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October 16, 2024

Clerks' Office
California Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Proposed Amendments to the Low Carbon Fuel Standard (2nd 15-Day Changes)

Mainspring Energy, Inc. ("Mainspring") appreciates the opportunity to submit comments to the California Air Resources Board ("CARB") on the Proposed Amendments to the Low Carbon Fuel Standard (2nd 15-Day changes) released October 1, 2024. We strongly support the goals of the Low Carbon Fuel Standard (LCFS) and look forward to working with staff on guidance to ensure a level playing field for renewable electrical generation technologies, such as linear generators and fuel cells, as eligible for book-and-claim accounting of biomethane for electricity for electric vehicle charging.

We respectfully request the Resolution to adopt the Proposed Amendments to LCFS clarifies "fuel cell" within the following two subsections to include other renewable electrical generation technologies, such as linear generators. Similar to fuel cells, linear generators utilize a non-combustion reaction to convert biomethane into electricity with near-zero NOx emissions at levels well below CARB's distributed generation standard at all loads -- including during start-up.

The key provisions of concern added in the most recent 15-day changes include:

- 95488.8(i)(2) "staff proposes to allow for book-and-claim accounting of biomethane to produce electricity for electric vehicle charging, provided the electricity is generated using a fuel cell."
- 95488.9(b), "staff proposes to add a new temporary CI for low-CI electricity produced by fuel cell from biomethane from dairy and swine manure, based on existing program data."

Governor Newsom recently signed [AB 1921](#), which includes linear generators using renewable fuels as a "renewable electrical generation facility," as eligible for the California Renewables Portfolio

Standard Program and other state programs. This legislation maintains technology neutrality and provides a level playing field for fuel cells and linear generators. Linear generators offer the same capability as fuel cells to produce electricity from biomethane for electric vehicle charging.

Mainspring is a leading California-headquartered developer and manufacturer of linear generators, which deliver local power that is dispatchable and renewable fuel-flexible. Mainspring's linear generator offers a unique non-combustion capacity and energy solution that simultaneously addresses the critical need of reducing greenhouse gas and criteria pollutant emissions, while also enhancing grid reliability and resilience.

Modular and scalable, Mainspring's linear generators can be deployed near load, either customer- or grid-sited, with the ability to immediately generate electricity from a range of renewable fuels. Mainspring's inverter-based technology offers a full range of valuable grid benefits including fast (and unlimited daily) starts/stops, a wide dispatch range from minimum to maximum load, quick ramping, and, as necessary, on-site fuel storage. These capabilities allow linear generators to provide biogas producers with the flexibility needed for their complex and variable operations. Similarly, linear generators provide flexibility to end use customers such as Prologis Mobility and Maersk, which use linear generators coupled with battery energy storage to charge all-electric heavy duty drayage trucks, thereby eliminating local air pollution for the surrounding disadvantaged communities.

Linear generators are playing an important role in advancing California's zero emission vehicle goals and are carrying out the goals of the Low Carbon Fuel Standard Program and state's carbon reduction targets. As noted above, linear generators are already being used for EV charging of trucks serving the Ports of LA and Long Beach, and additional linear generator projects are planned to provide zero-emission electricity for large logistics operations statewide.

We respectfully request the clarification that "fuel cells" in these two subsections also include "linear generators" or "renewable electrical generation facility" and/or CARB's Resolution to adopt the Proposed Amendments to LCFS clarifies "fuel cell" to include other renewable electrical generation technologies, such as linear generators, to maintain technology neutrality and ensure a level playing field.

Without this clarification, the LCFS program will disproportionately benefit one renewable energy generation technology (fuel cells) at the detriment to others (linear generators). The uncertainty regarding the most recent and last-minute changes are already hindering linear generators projects

and disadvantaging a California technology that Governor Newsom, just days ago, defined as a “renewable electrical generation facility” to explicitly recognize linear generators as offering the same capability as fuel cells to produce electricity from biomethane for electric vehicle charging.

We strongly urge clarifying language to ensure a fair and equitable approach to achieve the goals of the LCFS program and the state’s carbon reduction targets.

Sincerely,

A handwritten signature in blue ink, appearing to read "Adam Simpson", followed by a long, horizontal, slightly wavy line that extends to the right.

Adam Simpson
Chief Commercial Officer and Founder
Mainspring Energy