



October 5, 2017

Mr. Sam Wade, Branch Chief
California Air Resources Board
1001 I Street
Sacramento, CA 95814

SUBJECT: COMMENTS REGARDING THE PROPOSED CHANGES TO LCFS REGULATIONS

Dear Mr. Wade:

TSS Consultants (TSS), a Sacramento-based bioenergy consulting business since 1986, wishes to submit the following comments regarding your proposed changes to the California Low Carbon Fuel Standards regulations. TSS assists both private and public sector entities, utilities, Native American tribes, universities and colleges, and others working to convert organic and food waste to energy. TSS has several concerns about the proposed changes to the LCFS program and believes that, if adopted, the changes would seriously undermine the state's efforts to reduce Short-Lived Climate Pollutants and toxic air pollution from heavy duty vehicles, as well as the LCFS program itself. The concerns regarding the proposed changes are as follows:

Biogas is Essential to LCFS, SLCP and Air Quality Programs

Biofuels are essential to the success of the LCFS program. Currently, they provide 89 percent of the total LCFS credits. Biogas is the lowest carbon intensity of all biofuels and of all LCFS certified fuels. In addition to providing a growing share of LCFS compliance, the Air Board's *Short-Lived Climate Pollutant Reduction Strategy* makes clear that reducing methane emissions from diverted organic waste and dairy waste will require putting that organic waste to beneficial use, including as a transportation fuel.¹ As the SLCP Strategy states on page 28 of the Strategy document:

“Utilizing clean technologies to put organic waste streams to a beneficial use can also serve to improve regional air and water quality and support economic growth in agricultural and other communities throughout the State.”

California has adopted many policies over the past decade to promote biogas use for transportation, including:

- SB 1505 (Lowenthal, 2006) requires one-third of all hydrogen at publicly funded hydrogen fueling stations to be renewable.

¹ Page 3, *Short-Lived Climate Pollutant Reduction Strategy*, adopted March 2017

- AB 1900 (Gatto, 2012) calls on the CPUC to adopt policies to promote the in-state production and distribution of biomethane for transportation fuel and energy production.
- SB 840 (2016, Section 10) states that biomethane provides a clean and sustainable fuel that can protect air and water quality, create jobs, and reduce greenhouse gas emissions by tens of millions of metric tons per year.
- SB 1383 (Lara, 2016) requires state agencies to adopt policies and incentives to significantly increase renewable gas, including biogas and biomethane, production and use to further the state's short-lived climate pollutant goals.
- The Sustainable Freight Action Plan (2016) calls for maximizing near-zero emission vehicles powered by renewable fuels wherever zero-emission vehicles are not available.

Biogas is essential to reduce SLCP emissions, to provide renewable fuel for near-zero emission trucks, and to provide immediate reductions in toxic air contaminants from diesel powered trucks where there is no electric option. Despite the many policies calling for increased biogas production and use, the proposed changes to the LCFS program would do the opposite.

The LCFS Proposal Increases the Carbon Intensity for Biomethane without Data or Explanation

The staff presentation proposes to significantly increase the default values for biomethane (both BioCNG and BioLNG), without providing the supporting documentation, data or explanation to justify these increases. The proposed default values are several times higher than the current values for biomethane from diverted organic waste and dairy waste. If the default values are applied to biomethane from these sources, they will severely hamper the development of the biogas market that is called for in SB 1383 and the *Short-Lived Climate Pollutant Reduction Strategy*.

Several of the Proposed Changes are Not Fuel Neutral and Disproportionately Hurt Biogas Production and Use

One of the biggest strengths of the LCFS program is that it is fuel neutral and based on lifecycle analyses of each fuel's carbon intensity. This puts science before dogma and protects both the program itself and consumers by promoting fuels based on their carbon intensity, an objective standard that promotes the lowest carbon fuels in a competitive market. Unfortunately, several of the proposed changes to the LCFS would move away from fuel neutrality and set punitive requirements for biogas producers that would not be applied to electricity or other fuel providers.

The most alarming proposal is the proposed creation of a Buffer Account that allows ARB to keep LCFS credits even after a biogas producer has verified that the fuel has a lower carbon intensity than the default pathway. This is particularly alarming since the LCFS proposal also proposes to increase the default values for biogas, in some cases by orders of magnitude. It may make sense for ARB to hold LCFS credits while a particular fuel pathway is verified, but there is no rationale for ARB to keep the credits if the pathway is ultimately verified as being lower than the default value. This is highly problematic for several reasons:

- The LCFS credits have value and allowing ARB to keep them even if the biogas producer verifies a lower carbon intensity would constitute a taking of real property in violation of the Takings Clause of the U.S. Constitution.
- Biogas producers would have little incentive to continue to reduce the carbon intensity of the fuels they produce if they lose the benefit of reducing the carbon intensity for the first two years of the fuel's production.
- This "taking" is only applied to biofuels that must verify their carbon intensity. Since it is not applied to electric vehicles – whose carbon intensity can also vary significantly depending on the electricity source – it creates a huge barrier to one group of fuels rather than treating all fuels equally.

The Process and Timeline to Adopt these Changes is inadequate

The changes proposed to the LCFS are very serious and will have significant effects on the program itself and the state's ability to meet the requirements of SB 1383. Requiring public comments on the proposed changes before the public has been given the opportunity to review the full proposal and supporting documentation means that the public – and key stakeholders – will not have adequate opportunity for public comment.

Please also extend the public comment to at least two weeks and preferably 30 days after ARB releases the full text of the proposed changes and all supporting documentation. To limit public comment to the staff presentation, rather than the complete proposal, is to deny full public participation and to invite unintended consequences later.

For all these reasons, TSS urges ARB to revise the proposed changes to the LCFS and to release the full, revised proposal with all supporting documentation for a second round of public comment.

Respectfully yours,



**Frederick Tornatore
Chief Technical Officer
TSS CONSULTANTS**