Iwatani
Iwatani Corporation of America

August 8, 2022

Cheryl Laskowski
Branch Chief, Transportation Fuels
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

**RE: California Air Resources Board's Potential Changes to the Low Carbon Fuel Standard**

Dear Dr. Laskowski,

Iwatani Corporation of America (ICA) would like to thank the California Air Resources Board (CARB) for the opportunity to comment on the potential changes to the Low Carbon Fuel Standard (LCFS) program. ICA owns and operates several hydrogen refueling stations across California and is rapidly expanding to serve the fast-growing hydrogen market in California and the U.S. ICA expects to have more than 20 light-duty stations in operation at the end of 2024[1]. Although the plans are not public yet, we are working on some very large heavy-duty projects that are expected to be shared in the near future. Since 1941, Iwatani has regarded hydrogen as the ultimate clean energy source and have consistently engaged in initiatives to encourage its widespread use. ICA is committed to support the zero emissions vehicle (ZEV) market by expanding the fueling infrastructure and supplying hydrogen to both light-duty and heavy-duty vehicles. Under the corporate slogan "A world where all enjoy true comfort – this is Iwatani's desire," we strive to solve environmental concerns with the aim of achieving a carbon free society through the use of hydrogen.

We want to congratulate CARB for developing and implementing the LCFS program which has saved more than 100 MMT of greenhouse gas (GHG) emission and surpassed expectations for renewable fuel growth production and reducing the carbon intensity (CI) of the transportation sector. Secondly, we support CARB in proposing potential changes to the LCFS program as we believe that the proposed changes make the program more efficient, resilient, and can potentially accelerate investment into many projects contributing further to the decarbonization of the transportation sector. Please find ICA's comments on certain proposed changes to the LCFS program.

[1] This letter contains forward-looking statements that reflect management's views and assumptions in the light of information currently available with respect to certain future events, including expected financial position, operating results and business strategies. These statements can be identified by the use of terms such as "will," "believes," "should," "projects," "plans," "expects," and similar terms and expressions that identify future events or expectations. Actual results may differ materially from those projected, and the events and results of such forward-looking assumptions cannot be assured. Any forward-looking statements speak only as of the date of this letter, and no duty is assumed to update such statements. Factors that may cause actual results to differ materially from those predicted by such forward-looking statements include, but are not limited to: unanticipated changes in demand for the company's principal products, owing to changes in the economic conditions in the company's principal markets; changes in exchange rates or the impact of increased competition; unanticipated costs or delays encountered in achieving the company's objectives with respect to globalized product sourcing and new information technology tools; uncertainties as to the results of the company's research and development efforts and its ability to access and protect certain intellectual property rights; the impact of regulatory changes and accounting principles and practices; and the introduction, success and timing of business initiatives and strategies.

**Increasing the CI reduction target pre-2030**

As discussed during the workshop, the LCFS program has been successful in reducing and replacing fossil fuels, accelerating investment in low-carbon fuel production, ZEV infrastructure buildout, and facilitating the transition to 100% ZEV sales by 2035. However, the oversupply of LCFS credits resulted in higher low-carbon fuel production which has created a sharp imbalance in the LCFS credit market. According to the LCFS quarterly reports[2] published by CARB, not only has the volume and diversity of low-carbon fuels increased significantly within past few years, but the CI of fuels has decreased leading to more LCFS credit generation and GHG savings. Moreover, substituting fossil fuels (gasoline and diesel) with low-carbon fuels and growth in ZEV sales have reduced the consumption of fossil fuels in transportation sector which ultimately reduced the demand for LCFS credits. While this clearly shows that the LCFS program is overperforming, the demand for LCFS credits should be strengthened to balance the market and achieve the decarbonization goals. ICA supports increasing the CI reduction target from 20% to 30% which accelerates the decarbonization of transportation sector and is aligned with the state's aggressive goals in GHG savings.

**Establishing the CI reduction target post-2030 and achieving zero emissions transportation**

Under the California's 2035 ZEV Mandate, all in-state sales of new passenger cars and trucks will be zero-emissions by 2035, which leads to lower consumption of fossil fuels. Furthermore, the medium- and heavy-duty ZEV mandate will be implemented by 2045. Thus, ICA believes that establishing the CI reduction target post-2030 will continue decarbonization of transportation sector, create a smoother path towards 100% ZEV sales by 2035, and make a more stable environment for long-term investments in low-carbon fuel industry.

As discussed in the workshop, strengthening the CI reduction targets pre-and post-2030 will pave the way for achieving ZEV Mandate goals which leads to fully decarbonizing the transportation sector. Aside from the fact that ZEVs create no emissions, ZEVs are more efficient compared to ICE (internal combustion engine) vehicles in both light-duty and heavy-duty, hence getting higher EER scores. ICE vehicles create primary and secondary pollutants which impact air quality especially along the highways and roads. According to EPA[3], the transportation sector has been one the main contributors in GHG emissions. Moreover, the pollutants from ICE vehicles directly impact human health especially those residing along the highways and main roads, and especially in disadvantaged communities. ICA believes that the only path to decarbonizing the transportation sector is through ZEV mandate and strongly supports strengthening the CI reduction targets pre-and post-2030 as an impactful strategy to support ZEV market expansion.

**Infrastructure Crediting**

Since CARB has established the infrastructure crediting program including HRI (hydrogen refueling infrastructure), and FCI (fast charging infrastructure) for light-duty vehicles, the number of fueling stations has grown significantly which is necessary for expansion of ZEV market and achieving ZEV mandate goals. The infrastructure crediting program has proven to be an efficient way to encourage ZEV infrastructure and support the state goals. ICA believes that a similar infrastructure crediting program for medium- and heavy-duty-vehicles, will help achieving the MHD ZEV Mandate targets. MHD ZEV is a necessary strategy for decarbonization of transportation sector and a more efficient way of using fuels (EER of 1.9 for MDH fuel cell). Hence ICA strongly supports CARB's proposal to extend the infrastructure crediting program to medium- and heavy-duty-(MHD) vehicles. Below are our comments regarding the current proposal:

- ICA highly recommends considering the 2.5% of previous quarter deficits as the total credits for MHD HRI. This will ensure a steady growth of MHD stations (supported by the HRI credits) which is necessary to make an impact in deployment of MHD ZEV.
- ICA urges CARB to increase the maximum station capacity from current proposed 3,000 kg/day to 4,800 kg/day, as the current proposed maximum capacity will result in maximum HRI credit based on 1,500

[2] https://ww2.arb.ca.gov/resources/documents/low-carbon-fuel-standard-reporting-tool-quarterly-summaries
[3] https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions

kg/day. ICA suggest 4,800 kg/day as the HRI capacity limit with 50% of the nameplate capacity as HRI credit. This will ensure that the stations with bigger than 3,000 kg/day capacity benefit from the HRI program, while the current maximum capacity might encourage investors to only focus on smaller capacity stations. Also, the 4,800 kg/day maximum capacity will potentially create financial incentive for the investors to grow the number of MHD stations.

Sincerely,

Tom Harrison

Vice President, Industrial Gases