

BEFORE THE CALIFORNIA ENERGY COMMISSION



**COMMENTS OF
SUSTAINABLE CONSERVATION
ON ELECTRIC PROGRAM INVESTMENT CHARGE PRIORITIES
(DOCKET NO. 12-EPIC-01)**

JODY S. LONDON
Jody London Consulting
P.O. Box 3629
Oakland, California 94609
Telephone: (510) 459-0667
E-mail: jody_london_consulting@earthlink.net

For SUSTAINABLE CONSERVATION

August 17, 2012

Sustainable Conservation is pleased to submit these comments on the Electric Program Investment Charge (“EPIC”). Sustainable Conservation has participated before the California Energy Commission (“CEC”) for many years on issues related to bioenergy, with a focus on how to better engage the agriculture and food processing industries in energy production. As the California Public Utilities Commission (“CPUC”) discussed how to implement EPIC, Sustainable Conservation advocated for funds to be directed to biogas technology with agricultural and food processing applications. As the CEC develops an EPIC Investment Plan, it should ensure that investments are directed toward research that will facilitate greater deployment of biogas digesters.

The CEC knows, from its long work to implement the Bioenergy Action Plan, the many benefits of electricity generated from biogas digesters, particularly those using dairy waste as feedstock. The State’s largest dairies are concentrated in the San Joaquin Valley, which also has some of the most stringent air quality standards in the nation. In order to realize the undisputed potential benefits of renewable baseload electricity from dairy biogas, affordable air pollution control devices (“APCDs”) must be available that allow electricity to be generated while effectively and reliably meeting all applicable air quality standards.

Through their participation in the Interagency Dairy Digester Task Force work groups, the CEC and other State agencies are aware of the challenges these standards pose to current technology. While several APCDs that have been installed on digesters in California have shown the potential to meet the requirements, it has not been demonstrated that any of them can do so consistently and reliably over extended periods of operation. Costs remain extremely high as well. Also, other promising APCD technologies exist that have not yet been installed or tested on California dairy digesters. In order to find the best APCD technologies and ensure their

effectiveness and reliability in meeting air quality standards, the CEC's epic investment plan should direct funds from both the Applied Research and Development and the Technology Demonstration and Deployment tracks to the development, demonstration, deployment, and commercialization of air pollution control technologies for dairy digesters.

APCDs are critical components in dairy biogas electricity generation systems, but they do not stand alone. The effective operation of an APCD depends a great deal on the efficiency of the internal combustion engine being used to generate electricity, which in turn depends on the quality and quantity of the biogas being generated by the digester itself. Not only has California seen very few dairy digester systems installed in the first place, those systems that have been operated have had their components come together in more-or-less haphazard ways in response to changing regulatory standards, technological developments, and simple trial-and-error.

In order to fully realize the potential of dairy biogas, as a source of renewable energy, and to make investment sufficiently safe and attractive, EPIC investment in research, development, demonstration, and deployment of efficient and reliable APCDs needs to be coupled with an equivalent investment in a methodical determination of how the three main pieces of digester technology – the digester itself, the internal combustion engine, and the air pollution control device – can work together to provide the highest practical level of efficiency and reliability.