



August 7, 2015

The Honorable Mary Nichols, Chair  
The Honorable Richard Corey, Executive Officer  
California Air Resources Board  
1101 "I" Street  
Sacramento, CA 95804

**Re: Comments on 50 Percent Petroleum Reduction Strategy**

Dear Chair Nichols and Executive Officer Corey:

The Bioenergy Association of California strongly supports the Administration's goal of 50 percent petroleum reduction and welcomes the opportunity to submit comments on how to achieve that goal. To maximize the benefits and achieve the 50 percent petroleum reduction in the most cost-effective manner, California must invest in a variety of fuels and technologies across all vehicle types and transportation sectors. This includes investments and regulatory changes to promote biofuels made from organic waste and the vehicles that run on those fuels. Promoting the development and use of biogas to reduce petroleum consumption will immediately begin to reduce the most significant sources of Short-Lived Climate Pollutants and toxic air contaminants, providing immediate public health and climate change benefits to the state. Biogas also provides many times more jobs than fossil fuels and those jobs can be located in every community in the state.

The Bioenergy Association of California (BAC) is an association of about 60 public agencies, private companies, local governments, environmental groups and others working to convert organic waste to energy. BAC members own, operate and are developing some of the lowest carbon transportation fuel projects in the country, including the only transportation fuels that are carbon negative under the Low Carbon Fuel Standard. BAC members also operate and are developing bioenergy projects to generate renewable, flexible generation power that can be used to power electric vehicles and are producing the biogas that can be used to provide renewable hydrogen for fuel cell vehicles. In all of these areas – biogas as a transportation fuel or as the source of

renewable hydrogen and electricity – California has barely begun to tap the potential of instate resources to produce these lowest carbon transportation fuels that can immediately reduce petroleum consumption and provide numerous other benefits. In particular, increasing biogas production and use in California will:

- Provide the lowest carbon transportation of any kind
- Help California to meet its Short-Lived Climate Pollutant and other air pollution goals
- Help achieve California’s organic waste diversion goals
- Reduce air pollution impacts on disadvantaged communities that suffer disproportionately from the impacts of heavy duty diesel vehicles
- Reduce the risks and impacts of catastrophic wildfire, and
- Produce 2 to 6 times as many jobs as fossil fuel gas<sup>1</sup>

Using organic waste, California can generate more than 2 billion gasoline gallon equivalents of biogas, enough to replace nearly two-thirds of all the diesel used by motor vehicles in California.<sup>2</sup> The petroleum reduction, public health and economic benefits would be enormous.

Increasing biogas use as a transportation fuel is essential to achieving a 50 percent petroleum reduction goal and other important policies, but numerous regulatory and financial barriers must be addressed to achieve biogas’ potential. The most important changes are described below.

### **1. Low Carbon Transportation Incentives Must be Performance Based and Directed to All Vehicles Types.**

The Air Board’s fact sheet on 50 percent petroleum reduction makes it very clear that biofuels are an important part of the petroleum reduction strategy. Yet none of the current year’s Low Carbon Transportation funding went to biofuels production and deployment. This is particularly surprising since biogas made from organic waste is the single lowest carbon fuel available.

Going forward, it is critical that Low Carbon Transportation funding be used to incentivize the range of fuels needed to meet the Low Carbon Fuel Standard and the 50 percent petroleum reduction goal. Funding only electric and fuel cell vehicles – not including the renewable hydrogen to power the fuel cells – will not get California to its petroleum reduction goals, nor help the state to reduce Short-Lived Climate Pollutants, divert organic waste or achieve other important strategies to address climate change.

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<sup>1</sup> UC Berkeley,

<sup>2</sup> “Decarbonizing the Gas Sector: Why California Needs a Renewable Gas Standard,” November 2014. Available at: <http://www.bioenergyca.org/news/bac/bac-releases-groundbreaking-report-on-renewable-gas/>.

BAC recommends that Low Carbon Transportation Funding:

- Be based on performance criteria for each vehicle sector and class, rather than picking technology winners that are only available for some vehicle classes and uses
- Incentivize a mix of technologies and fuels that can provide immediate reductions in greenhouse gas emissions, especially fuels that can reduce Short-Lived Climate Pollutants, which is the only way to immediately slow global warming<sup>3</sup> while providing immediate and significant public health benefits
- Rank greenhouse gas reductions as the most important performance criteria since AB 32 requires that Cap & Trade funding achieve “the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions”<sup>4</sup>
- Make performance criteria and rankings transparent to ensure that funding achieves the maximum greenhouse gas reductions while achieving other co-benefits
- Distinguish between “zero emission” for criteria pollutants and “zero emission” for greenhouse gases and Short-Lived Climate pollutants, when using Cap & Trade Funding, which must maximize greenhouse gas reductions

## **2. Incentivize Fuels that Help Meet the 5 Pillars of California’s Climate Change Strategy.**

In order to maximize the greenhouse gas reductions and other benefits of a 50 percent petroleum reduction goal, funding and other incentives should prioritize those fuels and strategies that not just reduce petroleum consumption, but help achieve complementary climate policies such as organic waste diversion, wildfire reduction, carbon sequestration and reduction in Short-Lived Climate Pollutants. We urge the Air Board and other agencies to prioritize those fuels and technologies that can help achieve multiple climate strategies to ensure maximum greenhouse gas reductions and other benefits.

As noted above, converting organic waste to fuels, renewable electricity for electric vehicle charging and renewable hydrogen for fuel cells can help not only to reduce petroleum consumption, but help to achieve multiple climate pillars:

- 50 percent renewable electricity
- Organic waste diversion
- Carbon sequestration and restoration in California lands

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<sup>3</sup> ARB Concept Paper on Strategies to Reduce Short-Lived Climate Pollutants at page 1. Available at: [http://www.arb.ca.gov/cc/shortlived/concept\\_paper.pdf](http://www.arb.ca.gov/cc/shortlived/concept_paper.pdf).

<sup>4</sup> AB 32 (Pavley, 2006), Health and Safety Code section 38562(c).

- Short-Lived Climate Pollutants

### **3. Enable Pipeline Injection of Biomethane.**

While some biogas projects can co-locate with or near fleets, most will need to inject the biomethane into California's pipeline network for use as a transportation fuel or renewable hydrogen source. Although the CPUC recently adopted a small incentive program for pipeline interconnection, those incentives will not be sufficient to significantly expand the use of biogas as a transportation fuel. To contribute significantly to the 50 percent petroleum reduction goal, the CPUC must revisit some of the pipeline injection standards to conform more to standards in other states and Europe and to make California biogas more competitive. In addition to revising some of the pipeline injection standards, the CPUC should allocate some of the gas sector Cap & Trade revenues to meeting the costs of pipeline biogas cleanup, which the current incentive program does not fund (it only covers pipeline interconnection, not biogas cleanup). Since biogas provides the only low-carbon gas available, this is an obvious, proven and cost-effective way to reduce greenhouse gas emissions from the gas sector. Finally, the CPUC must re-visit the pipeline interconnection process and timeline generally. The data, cost estimates, development timeline and final costs are all within the utilities' control with little or no ability for biogas producers to challenge or affect the timeline and costs.

### **4. Provide Greater Long-Term Certainty Under the LCFS.**

The vast majority of bioenergy projects in California are producing electricity because they can obtain long-term contracts (Power Purchase Agreements) in the electricity sector that enable the projects to obtain financing. To significantly increase the use of organic waste for transportation fuels, California must adopt a mechanism to provide longer-term certainty to biofuel developers. In addition to the legal challenges to the Low Carbon Fuel Standard, the obligated entities will only enter into one and two year contracts to purchase the fuels, which is not enough to finance projects.

BAC recommends that California use Cap & Trade or other funds to provide long-term guarantees or certainty under the LCFS program. This could be done by requiring long-term fuel purchase agreements, establishing a Green Credit Reserve where the state or other entity act as a credit trading intermediary to provide long-term contracts for the fuels, a loan guarantee program, green infrastructure bank or other strategies. In order for biofuels to provide the level of petroleum reduction that is needed, this long-term certainty is critical.

### **5. Accelerate Certification of Low-NO<sub>x</sub> Vehicle Engines and Incentivize their Deployment.**

Vehicle engine technologies are developing quickly and moving toward power-

plant level NO<sub>x</sub> emissions, equivalent to the criteria pollutant emissions of electric vehicles and providing even greater greenhouse gas and SLCP reductions. Given the urgency and opportunity to reduce SLCP's, we urge the Air Board to accelerate the certification and deployment of these ultra-low NO<sub>x</sub> vehicle engines.

Biofuels are critical to achieve a 50 percent petroleum reduction and to immediately reduce emissions from the heaviest duty vehicles. The changes described above are critical to significantly increase the development and use of biogas as a transportation fuel and source of renewable hydrogen. We look forward to working with the Air Board and other agencies to remove these barriers to instate biogas development in order to maximize petroleum reduction, greenhouse gas reductions and other benefits that transportation fuels from organic waste can provide.

Sincerely,



Julia A. Levin  
Executive Director

cc: The Honorable Cliff Rechtschaffen, Senior Advisor to Governor Brown  
The Honorable Michael Picker, President, CPUC  
The Honorable Carla Peterman, Commissioner, CPUC  
The Honorable Ashley Conrad-Saydah, Deputy Secretary, CalEPA