

DOCKETED

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Project Title:	Appeal by Los Angeles Department of Water & Power re Renewables Portfolio Standard Certification Eligibility
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Document Title:	Benjamin Schlesinger and Associates, LLC Letter Regarding the Schlesinger Report
Description:	Letter Regarding LADWP's Petition for Reconsideration
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January 21, 2016

Los Angeles Department of Water and Power (the "Department")
c/o Jean-Claude Bertet, Esq.
Deputy City Attorney
Office of the Los Angeles City Attorney
Water & Power Division
111 N Hope Street, Suite 340
Los Angeles, CA 90012

Subject: LADWP Petition for Reconsideration Regarding the RPS Certification of the
Scattergood, Harbor, Valley and Haynes Generating Stations Using Biomethane
From 2009 Shell and Atmos Contracts, RPS ID 61596A, 61597A, 61598A, and 61599A

Dear Jean-Claude:

As you requested, I've reviewed the memorandum on this subject to Robert P. Oglesby, Executive Director, and Drew Bohan, Chief Deputy Director, of the California Natural Resources Agency, from Suzanne Korosec, Renewable Energy Division, and Gabe Herrera, Staff Counsel, Office of Chief Counsel, of the California Energy Commission (CEC), dated November 30, 2015 (herein, the CEC Staff Memo).

The CEC Staff Memo refers in places to the report which my firm, Benjamin Schlesinger and Associates, LLC, of Bethesda, Maryland, submitted to the Department on March 26, 2014, entitled "CEC'S RPS Compliance Guidelines for Biogas and the U.S. Gas Pipeline Network: Special Report to the Los Angeles Department of Water and Power" (the Schlesinger Report). The purpose of this letter is to point out some instances in which I believe the CEC Staff has either misunderstood or skipped over parts of the Schlesinger Report in reaching their decision in this proceeding.

First, our report described in detail how the U.S. gas pipeline grid functioned at the time the 2009 Shell and Atmos contracts were entered – i.e., on an open access basis under rules issued by, and pipeline tariffs approved by, the Federal Energy Regulatory Commission (FERC). What is an open access basis? Pipelines and shippers use the pipeline grid to route gas among buyers and sellers in the most economical way – this includes contracting with pipelines to provide any of a number of services, e.g., firm, interruptible, backhaul, storage and many others. To backhaul is to move gas against the flow in the pipeline, which involves exchanging one volume of gas for another. Since molecules cannot flow upstream any more than a canoe will float upriver, the only way to backhaul gas on a pipeline is to conduct an equal exchange of volumes.¹ Shippers also commonly conduct

¹ But shippers pay for backhaul, just like they must pay for any other pipeline service for which they have contracted. For example, see Attachment A, the backhaul rates Rockies Express Pipeline (REX) is authorized to charge in its FERC Gas Tariff.

exchanges of gas not involving the pipeline (see Figure 8 of our report), an arrangement that nonetheless involves delivery guarantees, as well as costs to shippers. Regardless of the mechanism, commitments to deliver gas using one or another means reside in enforceable agreements, such as the 2009 Atmos contract, which stated:

“The parties understand that this landfill gas will be delivered to Buyer through an exchange rather than direct long-haul transportation. Specifically, that environmental attributes will be unbundled from the gas near the landfill source, and the resulting gas without environmental attributes will be sold by the Seller in the local market. The gas will be with an equal quantity of gas and re-bundled with environmental attributes for delivery to Buyer at the specified delivery point as Standard Base Load gas.” (Atmos contract, 2nd Transaction Confirmation, Special Provision)

In its RPS Guidebook, Fourth Edition,² the CEC clearly allowed the flexibility inherent in the U.S. gas pipeline grid as a means of delivering biomethane to in-state power plants because it states: “Delivery contracts with the pipeline operators may be for delivery with or **against the physical flow of the gas in the pipeline.**” (emphasis is mine).³ In the context of the gas industry’s activities, the meaning of this Guidebook regulation was clear – backhaul that took place in the 2009 Shell and Atmos contracts resulted in gas moving against the flow of gas in the pipeline and were, therefore, a valid, effective, enforceable way to transport biomethane to the Department’s power plants.

Second, how does a “contract path” enter into this? Shippers of gas on U.S. pipelines are required to enter into transportation agreements (contracts) under the provisions of the pipeline’s FERC Gas Tariff. Contracts with gas pipelines – be they for firm service, interruptible service, backhaul services, etc. – obligate the pipeline to deliver gas physically from the point of receipt to the point of delivery. The purpose of specifying “contract paths” in pipeline contracts is to determine the appropriate rate to charge for providing transportation and delivery services, not to ensure that any particular molecule gas is delivered anywhere. Once a gas pipeline accepts biomethane deliveries, the biomethane is indistinguishable with other gas on the pipeline, i.e., fungible, as explained in Figure 6 of the Schlesinger Report.

For this reason, CEC’s disallowance of biomethane delivered to the Department under the 2009 Shell and Atmos contracts because there was no demonstrated “contract path” is both artificial and superfluous. Forcing this showing creates an additional regulatory and financial burden for the Department and its vendors, and it is inconsistent with the way the gas industry operates under federal regulation because it would exclude common practice that bears the same result in any event. If anything, from my industry experience, the purpose of the requirement in the CEC’s Fourth Edition RPS Guidebook to enter into delivery contracts “from the injection point to California” isn’t really to ensure the same gas is actually delivered – that would be impossible – or to ensure any particular rate is charged. The purpose appears to be to ensure the Environmental

² California Energy Commission (CEC), Commission Guidebook: Renewables Portfolio Standard Eligibility, Fourth Edition, January 2011 (CEC- 300- 2010- 007- CMF).

³ The American Gas Association and gas pipelines define backhaul using literally the same words, see, for example, <https://www.aga.org/knowledgecenter/natural-gas-101/natural-gas-glossary/b> and Rockies Express Pipeline LLC, FERC Gas Tariff, Third Revised Volume No. 1, Rate Schedule BHS, Backhaul Transportation Service, Sec. 2.2.

Attributes flow to California, which they do under the 2009 Shell and Atmos contracts (see excerpt above).

Third, and perhaps most importantly, to discourage biomethane shipments into California is to discourage biomethane recovery projects altogether. The tremendous demand pull on landfill biomethane that would otherwise be exerted by California's RPS program and its world-scale economy is simply missing. Evidence that the biomethane market has chilled is clear from data issued by the Environmental Protection Agency (EPA), which show that in almost two years since my firm issued the Schlesinger Report, the number of U.S. landfill sites which were not recovering biomethane decreased by only 10 sites, down from 450 candidate sites in June 2013 as shown in Figure 3 of our report, to 440 sites as of March 2015.⁴ Failure to recover biomethane from 440 landfills is contributing to continual, and unnecessary, releases of methane gas, all of which will reach the atmosphere sooner or later, 475 million cubic feet per day (see Attachment B).

Please call on me with any question or comment.

Very truly yours,

BENJAMIN SCHLESINGER AND ASSOCIATES, LLC

A handwritten signature in black ink, appearing to read 'Ben Schlesinger', with a long horizontal flourish extending to the right.

Benjamin Schlesinger, Ph.D.
President

⁴ <http://www3.epa.gov/lmop/projects-candidates/>. There are also 645 landfill sites that the EPA reports are operational, i.e., that biomethane is being recovered from them for commercial uses. See the EPA's information in Attachment B.

Attachments

- A. Rockies Express Pipeline LLC, FERC Gas Tariff, Third Revised Volume No. 1, Rate Schedule BHS (Backhaul Service), Effective on June 6, 2011. (1 page)
- B. U.S. Environmental Protection Agency, Landfill Methane Outreach Program, Energy Projects and Candidate Landfills. (2 pages)

**Rate Schedule BHS ^{1/}
(Backhaul Service)**

Receipt Zone ^{2/}	Delivery Zone ^{3/}	Maximum Reservation	Maximum Commodity	Minimum Commodity
Zone 1	Zone 1	\$4.6675	\$0.0000	\$0.0000
	Zone 2	\$15.5460	\$0.0000	\$0.0000
Zone 2	Zone 1	\$10.8785	\$0.0000	\$0.0000
	Zone 2	\$33.1450	\$0.0000	\$0.0000
Zone 3	Zone 1	\$28.4775	\$0.0000	\$0.0000
	Zone 2	\$17.5990	\$0.0000	\$0.0000
	Zone 3			

Authorized Overrun Service Charge

The Authorized Overrun Service Charge for all Shippers shall be the 100% load factor rate equivalent of the BHS maximum Reservation Rate applicable to each zone or combination of zones and applicable to all Gas delivered over the Shipper's MDQ.

Unauthorized Overrun Service Charge

The Unauthorized Overrun Service Charge for all Shippers shall be the 100% load factor rate equivalent of the BHS maximum reservation rate pertaining to each zone or combination of zones and applicable to all Gas delivered over the Shipper's MDQ plus the applicable charges specified in Section 8.2 of Rate Schedule BHS.

^{1/} Reservation Rates are \$/Dth of MDQ/Month; Commodity and Overrun Service Charge Rates are \$/Dth. Any separately stated fees and/or charges are in addition to the rates stated herein.

^{2/} Zone 1 shall encompass all points west of and including the Cheyenne Hub, located in Weld County, Colorado. Zone 2 shall encompass all points east of and including the Cheyenne Hub to and including the PEPL Interconnect, located in Audrain County, Missouri. Zone 3 shall encompass all points east of the PEPL Interconnect, located in Audrain County, Missouri, to and including delivery points in Clarington, Ohio.

^{3/} Id.



Landfill Methane Outreach Program Energy Projects and Candidate Landfills

Existing energy projects:

- [Operational projects](#)
- [LFG energy project profiles](#)

Creative use of landfill gas (LFG) includes heating greenhouses, producing electricity and heat in cogeneration applications, firing brick kilns, supplying high-Btu pipeline-quality gas, fueling garbage trucks, and providing fuel to chemical and automobile manufacturing. Projects range from small-scale community-driven initiatives to multi-million-dollar private investments.

Hundreds of LFG energy projects currently operate in the United States. Projects involve public and private organizations, small and large landfills, and various types of technology. Read about successful LFG energy projects that are enjoying the environmental and economic benefits of using LFG.

LFG energy project opportunities:

- [Project Expo sites](#)
- [Candidate landfills](#)

Project Expo sites are landfills that have been featured at LMOP conferences in the past. Many of these sites are still being actively promoted by landfill owners or operators in conjunction with LMOP, while others have already resulted in project development.

LMOP defines a candidate landfill as one that is accepting waste or has been closed for five years or less, has at least one million tons of waste, and does not have an operational, under-construction, or planned project; candidate landfills can also be designated based on actual interest in the site.

National and State lists of landfills and energy projects:

What's New: LMOP has enhanced the data files to provide stakeholders additional landfill and project details. The downloadable files also include Greenhouse Gas Reporting Program (GHGRP) identification numbers that correspond to the 7-digit Facility Identifier assigned to facilities required to report under EPA's GHGRP.

- [Landfill and project data \(all statuses\) - updated March 2015 \(XLS\)](#) (716K, [About MS Excel](#) [EXIT Disclaimer](#))
- [Landfill-level data only \(all landfills\) - updated March 2015 \(XLS\)](#) (674K, [About MS Excel](#) [EXIT Disclaimer](#))
- [Under construction projects - updated March 2015 \(XLS\)](#) (28K, [About MS Excel](#) [EXIT Disclaimer](#))

[Download a free Excel spreadsheet viewer.](#) [EXIT Disclaimer](#)

Select a state below for a list of operational and under-construction projects and candidate and other landfills, current as of March 2015. The files include data on waste-in-place, landfill gas flow rates, and other information. (All files are Microsoft Excel.)

[Text version of map data.](#)

As of March 4, 2015

645 [Operational Projects](#)
440 [Candidate Sites](#)

Questions

If you have questions related to potential projects in a specific state or region, please [proceed to our contact page](#).

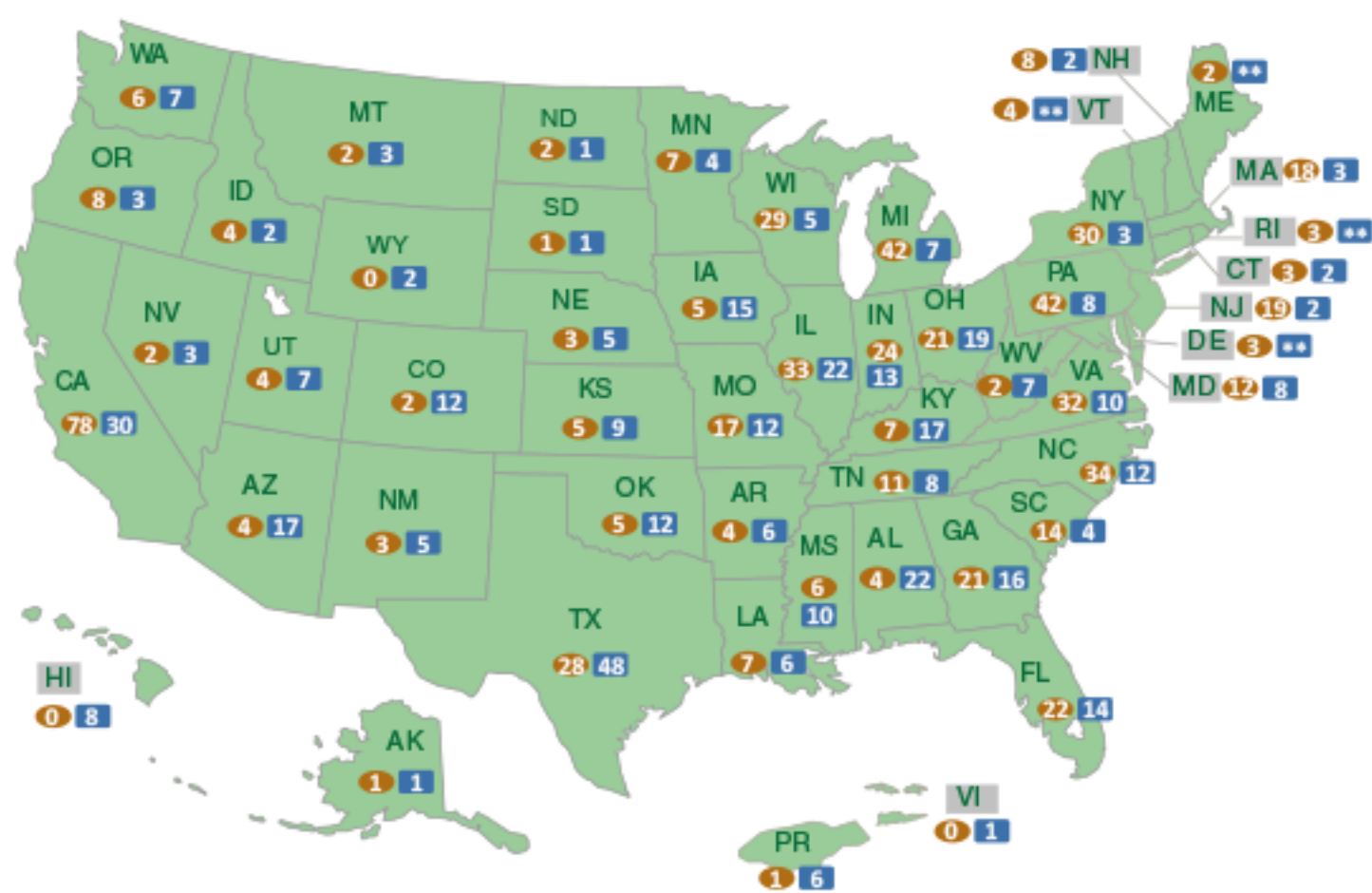
Tools

- [LFG Energy Benefits Calculator](#)
- [Interactive Conversion Tool](#)
- [LFGcost-Web-Landfill Gas Energy Cost Model](#)

Greenhouse Gas Reporting Program

EPA makes GHG data available to the public through [Facility Level Information on GreenHouse gases Tool \(FLIGHT\)](#). FLIGHT allows you to quickly and easily filter GHG data in a variety of ways, including by facility, industry, location, or gas.

[Learn more about EPA's GHGRP](#)



Nationwide Summary

645 OPERATIONAL Projects
(2,066 MW and 298 mmscfd)

~440 CANDIDATE Landfills
(855 MW or 475 mmscfd,
42 MMTCO₂e/yr Potential)



OPERATIONAL PROJECTS



CANDIDATE LANDFILLS*

*Landfill is accepting waste or has been closed 5 years or less, has at least 1 mm tons of waste, and does not have an operational, under-construction, or planned project; can also be designated based on actual interest by the site.

These data are from LMOP's database as of March 4, 2015.

** LMOP does not have any information on candidate landfills in this state.