

**BEFORE THE CALIFORNIA ENERGY COMMISSION**

In the matter of: ( Docket No. 13-IEP-1L  
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2013 Integrated Energy Report (2013 IEPR) (\_\_\_\_\_  
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**COMMENTS OF SUSTAINABLE CONSERVATION ON WORKSHOP ON  
TRANSPORTATION ENERGY SCENARIOS**

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August 9, 2013

## I. INTRODUCTION

Sustainable Conservation appreciates the opportunity to comment on the topic of Transportation Energy Scenarios as part of the Joint IEPR-Transportation Commissioner Workshop. We encourage the California Energy Commission (CEC) to recognize and explore the potential of renewable natural gas (RNG) derived from dairy manure as a vehicle fuel for trucks, buses, and farm equipment. We believe that dairy RNG could be of particular value in the San Joaquin Valley, home of the state's largest dairies, intense heavy-duty vehicle use, and some of the worst air quality in the nation.

Sustainable Conservation has had a long-term commitment to working with California's dairies to find economically viable ways to reduce the industry's significant environmental impacts. After having focused our efforts on the development of on-farm anaerobic digesters for electricity generation for many years, we have recently expanded the scope of our work to include, among other things, the opportunities that development of dairy RNG may provide.<sup>1</sup> We believe dairy RNG has the potential to generate multiple environmental and economic benefits. Along with providing a clean alternative to fossil natural gas, the digestion process used to create biogas also removes significant amounts of methane (a greenhouse gas 21 times more potent than CO<sub>2</sub>) from the atmosphere.

Sustainable Conservation listened with great interest to the presentations at the July 31 workshop from Fred Silver of CALSTART and Johannes Escudero of the Coalition for Renewable Natural Gas. We would associate ourselves with many of their recommendations for further action. We

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<sup>1</sup> I attach a link to a web page devoted to a summit we organized last May to identify and explore options for dealing with dairy waste. We were honored to have had Patrick Saxton from Commissioner McAllister's staff as an attendee at the summit. I direct your attention to the presentations, and particularly to the presentation from John Boesel, President and CEO of CALSTART, *Scaling Up Energy Production: Biogas for Vehicle Fuel*. <http://www.suscon.org/dairysummit/>

would add that dairy RNG can play a unique and valuable role in both maximizing the potential supply of RNG and providing an integrated clean fueling option for fleets of trucks, buses, and farm equipment in the San Joaquin Valley and other dairy regions of the state that provides significant environmental co-benefits.

## **II. RECOMMENDATIONS**

### **A. Recognize and Incorporate Dairy RNG In Any Larger RNG Strategies, Programs, and Incentives.**

Dairy RNG should be included in the larger discussion of the potential for RNG as part of the state's fuels portfolio. The development of dairy RNG can benefit from many of the larger proposals for the development and promotion of RNG put forth in this workshop and elsewhere. However, it also has unique qualities, regional impacts, and challenges that should be acknowledged and addressed in any statewide efforts to facilitate the use of RNG as a vehicle fuel. For example, dairy RNG could have a significant impact on the amount of RNG available for use or blending with fossil RNG in the San Joaquin Valley, which should be factored into calculations of viability and practicality for that region. Also, the generation and distribution of dairy RNG requires different processes and infrastructure than RNG generated from landfills, which should be taken into account in considerations of planning, research and development, or investment.

### **B. Stabilize Incentive Programs and Facilitate Stacking of Credits.**

RNG, and dairy RNG in particular, become economically viable and attractive when one factors in the incentives provided by RFS, LCFS, and carbon credits. However, these incentive programs are subject to political pressures and uncertainties. We recommend that the CEC explore ways to stabilize these incentives, supplement them with other programs to encourage

the development and implementation of dairy RNG and other forms of RNG, and clarify and facilitate the ability of while avoiding the risk of double-counting.

### **C. Invest in Research & Development and Pilot Demonstrations**

Insofar as there has been any investment in developing renewable energy from dairies in California, it has been concentrated on the generation of electricity from digester biogas. While other states have made progress in the use of dairy biomethane as a vehicle fuel, it is still largely virgin territory in this state. In order to assess and maximize dairy RNG's potential as a vehicle fuel, much more research, development, and piloting is needed. We recommend that the CEC consider the use of EPIC and PIER funds for this important work.

### **D. Recognize and Promote Regional Approaches.**

As mentioned earlier, the San Joaquin Valley presents a unique combination of resources and challenges for the development and use of dairy RNG as a vehicle fuel. Valley dairies themselves employ large fleets of trucks. Dairies that grow silage for animal feed also operate a significant number of tractors and other farm vehicles. Large concentrations of dairies in subregions of the Valley exist in proximity with significant urban centers with municipal fleets of buses and other vehicles. The juxtaposition of numerous dairies with large amounts of feedstock for RNG, an extremely high volume of heavy-duty vehicle use, centers of population, and critically poor air quality make the San Joaquin a uniquely suitable region for the development of dairy RNG as a vehicle fuel. We recommend that the CEC acknowledge and encourage this region-specific approach to the development of clean fuels.

Sustainable Conservation strongly supports CalHEAT's recommendation to develop a center for Class 8 truck research in the San Joaquin Valley. We would hope to be able to work with this center to incorporate dairy RNG into a larger effort to use CNG to reduce NO<sub>x</sub> and CO<sub>2</sub>

emissions from heavy-duty trucks. Dairy RNG would add the reduction of methane emissions to that list of environmental benefits.

### **III. CONCLUSION**

Sustainable Conservation applauds the CEC for its commitment to the development of alternative transportation fuels. We believe that it is vital that that commitment extend to all potential sources of those fuels, particularly to those that also offer the potential for significant environmental co-benefits. Dairy RNG is a new entrant into the field of alternative fuel sources, but it is one with potentially significant regional impacts and environmental co-benefits. The nature and extent of that potential is still unclear. We request that the CEC acknowledge and incorporate dairy RNG into the larger discussion of RNG as a vehicle fuel, and provide support for exploration and development of its potential.

Respectfully submitted,



J. Stacey Sullivan

August 9, 2013