

**DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY**

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California Energy Commission

**DOCKETED**  
**12-ALT-02**

TN # 68816

DEC. 10 2012

December 10, 2012

Commissioner Carla Peterman  
California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 12-ALT-02  
1516 Ninth Street  
Sacramento, CA 95814-5512

Via Email: [docket@energy.ca.gov](mailto:docket@energy.ca.gov)

Subject: 2013/2014 AB 118 Investment Plan Update, Docket No. 12-ALT-02

Dear Commissioner Peterman:

Thank you for the opportunity to continue CalRecycle's participation in the AB 118 Advisory Committee. This collaboration will help further California's interest in advancing in-state production of low carbon intensity biofuels and aid the transportation sector in transitioning from dependence on petroleum-based fuels to reliance on a diverse source of alternative fuels.

The draft Investment Plan supports CalRecycle's efforts to achieve AB 341's new State policy goal that 75% of solid waste generated be source reduced, recycled, or composted by the year 2020. AB 341 further strengthens the rationale for pre-landfill biomethane production, as it will result in increased availability of organic waste feedstocks for the production of pre-landfill biomethane, while simultaneously reducing the amount of organic waste buried in landfills. One of CalRecycle's key priorities thus is the development of biogas from facilities that divert organics from landfills, in accordance with the requirements of AB 341.

The draft Investment Plan addresses a number of significant changes that are required for the state's fuel supply and vehicle fleet to meet the greenhouse gas emission reduction goals established by Assembly Bill 32 and Executive Order S-3-05. Because of CalRecycle's direct interest in the use of waste-based organic materials as feedstocks for fuel production, we greatly appreciate the CEC's efforts in past plans to fund fuel production both from landfill gas and pre-landfill biomethane facilities (e.g., anaerobic digestion). AB118 funds have been awarded to a number of Biofuel Production facilities with carbon intensities ranging from 25 gCO<sub>2</sub>e/MJ for ethanol to 12 gCO<sub>2</sub>e/MJ for biomethane. (We recommend revising footnote 28 on page 24 of the draft Plan to reflect that, in addition to pre-landfill projects, other projects



using landfill gas, dairy manure, and rendering waste have received funds for biomethane production.)

Recent work by the Air Resources Board on Low Carbon Fuel Standards (LCFS) further illustrates the potential of biomethane as a low carbon fuel and the need for continued investment in biomethane production using pre-landfill, waste-based organic feedstocks. In particular, the Air Resources Board, in collaboration with CalRecycle, published a High Solids Anaerobic Digestion LCFS pathway for pre-landfill waste-based organics with a carbon intensity of -15 gCO<sub>2</sub>e/MJ. This pathway is the lowest carbon intensity of any fuel pathway.

Biomethane production facilities that use pre-landfill organics to produce low-carbon fuels can benefit from co-locating with existing infrastructure at landfills, transfer stations, waste water treatment plants, and material recovery and compost facilities. However, at the current scale and stage of technology deployment, the cost of biomethane production in California is high in relation to the historically low prices for fossil CNG. Therefore, adequate funding through AB 118, LCFS credits, and production of marketable co-products such as compost or fertilizer are critical to the economic viability of in-state biomethane facilities that use California's abundant pre-landfill feedstocks to produce negative carbon intensity fuels.

Pre-landfill organics are a vast resource. According to studies by the California Biomass Collaborative (CBC), solid waste feedstock has the potential to produce 300,000,000 gallons of gasoline equivalents per year. The CBC continues to be an integral partner in providing technical assistance, quality reports, essential data, and expertise that supports the growth of renewable fuel production in California. CalRecycle supports CEC's call for an expansion of the CBC work to further understand and quantify California biomass feedstocks available for fuel production.

CalRecycle would also like to applaud the exemplary efforts by CEC to identify and mitigate environmental impacts created by the transition from fossil fuels and internal combustion engines to alternative fuels and vehicles. Widespread deployment of plug-in electric vehicles (PEV) could have environmental impacts associated with the end of life management of PEV battery packs. We support CEC's efforts to move forward with sustainability studies that could lead to large-scale recycling and avoid potential environmental impacts associated with the end of life management of PEV battery packs.

Finally I would like to reiterate our commitment to assisting your staff in implementing the Plan and collaborating to ensure that previously funded projects are successful. If you have any questions, please do not hesitate to contact me directly at (916) 341-6311.

Sincerely,

A handwritten signature in black ink that reads "Brenda Smyth for Howard Levenson". The signature is written in a cursive style.

Howard Levenson, Ph.D.

Member, AB118 Investment Plan Advisory Committee

Deputy Director, Materials Management and Local Assistance Division