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State of Washington
Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

Re: Comments on Proposed Amendments to Washington's Clean Fuels Program

Mainspring Energy, Inc. ("Mainspring") appreciates the opportunity to submit comments to the Washington Department of Ecology regarding the proposed rule language to Chapter 173-424 WAC of the Clean Fuels Program (CFP). We strongly support the goals of the Clean Fuel Standard (CFS), especially the recognition that book-and-claim accounting of biomethane used for generating electricity for electric vehicle (EV) charging is a critical tool for reducing transportation-sector emissions. We look forward to working with staff to develop technology-neutral language that ensures renewable electrical generation technologies such as linear generators and fuel cells are provided equal treatment on a level playing field.

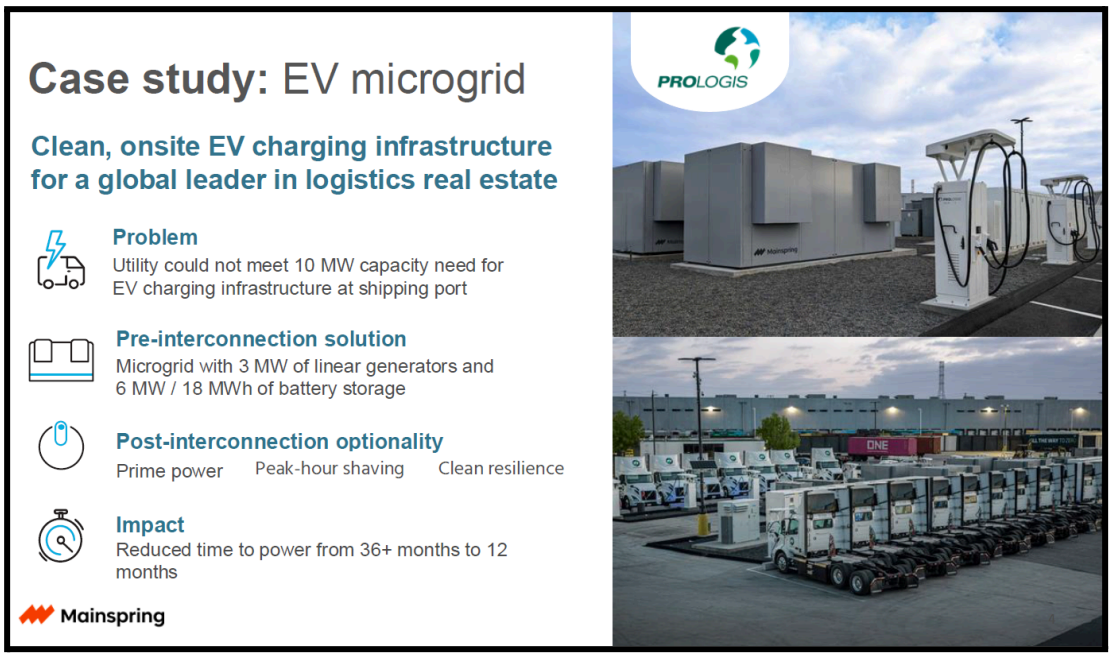
Mainspring's linear generator offers a unique fuel-flexible, non-combustion capacity and energy solution that simultaneously addresses the critical need of reducing greenhouse gas and criteria pollutant emissions, while also enhancing grid reliability and resilience. Linear generators use a low-temperature, uniform non-combustion reaction that maintains peak temperatures below the levels at which NOx forms (1500°C).

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 broad range of renewable fuels. Mainspring's inverter-based technology offers a full range of valuable grid benefits including fast starts/stops, a wide dispatch range from minimum to maximum load, quick ramping, and, as necessary, on-site fuel storage. Linear generators' ability to seamlessly transition between fuel sources provides customers with the flexibility to utilize biogas from a variety of feedstocks (biomass, wastewater, landfill gas, agriculture, etc) as needed for customers' complex and variable operations. Linear generators are also capable of running on renewable hydrogen blends, as shown by a California Energy Commission funded demonstration project with GTI Energy at CSU Long Beach to support South Coast AQMD's regional air quality efforts.[1]

Linear generators have also been deployed to enable large-scale fleet electrification by end use customers such as Prologis Mobility and Maersk. For example, as part of Prologis' EV microgrid, linear generators provide resiliency and reliability for charging the customer's 96 all-electric heavy duty drayage trucks while simultaneously eliminating local air pollution for the surrounding disadvantaged communities in Los Angeles

[1] South Coast Air Quality Management District's decision to execute the contract to evaluate performance and emissions of linear generators on different hydrogen blends in partnership with GTI Energy and California State University, Long Beach. https://www.aqmd.gov/docs/default-source/agendas/governing-board/2025/2025-may2-003.pdf?sfvrsn=9a949d61_2

County. The high dispatchability of the linear generator makes it ideally suited for providing electricity for EV charging applications versus technology that must remain running at all times.



Source: Mainspring Energy

Summary of Recommendations

1. Adopt technology-neutral language for page 78 of the proposed rule language for Chapter 173-424 WAC that ensures renewable electrical generation technologies such as linear generators and fuel cells are provided equal treatment on a level playing field.
2. Adopt technology-neutral language for page 143 of the proposed rule language for Chapter 173-424 WAC.

Proposed Amendments

Mainspring is concerned that the current language on page 78 of Chapter 173-424 WAC regarding "(7) Book-and-claim accounting for pipeline-injected biomethane" narrowly limits eligibility to only one technology, fuel cells. As a government agency, regulators are expected to develop technology neutral policies and programs to be aligned with the public interest principles of being equitable, inclusive, and fair. The goal of the CFS is to advance emission reduction solutions, not to arbitrarily pick technology winners and losers in the market. Mainspring strongly urges a technology-neutral approach that avoids restricting eligibility to a single technology. This will encourage investments into innovative commercially viable solutions and send a clear market signal to the clean energy and EV industries that the State of Washington is committed to accelerating the clean transportation transition.

The State of California has recognized that linear generators offer the same capability as fuel cells for producing renewable electricity. California's Governor Newsom recently signed AB 1921, a statutory designation that added linear generators using renewable fuels as a "renewable electrical generation facility," making the technology 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.

In the presentation materials from the November 2024 CFS Draft Rule Language there was specific reference to the California Air Resource Board's (CARB) Low Carbon Fuel Standard (LCFS). What you may not know is that CARB's executive Board realized their own staff made an error by solely naming fuel cells as the eligible technology for the LCFS. In fact, in the resolution the Board specifically directed the Executive Officer of CARB to:

> *"Be it further resolved that the Board directs the Executive Officer to monitor, report back to the Board as part of the next Scoping Plan Update, and propose any adjustments, if any of the following conditions may impede successful expansion of similar GHG reduction policies in other jurisdictions or impede the ability of the State to achieve its air quality and climate goals, and transition to zero emission technology:*
>
> - *Alternative fuel availability once sustainability guardrails are phased-in;*
> - *Hydrogen fuel availability to meet growing demand and role of state and federal incentives,*
> - *including alignment with federal hydrogen incentives to increase hydrogen supply;*
> - *Need for new provisions that* ***accelerate the deployment of new technologies that support low-carbon electricity for electric vehicle charging in the near-term, such as linear generators****."*

Mainspring shares these developments to illustrate why the State of Washington should also apply a technology-neutral approach that does not unnecessarily exclude technologies that can support the rapid deployment of solutions for reducing transportation-sector emissions.

For these reasons, we respectfully request the following language amendments (in bold) to be adopted into the CFP on page 78:

> (7) Book-and-claim accounting for pipeline-injected biomethane. Indirect accounting may be applied to biomethane used as transportation fuel, ~~to produce electricity using a fuel cell for EV charging,~~ **to renewable electrical generation facilities using non-combustion technologies such as linear generators and fuel cells producing electricity for EV charging**, to produce alternative jet fuel, alternative marine fuel, renewable diesel, and for hydrogen used in fuel cell vehicles.

Additionally on page 143 we request the following amendment:

> Low-CI electricity produced by **non-combustion technologies such as linear generators and fuel cells.**

Without these amendments, the CFP will arbitrarily benefit only one renewable electricity generating technology (fuel cells). The current exclusionary language risks slowing innovation and deployment of other commercially viable technologies such as linear generators in the State of Washington that are already supporting decarbonization efforts across the country.

Sincerely,

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