic biomass originally derived from MSW should be an eligible biomass fuel for RPS. Specifically "marketable green-waste compostable materials" should be allowed as digester feedstock and not be restricted to composting facilities. Compostable organic green-waste can be a beneficial digester feedstock that increases methane yield and should not be excluded as a RPS eligible biomass feedstock.

Aside from the specific staff questions, we believe that solid waste conversion technologies using gasification conversion processes have greatly evolved, and that the overly restrictive RPS eligibility criteria for facilities using this technology should be revisited including consideration of legislation if necessary. Some examples of what we consider to be overly restrictive eligibility criteria include the following:

- The technology produces no discharges of air contaminants or emissions, including greenhouse gases as defined in Section 42801.1 of the Health and Safety Code.
- The technology produces no discharges to surface or ground waters of the state.
- The technology produces no hazardous wastes.

We appreciate the opportunity to comment and look forward to further discussing these issues with staff as the RPS Eligibility Draft Guidebook and Overall Program Draft Guidebook are finalized.

Sincerely,

Tamara Rasberry

### **ATTACHMENT A**

Proposed additions and amendments by Sempra Energy utilities (amendments shown in underline or strikeout)

1. Please add a definition of biomethane to both the *Overall Program Draft Guidebook* and the *RPS Eligibility Draft Guidebook* (see below), and amend the biogas definition as suggested.

**Biogas** — includes digester gas, landfill gas, <u>biomethane</u>, and any gas derived from an eligible biomass feedstock.

<u>Biomethane</u> — is biogas that has been upgraded or otherwise conditioned to meet CPUC natural gas specifications and is suitable for injection into natural gas pipeline systems operated by public and private utilities.

2. Please consider the following edits for the sections on the pages noted.

#### **Page 17**

#### 2. Biogas

RPS-eligible biogas is a (gas derived from RPS-eligible fuel including such as biomass, or digester gas, and/or landfill gas, and/or biomethane). Biogas may be used to generate electricity at the fuel processing site, or transported in a pipeline owned by a load-serving entity (LSE) or contracted for transportation in a pipeline company pipeline forto an RPS-eligible electric generating facility. If the biogas is processed and used to generate electricity at the same site, the two processes are considered to be at the same facility and no information on the delivery of the biogas from the processor to the generator is required. If, however, the fuel is not processed and used to generate electricity at the same site, then the biogas or biomethane must be delivered or contracted for transportation in a pipeline byto the electric generating facility by one of the following methods:

- 1. Fuel container: The biogas is injected into a fuel container containing only biogas and then the container is transported to the generation site by a vehicle (i.e. truck); or
- 2. Dedicated pipeline: The biogas is injected into a pipeline running from the fuel processing facility to the generation facility with no possibility of mixture with non-RPS-eligible gas; or
- 3. Natural gas pipeline: The biogas is Biomethane may be injected into a natural gas pipeline and withdrawn at contracted by the designated RPS eligible electric generation facility. See below for additional instructions regarding delivery or contracted transportation of biogasmethane.

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All applicants for facilities using biogas delivered to <u>or contracted for transportation in a pipeline by</u> the electric generation facility must include with the certification or pre - certification application: 1) an attestation from the operator of the fuel processing facility that the biogas meets RPS eligibility requirements and that the biogas and its renewable attributes have been conveyed along with the biogas and uniquely <u>purchased by sold for the purpose of use at the designated</u> electric generating facility, and 2) an attestation from the operator of the designated electric generating facility of the intent to procure biogas fuel that meets RPS eligibility requirements. <u>for use at the designated electric generating facility</u>. In the event that both the fuel processing and electric generating facilities are

operated by the same entity, a single attestation that the fuel meets RPS eligibility requirements and that none of its renewable attributes have been sold to another entity will suffice.

In addition to the certification or pre - certification application, applicants for biogas facilities must complete the Biopower supplemental application form.

The amount of RPS - eligible electricity produced shall be calculated by multiplying the generation of the facility in megawatt - hours (MWh) by the ratio of the biogas (BTU) delivered <u>or contracted for transportation</u> to the total gas (BTU) used by the facility. The electricity generated and biogas gas must be measured <u>or calculated</u> over an equal and overlapping period (such as MWh produced per month and biogas (BTU) <u>procuredused</u> in the same month). See Section II 8: Renewable Facilities Using Multiple Energy Resources, for more information on how to measure the renewable generation from multi - fuel facilities.

## Biogas Delivery via Injection into a Natural Gas Pipeline Biomethane

Biomethane is biogas that has been upgraded or otherwise conditioned to meet CPUC natural gas specifications and is suitable for injection into natural gas pipeline systems operated by public and private utilities. RPS - eligible biogas-biomethane may be injected into a natural gas transportation pipeline system and transported delivered within or outside into California (or delivered to the electric generation facility if the electric generation facility is located outside of California) for use in an as contracted by a RPS-certified facility, and the resulting generation resulting from the contracted amount may be considered RPS-eligible electricity. It should be noted that the biogas must meet strict heat content and quality requirements within a narrow band of tolerance to qualify as pipeline - gradequality gas. (See the definition for biomethane.)

Quantifying RPS - eligible energy production requires accurate measurement of the amount of biogas biomethane injected into the transportation pipeline system and the measured or calculated heat content of the injected biogasmethane. Although blending the biogas-biomethane into the transportation pipeline system mixes the biogas-biomethane with other pipeline gas, biogas-biomethane entering the system must be designated by contract for use at a specific power plant or to a pipeline system owned by a publicly owned electric utility or other load - serving entity (LSE). Consequently, the amount and energy content (BTU) of the biogas-biomethane or other RPS - eligible gas produced can be measured or calculated and either designated by contract for use at a specific power plant or designated by contract to a pipeline system owned by an LSE. If the biogas is designated 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 facility to which-biogasbiomethane is designated by contract for a RPS - eligible electric generating facility must be certified as RPS - eligible, recognizing that the facility may use a blend of RPS eligible and ineligible fuels.

For facilities that <u>use biogascontract for biomethane</u> and fossil fuel or other nonrenewable fuel inputs but exceed the applicable de minimis amount of nonrenewable fuel that would allow them to count 100 percent of the electricity generated as RPS - eligible, only the portion of generation attributable to <u>biogasbiomethane</u> will count as RPS eligible. The amount of RPS - eligible electricity produced shall be calculated by multiplying the generation of the facility (MWh) by the ratio of the energy of the <u>biogasbiomethane</u> (BTU) injected into the pipeline system <u>under contract to the RPS - eligible facility</u>, and delivered to the total energy of the gases (BTU), biogasmethane and <u>fossil</u> natural gas, used by the

facility. The electricity generated and gas used must be measured over an equal and overlapping period (such as electricity (MWh) produced per month and gas (BTU) used in the same month), See Section II C for more information on how to measure the renewable generation from multi - fuel facilities.

Any production or acquisition of <u>biogasbiomethane</u> that is directly supplied to the gas transportation pipeline system and <u>used contracted</u> to produce electricity may generate RPS-eligible electricity as follows:

- 1. The <u>biogasbiomethane</u> must be produced from an RPS eligible resource, such as biomass, or digester gas, or landfill gas.
- 2. The biogasbiomethane 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 (or delivers to the electric generation facility if the electric generation facility is located outside California) and the gas is delivered as specified below.
- 3. The applicant, or authorized party, must enter into contract(s) for the delivery (firm or interruptible) of the gas with the everyinitial pipeline operator transporting the gas from the injection point to California (or delivers to the electric generation facility if the electric generation facility is located outside of California). Delivery contracts with the pipeline operators may be for delivery with or against the physical flow of the gas in the pipeline. Gas marketers may be the contracting agents for the RPS-eligible electric generating facility. The contracted capacity must be utilized, in a manner consistent with physical delivery of gas in the pipeline system, to deliver the quantity of RPS eligible gas that will be used at the electric generation facility.
- 4. The energy content produced and supplied to the transportation pipeline system must be measured <u>or calculated</u> on a monthly basis and reported annually, illustrated by month. Reporting shall be in units of energy (for example, MMBtu) based on metering of gas volume and adjustment for measured heat content per volume of each gas). 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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- 5. The <u>biomethane</u>biogas must be <u>contracted for transportationused at by</u> a facility that has been certified as RPS eligible. As part of the application for certification, the applicant must attest that the RPS eligible biomethane will be designated <u>under contract</u> to that facility or to the LSE owned pipeline serving the designated facility.
- 6. In its annual RPS Procurement Verification report, the Energy Commission will calculate the RPS eligible energy produced using the same methodology discussed above, if it determines this is necessary.

In addition to the attestations described above, applications for RPS precertification, certification, or renewal amendments must include an attestation from the party(ies) responsible for the delivery or transportation of the RPS - eligible biogas or biomethane. This attestation should indicate that they

will comply with the above conditions for delivery <u>or transportation</u> of RPS - eligible biogas <u>or biomethane</u> and the fuel and its renewable attributes have been uniquely sold for the purpose of <u>use at</u> the designated electric generating facility. The attestation should include a description of the <u>biogas</u> or <u>biomethane</u> delivery <u>or transportation</u> path planned <u>for-from the gas producer to the RPS - eligible <del>biogas</del> facility.</u>