



US Renewable Energy Development Capital, Inc.

September 25, 2023

The Honourable Liane Randolph
Chair, California Air Resources Board
1001 I St.
Sacramento, California 95814

Subject: Support for the Low Carbon Fuel Standard

Dear Chair Randolph and Members of the California Air Resources Board:

US Renewable Energy Development Capital, Inc. (“US RED”) invests equity capital in bioenergy and renewable power projects in the United States. Our Firm is a member of American Biogas Council which, as you know, is comprised of several hundred businesses focused on the production and distribution of biofuels. In my opinion, by establishing the LCFS, the California Air Resources Board has helped to enable a dramatic and meaningful transition to bioenergy and renewable power in the State of California. As a financial stimulus to the development of projects converting cellulosic feedstock, through anaerobic digestion, into renewable natural gas the LCFS has been “game changing” in its positive impacts on the biogas industry.

In 2009, the California Air Resources Board approved the Low Carbon Fuel Standard (“LCFS”) regulation and began implementation in January 2011. According to the CARB website the following describes LCFS:

The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. The LCFS standards are expressed in terms of the "carbon intensity" (CI) of gasoline and diesel fuel and their respective substitutes. The program is based on the principle that each fuel has "life cycle" greenhouse gas emissions that include CO₂, CH₄, N₂O, and other GHG contributors. This life cycle assessment examines the GHG emissions associated with the production, transportation, and use of a given fuel. The life cycle assessment includes direct emissions associated with producing, transporting, and using the fuels, as well as significant indirect effects on GHG emissions, such as changes in land use for some biofuels. The carbon intensity scores assessed for each fuel are compared to a declining CI benchmark for each year. Low carbon fuels below the benchmark generate credits, while fuels above the CI benchmark generate deficits. Credits and deficits are denominated in metric tons of GHG emissions. Providers of transportation fuels must demonstrate that the mix of fuels they supply for use in California meets the LCFS carbon intensity standards, or benchmarks, for each annual compliance period. A deficit generator meets its compliance obligation by ensuring that the amount of credits it earns or otherwise acquires from another party is equal to, or greater than, the deficits it has incurred.

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In 2011, Argonne National Laboratory published its Waste-to-Wheel Analysis of Anaerobic-Digestion-Based Renewable Natural Gas Pathways with the GREET Model. The final paragraph of this report reads as follows:

Finally, while this study assumes a robust market for RNG-based fuels, market issues are beyond the scope of this analysis. Because there are many renewable sources for electricity but few for NG, RNG may be an increasingly attractive option for entities required to implement low-carbon fuel standards and renewable-portfolio standards. Owing to historically low NG prices and recent advances in shale gas technology, projects to produce pipeline-quality NG are less viable in today's economic climate than they were a few years ago. However, the price differential between NG for stationary applications versus competing motor fuels remains a significant incentive for RNG, as do recently enacted low-carbon fuel standards.

The Argonne National Laboratory conclusion along with CARB's action in establishing LCFS, was prescient. The facts and circumstances that inspired CARB to enact LCSF have dramatically increased in importance over the years particularly in light of the fact that methane emits more heat in the atmosphere per molecule than carbon dioxide (CO₂), making it 80 times more harmful than CO₂ for 20 years after it is released. Cutting methane emissions by 45 per cent by 2030 could help us meet the Paris Agreement's goal of limiting global warming to 1.5°C. With these factors in mind, the continuation of LCFS is a critical part of transitioning our energy from fossil fuels to renewable energy resources.

Add to these factors, Biomethane Book and Claim has been vitally important in encouraging investment in bioenergy projects and operating facilities. As bioenergy equity investors, we view the continuance of this program to be central to meeting/exceeding climate action goals for methane reduction across the United States as well as stimulating private investment in furtherance of these goals in the years ahead.

Sincerely,



James Lavelle
Chief Executive officer

CC:

Steve Cliff, Executive Director
Rajinder Sahota, Deputy Executive Director for Climate Change and Research
Matt Botill, Division Chief

