



# CALIFORNIA ASSOCIATION of SANITATION AGENCIES

1225 8<sup>th</sup> Street, Suite 595 • Sacramento, CA 95814 • TEL: (916) 446-0388 • [www.casaweb.org](http://www.casaweb.org)

## VIA ELECTRONIC MAIL

April 11, 2014  
The Honorable Mary Nichols, Chair  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

The Honorable Richard Corey  
Executive Officer  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

### Re: Re-Adoption of Low Carbon Fuel Standard

Dear Chair Nichols and Mr. Corey:

I am writing on behalf of the California Association of Sanitation Agencies (CASA) to offer its strong support for re-adoption of the Low Carbon Fuel Standard (LCFS) by the California Air Resources Board (CARB), with two additions that will help to achieve the goals of the standard and other state policies. CASA greatly appreciates the efforts extended by CARB in developing draft low carbon fuel standards for the conversion of biomethane produced at wastewater treatment plants. We now urge CARB to finalize those protocols, but also include in them the added benefit derived from the land application of the treated digestate (biosolids). We also urge CARB to provide long term certainty for the value of low carbon fuel credits through a price floor and support for a Green Credit Reserve (AB 2390, Muratsuchi), which will enable public agencies, and private partners where appropriate, to finance projects to produce low carbon fuels.

CASA is a statewide organization representing cities, counties, and special districts that provide essential public services through wastewater collection, treatment, biosolids management and recycling, renewable energy production, and water recycling services to millions of Californians. CASA's membership includes small, medium and large agencies representing more than 90% of California's sewer population. CASA members are actively engaged as partners with the state to fulfill a number of mandates and initiatives to be accomplished by 2020 which are intended to deliver renewable energy and mitigate climate change impacts. These include: (1) providing 33% of the State's energy needs from renewable sources; (2) reducing carbon dioxide equivalent emissions to 1990 levels; (3) reducing the carbon intensity of transportation fuel used in the state by 10%; and (4) recycling 75% of the solid waste generated in the State.

Anaerobic digestion (AD) is a typical part of the wastewater treatment process employed at many Publicly Owned Treatment Works (POTWs) across the state. Roughly 95% of wastewater flow in California is treated at POTWs that have AD as the solids treatment process. The AD process produces biomethane, which is converted into power at the majority of these POTWs, and provides between 40 and 70 percent of the POTWs energy needs. Many POTWs are now also hauling in additional organic waste such as fats, oils, and grease (FOG) and food waste for introduction into digesters; a process that helps produce more methane (and hence, additional power production) and divert the organic waste from landfills.

#### Executive Board

President  
**STEPHEN A. HOGG**  
City of Fresno

1st Vice President  
**DAVID R. WILLIAMS**  
Central Contra Costa Sanitary District

2nd Vice President  
**KEVIN M. HARDY**  
Encina Wastewater Authority

Secretary-Treasurer  
**TOM SELFRIDGE**  
Truckee Sanitary District

- Directors-at-Large  
**TIMOTHY P. BECKER**  
Oro Loma Sanitary District

**PAUL BUSHEE**  
Leucadia Wastewater District

**VIVIAN W. HOUSEN**  
V.W. Housen & Associates

**WILLIAM C. LONG**  
Novato Sanitary District

**JEFF M. MOORHOUSE**  
Carpinteria Sanitary District

**MARGIE L. RICE**  
Midway City Sanitary District

**E.J. SHALABY**  
West County Wastewater District

- Past Presidents  
**JOHN E. HOAGLAND**  
Rancho California Water District

**GARY W. DARLING**  
Delta Diablo Sanitation District

Executive Director  
**ROBERTA L. LARSON**

The methane produced (or a portion of it) could, if cost effective, be converted to low carbon intensity transportation fuel. This may especially be attractive in air districts certified as being in severe non-attainment for ground level ozone standards under the Clean Air Act. The continued use of internal combustion engines to generate power at wastewater facilities may be in jeopardy in the coming years, particularly in the South Coast Air Quality Management District (SCAQMD). This could make the transformation to LCFS compliant transportation fuel an attractive alternative. Using very conservative assumptions from the United States Environmental Protection Agency (US EPA) Combined Heat and Power Partnership program, CASA estimates that POTWs in California are currently producing more than 611,000 megawatt-hours per year (MWh/year) of electricity or more than 2,350,000 million British thermal units per year (MMBtu/year) of thermal energy. If converted to low carbon transportation fuel, 611,000 MWh/year would produce 18 million gasoline gallon equivalents (gge) or 16.2 million diesel gallon equivalents (dge). Similarly 2,350,000 MMBtu/year thermal energy would produce 20.2 million gge or 18.3 million dge. This does not take into account any additional methane produced from co-digesting solids with FOG or food waste. If all POTWs currently producing methane were to utilize all of that methane, then using those same conservative assumptions we could produce an additional 300,000 MWh/year of electricity or an additional 1,150,000 MMBtu/year of thermal energy.

The draft LCFS protocols under consideration by CARB predict a carbon intensity (CI) of negative 65.3 g carbon dioxide equivalent per megajoule ( $\text{CO}_2\text{e}/\text{MJ}$ ) for POTWs treating more than 100 million gallons per day of wastewater and a CI of 11.5 g  $\text{CO}_2\text{e}/\text{MJ}$  for POTWs treating between 5 and 20 million gallons per day of wastewater. The CI could be further lowered if the land application or composting of biosolids were included in the protocol system boundary, as most biosolids in the state are managed in this way. Biosolids used in agricultural or horticultural settings mitigate climate change by avoiding the use of fossil fuel intense inorganic fertilizer and by improving long-term sequestration of carbon in soil. Roughly 0.22 gallons of fossil fuel is required to produce every pound of inorganic nitrogen fertilizer, illustrating the tremendous offset gained by using biosolids for land application, because they are rich in organic nitrogen and other valuable micro and macro nutrients.

CASA is also a founding member of the Bioenergy Association of California (BAC), and supports BAC's efforts urging CARB to include measures that provide long-term certainty with respect to the value of LCFS credits, thereby facilitating project financing. Since the obligated parties only enter into short-term contracts to buy LCFS credits, public agencies and private investors necessarily discount or ignore the value of those credits when assessing their return on investment. This discourages or impedes infrastructure investments needed to convert biomethane to low carbon fuels. To provide greater certainty and sustainability for the long-term value of LCFS credits, CASA supports the inclusion of a price floor in the cost-containment mechanism. CASA also urges CARB to support the establishment of a Green Credit Reserve (AB 2390, Muratsuchi) to provide not just price certainty but a guaranteed market for LCFS credits at the time a project is being developed. This type of credit value stability mechanism is crucial to promoting the LCFS, particularly at wastewater facilities.

The Green Credit Reserve would authorize the state to enter into long-term contracts to purchase LCFS credits. The contracts would be executed before a project is developed, giving public and private investors the long-term certainty needed to make major infrastructure investments, but the state would not actually buy the credits until the developer begins producing fuels and generating the credits, removing the risk of project failures or delays. The state could then resell the credits or retain them, depending on market conditions. The mechanisms of this Reserve are further articulated in comments submitted by BAC, which CASA fully supports.

Honorable Mary Nichols  
Honorable Richard Corey  
April 11, 2014  
Page 3

In summary, CASA strongly supports re-adoption of the Low Carbon Fuel Standard and urges CARB to adopt and modify draft protocols for wastewater treatment plant methane as stated above and to support the establishment of a Green Credit Reserve.

Thank you for your consideration of these comments. Please do not hesitate to contact me with any questions or further clarification of any of our comments. We look forward to working together on the successful continuation of the LCFS program.

Sincerely,



Greg Kester  
Director of Renewable Resource Programs  
[gkester@casaweb.org](mailto:gkester@casaweb.org)  
916-844-5262

cc: Cliff Rechtschaffen, Office of the Governor  
Assemblyman Al Muratsuchi  
Katrina Sideco, CARB