

## DOCKETED

<b>Docket Number:</b>	17-IEPR-10
<b>Project Title:</b>	Renewable Gas
<b>TN #:</b>	220134
<b>Document Title:</b>	Victor Valley Wastewater Reclamation Agency Comments on the 2017 IEPR - Renewable Gas
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Victor Valley Wastewater Reclamation Agency
<b>Submitter Role:</b>	Public Agency
<b>Submission Date:</b>	7/13/2017 6:17:48 AM
<b>Docketed Date:</b>	7/13/2017

*Comment Received From: Kristi Casteel*

*Submitted On: 7/13/2017*

*Docket Number: 17-IEPR-10*

**Kristi Casteel Comments: Comments of Victor Valley Wastewater Reclamation Agency**

*Additional submitted attachment is included below.*



## Victor Valley Wastewater Reclamation Authority

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July 12, 2017

The Honorable Robert Weisenmiller, Chair  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

### **Re: Comments on the 2017 IEPR – Renewable Gas**

Dear Chair Weisenmiller:

The Victor Valley Wastewater Reclamation Authority (VWVRA) submits these comments on the policies and incentives needed to significantly increase renewable gas production and use, as required by SB 1383 (Lara, 2016). VWVRA urges the Commission to provide a thorough assessment of the barriers to renewable gas production and use and to recommend a suite of policies that finally – and significantly – increase renewable gas, as required by SB 1383. The comments below identify several critical barriers and recommend the policies and incentives needed to overcome those barriers.

The VWVRA is a nationally acclaimed treatment facility that treats wastewater for about 300,000 customers in the Victor Valley area of the Mojave Desert, while producing more than 10 million gallons of quality recycled water every day. In addition, VWVRA has an innovative and award winning waste-to-energy program that uses biogas (methane) produced at the plant to generate over 70% of our electricity. VWVRA is involved in implementing the organic waste diversion and dairy methane requirements of SB 1383, as well as other programs to increase renewable gas, including the BioMAT (SB 1122), the Low Carbon Fuel Standard, and pipeline biogas injection (AB 1900).

SB 1383 requires the Commission to develop recommendations for the production and use of renewable gas. That requirement must be read in combination with the subsequent requirement that “state agencies shall consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas, including biomethane and biogas.” (H&S Code 39730.8(c), emphasis added)

VWVRA urges the Commission to include the recommended policies and incentives below to meet the requirement of SB 1383 to significantly increase renewable gas production and use.

#### **1. Need to Provide Long-Term Market Certainty for Renewable Gas.**

Numerous presenters at the June 27 workshop noted the need for long-term market certainty to significantly and sustainably increase renewable gas production and use, as required by SB 1383. VWVRA recommends a Renewable Gas Standard (RGS) or utility procurement requirement to provide long term certainty in the gas market similar to what the Renewables Portfolio Standard

provides in the electricity market. VVWRA also recommends a requirement for long-term contracts or a long-term guarantee of LCFS credit values to provide market certainty for renewable gas used in the transportation sector.

#### A. Renewable Gas Standard

An RGS or renewable gas procurement requirement should include at least the following elements:

- An increasing percentage requirement for renewable gas that enables a smooth and sustainable increase in renewable gas production and use in California.
- A requirement that prioritizes the greatest greenhouse gas and short-lived climate pollutant reductions, as required by H&S code section 39730(e).
- A clear preference for renewable gas produced in-state that helps to meet the policies set forth in H&S Code sections 39730(b) and (c), as well as the goals of AB 2196 (Chesbro, 2012) and AB 1900 (Gatto, 2012) to increase in-state biogas production and use.
- A requirement for long-term (at least 10-year) contracts for renewable gas offtake agreements.
- A requirement that applies to the entire gas supply, not just gas owned by investor-owned utilities.
- A requirement that does not discriminate against renewable gas that is used onsite.

#### B. Long-Term LCFS Values/Contracts

VVWRA also recommends policies to guarantee the long-term value of LCFS credits for renewable gas used as transportation fuel. LCFS credits can be a significant revenue source, but since they fluctuate significantly and obligated entities enter into short-term contracts, they are not certain enough to help finance new projects. To significantly increase renewable gas production and use as transportation fuel, the state should adopt one or more of the following policies to provide long-term certainty around the value of LCFS credits:

- Require long-term contracts for LCFS credits;
- Create an LCFS credit reserve and third party market that provides for long-term contracts and guaranteed credit values for renewable gas producers;
- Set a credit floor price that LCFS credits cannot go below over a ten-year or longer period.

## **2. Need to Adopt Technology Neutral Definitions and Incentive Programs.**

In order to promote the most cost-effective and beneficial uses of renewable gas, state policies and incentive programs should set performance based criteria rather than picking technology winners and losers. Several current policies and programs are restricted to a single technology, which limits the potential for in-state renewable gas production. VVWRA recommends that existing and future policies and incentives be performance based and technology neutral. Current policies and programs that should be revised to be technology neutral include:

### A. Pipeline Biogas Eligibility

Current law limits pipeline biogas access to the biogas produced from anaerobic digestion (H&S Code section 25420). This contradicts the definition of “biogas” under the RPS, which defines biogas as the gas from anaerobic digestion, landfill gas or the gas produced pursuant to Public Resources Code section 40106. The current definition of biogas in the Health and Safety Code excludes RPS eligible biogas from the gasification of organic waste, which is more than half the potential biogas production in California. This also excludes the majority of organic landfill waste, which is not suitable for anaerobic digestion or composting, which would make it difficult or impossible to meet the organic waste diversion requirements of SB 1383.

H&S Code section 25420(a) should be amended to define “biogas” as the gas from anaerobic digestion of organic materials *or the noncombustion thermal conversion of eligible biomass feedstock consistent with Section 40106 of the Public Resources Code.*

### B. GGRF and ARFVTP Funding

Several Greenhouse Gas Reduction funds choose specific technologies rather than setting performance criteria. In addition, the Commission’s ARFVTP program allocates only a small percentage of the total funding to biomethane and other forms of renewable gas.

VVWRA recommends that ARB, CalRecycle, and the Department of Food and Agriculture set performance criteria for the Low Carbon Transportation Fund, Organics Diversion and Dairy Methane programs, respectively, rather than choosing specific technologies. CalRecycle and CDFR should not limit eligibility to anaerobic digestion when additional technologies may be more effective at meeting the program goals of organics diversion and dairy methane reduction. ARB should also set performance and cost-effectiveness criteria for low carbon transportation investments and should ensure that at least some of the fund targets the most polluting vehicle class, which is heavy duty trucks. Finally, the CEC should allocate a much larger portion of the ARFVTP to biomethane and other forms of renewable gas to meet the goals of SB 1383.

## **3. Need to Facilitate Pipeline and Transmission Line Access.**

Despite the adoption of numerous policies in the past five years, both pipeline and transmission line access remain critical barriers to increased renewable gas production and use. Pipeline standards continue to be cost-prohibitive and interconnection costs are both high and unpredictable. VVWRA urges the Commission to recommend a) expanding the dairy methane pilot projects to include additional projects from all waste sectors; b) rate-basing all pipeline and transmission line interconnection costs for biogas projects; and c) recommending that the CPUC accelerate reconsideration of pipeline biogas standards, as required by SB 840, section 11.

California has adopted numerous policies in the past several years to increase pipeline and transmission line access for renewable gas. Those include:

- AB 1900 (Gatto, 2012) – requires CPUC to set pipeline biogas standards to increase in-state biogas production and distribution;
- AB 2196 (Chesbro, 2012) – focuses biogas eligibility under the RPS on in-state production;
- SB 1383 (Lara, 2016) – multiple provisions related to renewable gas and interconnection;

- AB 2313 (Williams, 2016) – increases incentives for pipeline biogas interconnection and requires CPUC to consider rate-basing interconnection costs;
- Section 11 of SB 840 (2016) – requires CPUC and CCST to reconsider pipeline biogas standards for BTU and siloxanes requirements to develop more cost-effective requirements;
- Governor’s Emergency Order on Tree Mortality, paragraph 10 – requires CPUC to expedite interconnection for forest BioMAT projects;
- Section 9 of SB 840 (2016) - requires changes to interconnection deposit requirements for forest BioMAT projects.

Several of these policies have directed the CPUC to rate-base or consider rate-basing interconnection costs to facilitate biogas interconnection and transmission.

There is precedent for rate-basing interconnection costs for both electricity and pipeline transmission. Large-scale renewable power projects are allowed to rate-base transmission upgrade costs, which is the largest part of interconnection costs on the electricity side. SB 1383 also requires the CPUC to rate-base interconnection for no fewer than five dairy pilot projects and AB 2313 requires the CPUC to consider rate-basing pipeline biogas interconnection more generally.

VVWRA urges the Commission to recommend rate-basing the pipeline and transmission line interconnection costs for renewable gas projects to meet the requirements of SB 1383, the Governor’s Emergency Order on Tree Mortality, and the numerous policies calling for increased renewable gas production and use. VVWRA also recommends expanding the CPUC’s dairy pilot program to include rate-basing for an additional 5 or more projects from other biogas sectors. And VVWRA urges the CPUC to finalize the contract with the California Council on Science and Technology, as required by SB 840, so it can review and recommend revisions to the siloxanes and BTU requirements for pipeline biogas.

#### **4. Need to Increase Incentives for Renewable Gas and Low Emission Vehicles.**

California has invested billions of dollars in renewable power, low emission vehicle technologies, smart grid, energy storage and other clean energy technologies. These investments have brought down the costs of renewable generation and energy storage and helped many clean energy technologies to become cost competitive. Significantly increasing renewable gas production and use will require increased investments as well to commercialize technologies, reduce the risk for investors and help to drive down costs over time.

VVWRA recommends increased investments in renewable gas across several programs:

- Increase the allocation of GGRF funds to renewable gas production, particularly the Low Carbon Transportation Fund, Organics Diversion, Dairy Methane and Healthy Forests;
- Increase the allocation of ARFVTP and EPIC funds to renewable gas;
- Increase funding for ultra-low emission natural gas trucks that run on biogas;
- Increase Self-Generation Incentive Program funding for renewable gas generation and use.

#### **5. Need to Increase RD&D for Renewable Gas.**

California's investments in clean energy RD&D have made the state a leader in clean energy technologies and production. The Public Goods Charge (PIER program), EPIC and ARFVTP have all helped to spur new technologies at lower costs and with greater benefits. Unfortunately, the natural gas PIER program now lags far behind the EPIC program and gas R&D funding is well below the level needed to meet the goals of SB 1383 and other state policies. While the EPIC program provides more than \$160 million per year in renewable electricity funding, the natural gas PIER program provides around \$22 or \$23 million per year for gas sector R&D. The lack of R&D funding in the gas sector is one of the reasons why California's gas supply is still 99 percent fossil fuel based.

VVWRA urges the Commission to propose increasing the natural gas PIER program to \$75 million per year and to focus investments on renewable gas production and use, the benefits of renewable gas to stabilize the grid, and gas safety. VVWRA also urges the Commission to continue to prioritize the use of EPIC funding for forest biomass projects that take biomass from High Wildfire Hazard Zones, as required by the Governor's Emergency Order on Tree Mortality, and to prioritize additional EPIC funding for other forms of renewable gas that produce electricity and provide grid benefits.

## **6. Changes Needed to the BioMAT and RPS Programs.**

A recent paper by the National Academy of Sciences (attached) makes clear that bioenergy provides important grid stability benefits as we increase the use of intermittent renewables like wind and solar. Neither the RPS nor the BioMAT program have been successful, though, at increasing biogas production to provide flexible generation power that will be increasingly valuable as California moves toward and beyond 50 percent renewables.

In addition to rate-basing interconnection costs, VVWRA recommends a number of changes to these programs to increase biogas use in the electricity sector:

- Fully account for the increasing value of flexible generation power in comparing different generation technologies;
- Account for the greater urgency of reducing short-lived climate pollutants and the benefits of wildfire reduction to rate-payers and the public;
- Increase the megawatt totals in the BioMAT and limit the "handbrake" provision that stops the entire program if one category reaches the price cap;
- Make onsite generation of equal value to exported power if the generation is flexible generation.

## **7. Determining Priority End Uses.**

SB 1383 requires the Commission to consider cost-effective strategies and priority end uses for renewable gas, consistent with various state policies to promote renewable energy and reduce climate pollutants. VVWRA urges the Commission to consider priority end uses in the short-medium- and long-term, as the highest and best use of renewable gas may change over time. At present, biogas provides the greatest carbon and air quality benefits when it is used to replace diesel in heavy duty trucks. (see *Gamechanger* report, attached) According to ARB's analysis, biogas from organic waste and dairy waste can provide many times the greenhouse gas

reductions that electric vehicles or other low carbon fuels provide. When used in ultra-low emission natural gas trucks, biogas can cut air pollution by more than 90 percent. (see ARB certification of Cummins-Westport 8.9 litre engine, attached).

Determining the highest and best use of renewable gas will most likely lead to different conclusions for different feedstocks in different locations and over different time periods. For instance, the most cost-effective use of biogas produced at fixed locations like wastewater treatment facilities, landfills and dairies will likely depend on their onsite power and fuel needs, proximity to vehicle fleets, pipelines and transmission lines. Over time, vehicle, energy storage and other technology developments may also affect the determination of priority end uses.

VVWRA urges the Commission to identify the factors that affect the cost-effectiveness and relative climate and air quality benefits of different end uses of renewable gas and to develop a decision-making tool (roadmap) to help determine the best end use for particular renewable gas sources. This will be far more helpful to project developers and decision-makers than a fixed determination of the best end use that fails to account for changes over time, between feedstock types and locations.

Thank you for your consideration of these comments.

Respectfully,



Logan Olds  
General Manager, VVWRA