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**02-REN-1038**

**DOCKET**

**11-RPS-01**

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September 30, 2011

California Energy Commission  
Docket Office, MS-4  
1516 Ninth Street  
Sacramento, CA 95814-5512

To Whom It May Concern:

Subject: California Energy Commission (CEC), Docket No. 11-RPS-01 and Docket No. 02-REN-1038: Comments from the Los Angeles Department of Water and Power (LADWP) from the Staff Workshop on the Use of Biomethane Delivered via the Natural Gas Pipeline System to California's Renewable Portfolio Standard

On September 20, 2011, the CEC held a Staff Workshop on the Use of Biomethane Delivered via the Natural Gas Pipeline System for California's Renewable Portfolio Standard (RPS) (Workshop). The LADWP participated in this Workshop and offer the attached comments.

The City of Los Angeles is a municipal corporation and charter city organized under the provisions of the California Constitution. LADWP is a proprietary department of the City of Los Angeles that supplies both water and power to Los Angeles' residents pursuant to the Los Angeles City Charter. LADWP is a vertically integrated utility that owns generation, transmission and distribution facilities.

Biomethane continues to be one of the few renewable energy resources available that provides dispatch and baseload capability. By 2016, LADWP expects to displace 638 GWh of non-renewable natural gas with biomethane. By capturing biomethane for the use of electricity generation rather than releasing it into the atmosphere, we are clearly reducing the amount of greenhouse gases emitted. Furthermore, by injecting biomethane into the existing natural gas pipeline system, LADWP is effectively offsetting the cost of building additional unnecessary infrastructure to supply biomethane to California.

**Water and Power Conservation ...a way of life**

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An electronic file was also submitted to [docket@energy.state.ca.us](mailto:docket@energy.state.ca.us) on September 30, 2011.

If additional information is necessary concerning this matter, please contact Mr. Oscar Alvarez at (213) 367 – 0677, or Mr. Oscar Herrera at (213) 367 – 4880.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy S. Howard". The signature is fluid and cursive, with the first name "Randy" being the most prominent.

Randy S. Howard  
Director of Power System Planning and Development

OH:nsh

Enclosures

c: Mr. Oscar Alvarez  
Mr. Oscar Herrera

BEFORE THE CALIFORNIA ENERGY COMMISSION

In the Matter of:

Renewable Portfolio Standard

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Docket No. 11-RPS-01 and  
Docket No. 02-REN-1038

**COMMENTS FROM THE LOS ANGELES DEPARTMENT OF WATER AND POWER  
TO THE CALIFORNIA ENERGY COMMISSION'S STAFF WORKSHOP ON THE USE  
OF BIOMETHANE DELIVERED VIA THE NATURAL GAS PIPELINE SYSTEM FOR  
CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD**

September 30, 2011

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**BEFORE THE CALIFORNIA PUBLIC UTILITIES COMMISSION**

In the Matter of: )  
Renewable Portfolio Standard ) Docket No. 11-RPS-01 and  
\_\_\_\_\_ ) Docket No. 02-REN-1038

**COMMENTS FROM THE LOS ANGELES DEPARTMENT OF WATER AND POWER TO THE CALIFORNIA ENERGY COMMISSION'S STAFF WORKSHOP ON THE USE OF BIOMETHANE DELIVERED VIA THE NATURAL GAS PIPELINE SYSTEM FOR CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD**

Pursuant to the procedures established by the California Energy Commission (Energy Commission, or CEC) by written notice issued August 16, 2011, which was subsequently revised on August 26, 2011, the Los Angeles Department of Water and Power (LADWP) respectfully submits these Comments on use of biomethane delivered via the natural gas pipeline system for California's Renewable Portfolio Standard (RPS) program.

**I. INTRODUCTION AND OPENING COMMENTS**

The City of Los Angeles is a municipal corporation and charter city organized under the provisions of the California Constitution. LADWP is a proprietary department of the City of Los Angeles that supplies both water and power to Los Angeles's inhabitants pursuant to the Los Angeles City Charter. LADWP is a vertically integrated utility that owns generation, transmission and distribution facilities. LADWP provides safe and reliable retail electrical energy to its approximately 1.4 million customers.

Biomethane continues to be one of the few renewable energy resources available that provides dispatch and baseload capability. By 2016, LADWP expects to

displace 638 GWh of non-renewable natural gas with biomethane. By capturing biomethane for the use of electricity generation rather than releasing it into the atmosphere, we are clearly reducing the amount of greenhouse gases emitted. Furthermore, by injecting biomethane into the existing natural gas pipeline system, LADWP is effectively offsetting the cost of building additional unnecessary infrastructure to supply biomethane to California.

It is important for LADWP that regulations developed for biomethane are not unnecessary and burdensome, simple and effective delivery verification requirements and help advance the goal of encouraging renewable generation.

## II. COMMENTS

California's most recent legislation for its RPS Program requires "each local publicly owned electric utility [to] adopt and implement a renewable energy resource procurement plan that requires the utility to procure a minimum quantity of electricity products from eligible renewable energy resources."<sup>1</sup> SB 2 (1X) requires POU governing board's to adopt an enforcement program by January 1, 2012. Since LADWP is a local publicly owned electric utility, it is required to comply with SB 2 (1X) and biomethane clearly contributes as an eligible renewable energy resource under Section 25741(a)(1) of the Public Resources Code (PRC).

Below are LADWP's responses to the questions issued in the Workshop Notice:

- 1) **The fourth edition of the RPS guidebook requires biomethane to be delivered to California or the electricity generation facility if it is located outside of California before it can be used in the generation facility. Given the two separate pipeline systems in California is it appropriate to require:**
  - a. **Delivery of Biomethane to the gas pipeline system in California from which the facility accepts delivery of gas, or**

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<sup>1</sup> SB 2 (1X) §399.30(a)

- directly to the electricity generation facility if it is located outside of California, or**
- b. Delivery of biomethane directly to the electricity generation facility.**

Assuming that this question is referring to the delivery of biomethane to either the SoCal or PG&E systems, the answer is that *neither* option is appropriate. The arrangements for the flow of gas to affect delivery to the appropriate power generating facility are irrelevant and extremely difficult, if not impossible to account for. The pipeline operator maintains its system conditions by accepting biomethane into its system without distinguishing between gases because the gases are specifically conditioned to meet pipeline standards. Maintaining specified pipeline standards without distinguishing between gases allows the operator to operate its system and deliver gas efficiently.

The gas buyer and seller do not immediately know of any dislocation in their arrangements, whether by problems on the pipeline system or because of the efficiencies the pipeline operator has built into its system. Once gas has been duly accounted for upon reaching California, the details of how a pipeline operator achieves its efficiencies or to determine delivery should not be the focus of the CEC.

**2) Should the Energy Commission consider adding any location requirements to sources allowed to provide biomethane to facilities participating in California's RPS in addition to any restrictions implied by required delivery agreements?**

Location requirements should not be imposed on biomethane energy sources. It is impossible to track biomethane molecules once they have entered the pipeline system: Gas goes into the pipeline from one end and comes back out from another.

Imposing restrictions will limit the ability of utilities to find qualifying renewable resources.

Biomethane is needed to support the other RPS resources that have low capacity factor characteristics. At this early stage of technological development, the CEC should encourage the development of technologies and efficiencies without imposing additional burdens on the resource, its delivery, or location.

- 3) The Energy Commission currently allows backhaul and forward haul transportation agreements that are either firm or interruptible to be considered eligible delivery methods, should the Energy Commission:**
- a. Retain the current requirements?**
  - b. Restrict delivery to only forward haul transportation?**
  - c. Restrict delivery to only firm transportation agreements?**
- Please provide a reason for your response.**

LADWP believes that option "a." which uses the industry practice of nominating gas along a delivery route is the only reasonable tracking mechanism. Ideally the CEC should allow the gas industry to employ these standard industry delivery methods to deliver biomethane resources to the burner tip.

Gas industry deliveries are affected by front hauls, back hauls, displacement, storage, exchanges and imbalance trading. As a comparison with the electric industry, once electrons (an indistinguishable commodity), are sent into the stream of commerce, the electrons will flow based on physics on the path of least resistance. The industry has no way to direct those electrons to the load that has contracted to receive them. However, the industry uses schedules to account for the generation and use of electrons. In the same way, gas is delivered into the pipeline grid, both interstate and intra-state, and the gas industry uses its methods to account for the delivery of the gas

to the ultimate customer. Once biogas enters this stream of commerce, it is indistinguishable from any other methane gas. Biogas should be allowed to be delivered by the same time-tested methods that are used today by the gas industry to make its system of supply and consumption viable.

Even if an end user obtains firm transportation rights over an identifiable path between its supplier and its generation facilities, it cannot always be said that the gas (or any other gas) actually traveled that path to the generation facility. The only obligation a pipeline has is to 1) receive gas into its system at one location and 2) make sure the same volume of gas is delivered to the designated receipt point on its system. Standard industry methods are employed to meet this obligation.

As stated earlier, at this early state of technological development, the CEC should encourage the development of technologies and efficiencies without imposing additional burdens on the resource, its delivery, or location. Therefore, the CEC should not impose burdens to modify existing and efficient gas supply and delivery process. Otherwise, biomethane participants will end up mired in a swamp of regulatory compliance rules that will not advance the real goal of encouraging renewable generation.

- 4) Should any delay be allowed in the consumption of biomethane at the electricity generating facility once it has been delivered to California or the electricity generating facility? If so, please specify what reasons for delays should be allowed and what, if any, limits should be imposed on the delay. Explain your answer. If no delay should be allowed, please explain why.**

Delays should be allowed in the consumption of biomethane at the electricity generating facility once it has been delivered to California generating facility. There are inherent imbalances between gas deliveries and gas usage at power plants. There are

outages at the gas-consuming end of the pipeline, and outages at the producing end. The outages can and are balanced out over time. In conventional methane usage the delivering pipelines acknowledge this frequently occurring situation by specifying the tolerances for imbalances and the consequences for not repairing them. There is no need for the CEC to impose additional regulatory requirements once the biomethane has been produced and delivered into California.

**5) How should the Energy Commission treat biomethane imbalances resulting from differences between scheduling and use of the biomethane?**

Biomethane imbalances should be treated like ordinary methane imbalances. The practices and methods developed by pipelines over decades to deal with imbalances should be allowed to cure the imbalances of biomethane. To impose another structure of imbalance management based on the characterization of ordinary methane gas as biomethane would create an onerous layer of accounting practices on the already difficult job of gas nomination and scheduling.

**a. Specify why such imbalances could occur, and if they should be allowed. Please explain.**

Imbalances can occur from pipeline problems such as compressor outages, maintenance, repair work, temporary derates, or natural disasters. Power plants can experience mechanical or electrical problems or there may be electric system disturbances that require the reduction of gas usage or taking units off line completely. Electric transmission and distribution lines may experience outages on their own for various reasons that require the corresponding power plants from which the power is sent to temporarily go offline or reduce load, thereby reducing gas usage.

If a gas supplier has under-delivered, it may try to temporarily increase production to cure the imbalance by over-delivering. This is a routine occurrence in the gas industry and it must be allowed to work out such delivery discrepancies as efficiently as possible in its time tested manner.

The typical balance timeframe can be as little as a few days or as much as a year, but the supply and consumption of biomethane will balance out. The contracts under which most of this gas flows, the standard North American Energy Standards Board (NAESB) contract, incorporates audit provisions that allow the parties and regulatory overseers to verify the supply and destination of the gas or other policy objective the contracting parties have agreed upon.

**b. What limits are placed on imbalances by pipelines, and should the Energy Commission enforce stricter limits on imbalances? Please explain.**

Pipeline operators already impose imbalance limitations to protect their systems and provide reliable and quality service to their customers. Pipeline operators have been properly controlling imbalances for decades. In addition, utilities have established tariff percentage limits for customers to remain within to match their flowing supplies with their usage and there are costly penalties if operated outside those limits.

Generally the limitations are put in place to ensure that there is enough gas in their systems to meet customer demand, no more, no less. The pipeline systems can only absorb so much imbalance, some of which can be managed with packing and drafting, until corrective action must be taken by pipeline operating and control procedures. It is critical that imbalance limits are the result of the physical and

operational characteristics of the pipeline, and an arbitrary imbalance limit imposed by regulation adds an unnecessary and costly restriction.

**c. What is the magnitude of imbalances in natural gas deliveries, and how do imbalances in biomethane deliveries differ?**

Based on LADWP's experience in Southern California, customers are allowed a monthly imbalance of +/- 10%, which is the difference between deliveries and consumption. There is no daily imbalance limit in the summer but various limits in the winter time depending on the amount of gas available to the pipeline in storage. The more stringent winter balancing rules are necessary to cope with gas' peak season. This tolerance level is provided by utility tariff with the cost embedded in customers' tariff rates regardless if the gas is RPS eligible or not. Pipelines do not differentiate between regular methane and biomethane once the gas enters their pipeline systems since both gases are conditioned to meet pipeline standards for delivery.

LADWP will baseload their biomethane deliveries to continue to garner Renewable Energy Credits (RECs). LADWP would expect that most utilities would do the same. That being the case, biomethane would not be involved in imbalance considerations except in extreme low generation periods of operation, which are unusual occurrences. The delivery of biomethane is not any different than ordinary methane, so should not be treated differently. Its delivery should follow standard gas industry practices, including storage, imbalanced traded, or other pipeline operations to flow like ordinary methane to allow it to accumulate RPS credits.

**6) What records should an applicant for an electric generating facility using pipeline biomethane be required to maintain and provide to the Energy Commission in the event of an audit process. How will these records ensure that the biomethane has not been claimed for**

**the use by more than one entity and all delivery and eligibility requirements have been met?**

An applicant should be able to provide the complete invoice package for the Energy Commission's inspection. That would include the supplier's invoices and any attendant pipeline invoices with daily records of what gas was shipped from what supplier.

If the concern of the Energy Commission is to prevent the supplier from multiple sales of the same gas as biomethane, that situation can be provided for in the audit clause of bilateral agreements. If additional contractual language is needed, the CEC staff can provide such language and parties can add it to their agreements, such as the Special Conditions section of the NAESB contract. Then all that would be needed would be an affidavit or attestation that the gas sold is sold only once to the California end user.

**7) Other Concerns**

**a. Facilities with multiple units**

To prevent wasting a scarce and valuable resource, the fifth edition of the RPS guidebook should allow the operator of a generating facility with multiple generating units to specify the units at which the biomethane is combusted. For example, the operator may specify that the biomethane was combusted at the unit with the lowest heat rate of the units that were operating during the biomethane delivery period.

**b. Continue processing certification applications**

The CEC must continue to process applications for certification of RPS-eligible generating facilities under its existing RPS guidelines in as expeditious a manner as

possible. This is extremely important now that utilities are operating under the first compliance period of SB 2 (1X).

Applications must be assessed in accordance with the RPS guidelines applying on the date on which the application was submitted to the CEC, regardless of whether a subsequent edition of the RPS guidebook has been issued by the time the CEC assesses the application. However, contracts approved by POUs prior to June 1, 2010, as part of the POUs RPS requirements should count *in full* towards RPS requirements, as long as it is adopted by its governing board as a procurement contract to meet RPS. LADWP believes this is consistent with the CEC's authority and with principles of fair administrative practice.

If applications submitted now were frozen until the fifth edition of the RPS guidebook is issued, and were then assessed in accordance with the fifth edition, would result in intolerable uncertainty for entities that, in order to be able to apply for certification, have already entered into and started performing under biomethane procurement contracts. Entities may be forced to breach, amend or terminate existing contracts.

**c. Cooperate with the California Air Resources Board to avoid CEC delays impacting cap and trade eligibility**

Delays in processing certification applications may also have the undesirable side effect of preventing biomethane from being considered zero-emissions under the California Air Resources Board's (ARB) cap and trade program. Contracts signed after January 1, 2012, are subject to greater restrictions under the cap and trade program. In the spirit of Executive Order S-21-09, as referred to in the fourth edition of the RPS

guidebook, the CEC and the ARB should cooperate in relation to the RPS and AB 32 regulations.

**d. Biomethane is eligible under Section 399.16 (b)(1)(A)**

SB2 (1X) requires POUs to establish rules to implement the “bucket” requirements in PUC §399.16(b). The combustion of biomethane at a California generating facility will produce Section 399.16 (b)(1)(A) electricity products, regardless of the location of the source of the biomethane. However, as stated above, contracts approved by POUs prior to June 1, 2010, as part of the POUs RPS requirements should count *in full* towards RPS requirements, regardless of whether the contract meets CEC eligibility guidelines, as long as it is adopted by its governing board as a procurement contract and consistent with SB 2 (1X).

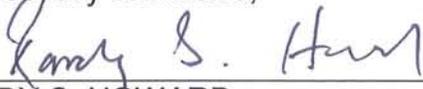
Section 399.16 (b)(1) clearly deals with “electricity products,” not fuel resources. To assume that biomethane is an “electricity product” that is subject to the Portfolio Content Categories is an inappropriate interpretation of SB2 (1X). Once biomethane is consumed at a California facility, electricity products generated within the boundaries of California would effectively be scheduled to a California Balancing Authority, therefore making it subject to Section 399.16 (b)(1)(A).

This approach is in accordance with the relevant provisions of SB2 (1X), to which the CEC should adhere.

### III. CONCLUSION

LADWP appreciates the opportunity to submit these comments and looks forward to cooperating with the Energy Commission in this proceeding.

Dated: September 30, 2011 Respectfully submitted,

By:   
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