BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Implement Dairy Biomethane Pilot Projects to Demonstrate Interconnection to the Common Carrier Pipeline System in Compliance with Senate Bill 1383	Rulemaking R1706015 Filed June 15, 2017 Rulemaking XX-XX-XXX

COMMENTS BY DVO INC. TO JOINT UTILITY DRAFT SOLICITATION FOR SB 1383 DAIRY PILOT PROJECTS

By

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SOCALGAS® SOUTHWEST GAS CORPORATION

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DVO's industry experience includes approximately 120 operating anaerobic digesters worldwide, with a majority on U.S. dairies. DVO's patented design is a mixed plug flow digester that allows for a complete mix of manures and substrates that produces optimal amounts of biogas. The viewpoints offered in this response to comments is based upon our observations, experience, and review of the draft solicitation.

In accordance with the Feb 5th filing requirements, DVO Inc. has the following comments on the draft solicitation:

Hydrogen Sulfide (H_2S) removal should be a requirement as far upstream in the biogas production process as possible

Chapter 1, Section 4.1 of the draft solicitation states:

> *"Applicant shall own and operate the biogas collection lines and any biogas treatment or conditioning equipment (Lane 2) to remove hydrogen sulfide and water from the raw biogas prior to it entering the biogas collection lines."*

While we strongly agree with the intent of this requirements, we suggest the removal of the word "any" and replace it with "required" in this section. For safety reasons, it is our recommendation to the Commission and utilities that H_2S scrubbing be done on site at each digester-equipped dairy and as close to the digesters as is reasonably possible (upstream) in order to reduce and properly manage exposure and other inherent risks.

Hydrogen sulfide (H_2S) gas is a common byproduct of dairy manure digestion. Based upon experience, expected levels of H_2S in raw dairy biogas are in the 2000 to 4000 parts per million range. These levels are inherently dangerous to equipment, health, and life. Typical H_2S scrubbers will remove the majority of H_2S to safer levels below 50ppm. H_2S scrubbers can be safely monitored, managed, and maintained by professional services. When installed upstream and close to the digester, it is our view and experience that scrubbers will maximize overall project safety.

Requiring H_2S and moisture removal prior to entering gathering lines should help to address potential safety and health issues associated. This requirement should not change and should be applied to any projects utilizing gathering lines in California.

Cost Recovery for Gathering Lines should be based on Applicant cost estimates at application submittal

Another concern we would like to express regards cost recovery provisions of the draft solicitation. Section 4.1 of the draft proposal states:

> *"The upfront costs[4] associated with the biogas collection lines and treatment equipment will be recovered from utility ratepayers and provided as a reimbursement to the Applicant. To ensure only reasonable and verified costs of Pipeline Infrastructure developed pursuant to the dairy Pilot Projects are collected from ratepayers, Applicant-owned Pipeline Infrastructure costs will be recorded in a Utility balancing account and costs above the bid amount will be subject to reasonableness review by the CPUC."*

We are concerned this approach may allow for cost overruns or unreasonably low estimates that Applicants can then try to recover from ratepayers. The draft solicitation indicates in Section 7.1:

> *"The target date for Selected Pilot Projects to be connected to the Utility pipeline and flowing renewable natural gas is two years after the Applicant has received notification by the Selection Committee of a successful Application."*

We believe that all costs for pipeline infrastructure related to the gathering lines can be identified, quantified, and proposed up front at time of application submittal. Unidentified costs or cost overruns in any given proposal for non-utility provided items should be on account of the owner/developer and not ratepayers.

Guidance on how to manage phased-in approaches to project development with the requirements of the GHG Model

Chapter 2 of the solicitation requests in Section 2.1 project data including a possible "phased in approach" and to indicate dairies where there are existing feedstock agreements and where "feedstock agreements may be obtained." Also, some dairies may wish to expand and build out additional facilities to increase herd size, resulting in additional bio-methane production potential. In addition, the draft solicitation asks Applicants to describe what the system will look like at full buildout.

While we applaud the flexibility of this approach, the GHG model described in Section 4 ("Dairy Digester GHG Emission Reduction Calculator") only allows for use of 2017 existing herd data. How can we align any proposed expansions with the GHG model?