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Dr. Cheryl Laskowski
California Air Resources Board
1001 I Street Sacramento, CA 95812

Subject: July 7, 2022 Public Workshop: Potential Changes to the Low Carbon Fuel Standard (LCFS)

Dr. Laskowski,

FirstElement Fuel (FEF) is pleased to provide these comments regarding several of the topics where feedback was requested at the July 7 public workshop. In particular, 1) the 2030 carbon intensity (CI) target adjustments before and after 2030, 2) the medium and heavy-duty (MHD) hydrogen refueling infrastructure (HRI) crediting provisions, 3) extending the light-duty HRI, 4) simplifying the pathway application process for hydrogen pathways (Tier 1 calculator) and 5) inclusion of renewable energy (REC, RNG, etc.) applications for processing energy of Hydrogen production.

1) 2030 CI Target

FEF supports the most stringent target for 2030, scenario B, and reducing the CI to 30%. Despite the success of the program to date, the need for additional carbon reductions is accelerating. Given the dire climate related events across California and the world, ranging from wildfires and extreme weather, there is ample justification to act aggressively. We also believe that targets should be set beyond 2030 with regularly scheduled reviews in order to establish regulatory certainty and continue investment interest. For example, Oregon State is proposing to set their CI reduction target 37% below 2015 levels by 2035, with 3.4%/yr reduction from 2030 to 2035[1]. To be consistent with California's goal and other neighboring State's ambitions, an aggressive reduction target, for example 50% from 2011 levels by 2035 (=4.0%/yr, starting from 30% reduction by 2030), would be reasonable. FEF will follow up with LCFS Staff in the coming weeks to provide analyses of the benefits of a more aggressive reduction.

2) MHD HRI

FEF appreciates the inclusion of a MHD HRI provision modeled after the successful light-duty HRI, which has enabled significant private investment in hydrogen stations and spurred the deployment of additional stations throughout California. However, two of the concepts proposed in the workshop fall short of the incentives needed to spur the development of hydrogen stations that can serve heavy duty fuel cell trucks:
(1) the 3000 kgpd station cap will incentivize stations that are too small in capacity to appropriately serve the introduction of commercial fuel cell trucks; and
(2) if the crediting period concludes upon the recovery of capital expenditure, this will fall short of supporting the operation and maintenance expenses of a station, which in turn will constrain private investment into stations and put at risk the confidence for long-term operation of stations in the program. A total 15 year crediting period is the appropriate mechanism (similar to the policy implement for light-duty station HRI) because it provides a monetization stream with more certainty, thus unlocking private investment and assuring robust long-term operation.

[1] https://www.oregon.gov/deq/rulemaking/Documents/cfp2022m3Targets.pdf

Through the California Hydrogen Coalition, the industry is attempting to coalesce around a single proposal for MHD, but we are still developing the recommendation. We will provide an industry consensus proposal shortly.

3) Extending the light-duty HRI

FEF offers additional recommendations for consideration. Specifically, the light-duty HRI eligibility period should be extended for another ten years to 2035. The current program is highly successful and has enabled private investment for hydrogen infrastructure. It has becoming apparent that an acceleration of hydrogen station development is needed to meet both ZEV targets and CARB's scoping plan goals between now and 2035. Therefore, extension of an effective policy that has encouraged hundreds of millions of dollars of private investment is appropriate.

4) Simplified pathway application process for hydrogen pathways (Tier 1 calculator)

Current LCFS program allows participants to use either lookup table or Tier-2 pathways only for hydrogen pathway applications. FEF believes creation of Tier-1 pathway calculator for hydrogen pathway application process makes hydrogen more commoditized product and enhance the adoption. Also, this simpler process allows the player to quickly recover from the crisis situation (e.g., hydrogen supply outage, RNG supply outage, etc.). Conceptually, FEF believes that Tier-1 calculator for LNG pathways could be very similar to the one for hydrogen, by replacing LNG production part with Hydrogen Production calculation from look-up table assumptions. This allows some flexibilities to combine renewable natural gas as feedstock by keeping the same practice for Tier-1 bio-LNG pathway process.

5) Inclusion of renewable energy applications for process energy in hydrogen production

FEF also requests that CARB allow for renewable energy (both REC and RNG form) accounting in the hydrogen production processes. Current regulation allows hydrogen production facility to count book-and-claim renewable energy as feedstock only, and this limits opportunities to remove carbon emissions from the hydrogen supply chain.

FEF looks forward to working with CARB staff and throughout the LCFS update process. Should you have any questions regarding our comments, please do not hesitate to contact me.

Sincerely,

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