

June 6, 2023

California Air Resources Board
1001 I Street
Sacramento, CA 95814
Via Online Submission

Comments on May 23, 2023 Workshop Auto-Acceleration Mechanism for the Low Carbon Fuel Standard

Dear California Air Resources Board (CARB) Low Carbon Fuel Standard Program Staff:

Thank you for the opportunity to provide comments in response to the “Public Workshop: Auto-Acceleration Mechanism for the Low Carbon Fuel Standard” held May 23, 2023. We appreciate CARB hosting this workshop.

As background, Oberon is an innovative California company founded in San Diego 12 years ago with a focus on decarbonizing the global LPG/propane industry while laying the foundation for renewable hydrogen. We are accomplishing this today by producing renewable dimethyl ether (DME) at our Brawley, California production facility. Oberon’s rDME® brand fuel can be made from various in-state waste streams (e.g., dairy manure biogas, waste water treatment biogas), which can enable smaller, often stranded, biogas suppliers to participate in the LCFS program and produce low carbon DME.¹ Oberon’s rDME fuel can reduce the carbon footprint of transportation when used as a: 1) blending agent with Liquid Petroleum Gas (LPG)/propane; 2) hydrogen carrier to power the growing fuel-cell electric vehicle market; and 3) diesel substitute. This range of creative applications clean fuels such as DME can support is underscored in the recently adopted 2022 Scoping Plan Update if the state is to reach its legislatively-mandated greenhouse gas reduction targets.

Responses to May 23, 2023 Workshop Presentation

Oberon strongly supports adoption of an auto-acceleration mechanism and immediate step down in stringency on the order of 5% or greater. We echo support for the presentation by the Low Carbon Fuels Coalition, of which Oberon is a member.

We also urge CARB to begin consideration of other policy tools that may positively impact emissions reductions for markets that need stronger long-term signals. For

¹ The California Air Resources Board has estimated dairy biogas-based DME made by the Oberon process has a carbon intensity of -278. rDME® is a trademark of Oberon Fuels, Inc.

example, expanding the LCFS or creating a LCFS-like structure to help facilitate decarbonization of other gasoline-, diesel-, fossil natural gas-, and propane-fueled applications in residential, commercial, and industrial markets is an opportunity that merits attention. Doing so would reward investments and use of cleaner fuels by these legacy sectors that are not anticipated to be electrified for many decades. In the last year new domestic and international policies have been established to apply the LCFS approach beyond transportation fuels such as Vermont's Clean Heat Standard, the Canadian Clean Fuel Regulation and the EU ETS II which cover both transportation and non-transportation fuel. Policy expansion will support additional reductions in greenhouse gas emissions by further accelerating the market development of low carbon fuels such as renewable DME.

Other Comments

Oberon wishes to reiterate a number of prior comments as CARB considers developing a final proposal. These are expanded upon in more detail in prior Oberon comment letters and are summarized here for convenience.

- **Avoided Methane Crediting**

Oberon encourages staff to extend the window for new pathways receiving avoided emissions credits from 2030 to 2040 to match typical project investor horizons and allow time to better ensure the most challenging projects anticipate a return on their investments that warrants proceeding. Otherwise, new investments in projects with the potential to reduce millions of tons of greenhouse gases as well as deliver co-benefits (e.g., in-state jobs, enhanced odor control, displaced petroleum fuel use) will be foregone.

We also note a problem with the draft regulatory language. The current language in § 95488.9(f)(3)(A) does not provide a separate crediting period for other "organic waste projects". This is a good opportunity to add clarity for other "organic waste projects" that are understood to be eligible to receive avoided methane credits such as poultry manure. Doing so is consistent with the objectives of the LCFS and will reduce uncertainty.

We also refer to Oberon's comments on the August 18, 2022 Workshop regarding avoided emissions credits from feedstocks other than dairy, swine, and organics diverted from landfill. CARB's draft regulatory language is silent on this topic. While we believe the current Tier 2 process is sufficient for a user to develop and CARB to approve avoided emissions credits for feedstocks such as poultry manure, project developers and users may benefit from further regulatory clarity.

- **Livestock Offset Protocol**

The Livestock Offset Protocol (LOP) uses methane conversion factors taken from Chapter 10 of the 2006 Intergovernmental Panel on Climate Change ("IPCC") entitled *Emissions from Livestock and Manure Management* ("Chapter 10"). Section 10.4 of Chapter 10 (pp. 35 - 52) provides these factors for many types of livestock in addition to dairy and swine, including poultry (both layers and broilers) and beef cattle. CARB may amend the LOP or create a separate LOP for the LCFS to add user clarity for other feedstocks.

- **Biomethane Crediting - Book-and-Claim**

CARB should expand the exemption to the deliverability requirements beyond hydrogen to include use in fuel production where biomethane is an intermediate feedstock if the finished fuel is physically delivered into California.

With appropriate limits and the verification and validation procedures CARB already has in place, we believe there is an opportunity to incentivize investments that deliver substantial reductions in greenhouse gas emissions while retaining the critical oversight and compliance that has been foundational to the success of the program.

- **Book-and-Claim of Low-CI Hydrogen**

We recognize that meeting California's ambitious goals for deploying large scale hydrogen projects will need to incorporate low carbon intensity hydrogen carriers such as DME. We ask that CARB consider adding explicit language or clarity around the opportunity to apply Book-and-Claim to hydrogen pathways that involve an intermediate step or use of hydrogen carrier-molecules.

- **ZEV Infrastructure**

Oberon believes CARB should weight infrastructure focus towards hydrogen as electric vehicle charging is substantially more mature, may have lower capital requirements, and has less commercial risk than hydrogen fueling infrastructure. Eligibility should be agnostic towards public or dedicated fleet refueling to allow market forces to drive the most cost- and environmentally-effective projects forward in the quickest timeframe possible.

Thank you for your time and consideration. Please do not hesitate to contact me at david.mann@oberonfuels.com with any questions.

Sincerely,

David Mann
Vice President, Regulatory and Government Affairs
Oberon Fuels