July 26, 2022

Ms. Cheryl Laskowski
Branch Chief, Low Carbon Fuel Standard Team
California Air Resources Board
1001 I Street
Sacramento, California 95814

RE: Comments on "Potential Changes to the Low Carbon Fuel Standard"

Dear Ms. Laskowski:

Thank you for the opportunity to provide comments to the California Air Resources Board (CARB) on your "Potential Changes to the Low Carbon Fuel Standard," (LCFS) as presented by Staff at the July 7, 2022 Public Workshop.

Prologis is a leading developer of sustainably designed buildings that deliver multifaceted environmental benefits. We acquire, develop and maintain the largest collection of high-quality logistics real estate in the world. Our expertise is manifested through a comprehensive suite of solutions we offer our customers that help drive down energy usage, invest in renewable energy, and support decarbonization of supply chains. Not surprisingly, California -- with its world-leading goods movement system and network of logistical centers -- is a focus of our work in the U.S.

Prologis is an important -- albeit largely indirect to date -- player in the LCFS. We work with our customers to provide infrastructure buildouts that help transition our customers to zero-emission (ZE) battery-electric vehicles (BEVs), as well as fuel cell vehicles (FCVs) where applicable. However, as Prologis focuses efforts to accelerate the availability of electric vehicle supply equipment (EVSE) to our California customers, Prologis's role as a direct participant in the LCFS program is expanding. In general, we are strongly supportive of the "potential" LCFS changes now being considered and workshopped by Staff.

Respectfully, we submit comments regarding two key related issues, as highlighted below. We believe our recommendations can help make CARB's world-leading LCFS regulation even more impactful and successful than it has been to date. In addition to improving the LCFS and helping expand California's ZEV charging/fueling infrastructure, we believe our recommendations will also provide resiliency benefits during public safety power shutoff (PSPS) events, unlock additional energy storage opportunities, and support energy projects in the state.

About Prologis, Inc.

Headquartered in San Francisco, CA, Prologis, Inc. is the world's leading owner, operator, and developer of industrial real estate, focused on global and regional markets across the United States (U.S.), the Americas, Europe, and Asia. The company also leases modern distribution facilities to customers, which include manufacturers, retailers,transportation companies, third-party logistics providers, and other enterprises.

Prologis is also the world's leader in logistics real estate solutions, with a U.S. footprint covering approximately 614 million square feet of warehouses and distribution centers in about 3,230 buildings in

21 states. California is our largest market, where our portfolio includes close to 160 million square feet of space. These assets are an essential link in the flow of products throughout the country, with over $1.3 trillion worth of goods flowing through Prologis' American distribution centers each year. This accounts for 30% of all goods shipped throughout the country and more than 6% of U.S. GDP across a wide variety of product categories, including food and beverage, apparel, electronics, medical supplies and pharmaceuticals, building and transportation supplies, and automotive supplies. Further, Prologis and its customers contribute roughly $36 billion to the U.S. tax base every year.

In addition to providing exceptional service to its customers, Prologis distinguishes itself by working closely with each community in which it operates to ensure sustainable development, develop workforce solutions for the next generation of talent for the logistics industry, and provide environmental stewardship and leadership.

Prologis is also defining the future of commerce through investments in emerging technologies through Prologis Ventures. Its investment strategy is focused on addressing Prologis customers' most critical pain points and driving operational efficiencies in labor, transportation, warehouse operations, energy, and digital.

We are committed to being a national leader in the rollout of EV charging stations and providing enabling infrastructure to support Governor Newsom's Executive Order N-79-20 to transition light-duty and heavy-duty vehicles to ZEVs. Prologis supports our customers globally with various retrofit and build-to-suite vehicle electrification projects across last-mile and heavy-duty applications. As EV adoption accelerates, we expect EV charging to be ubiquitous across our portfolio around the world. We are here to empower our customers in their transition to a zero-emission vehicle future. Prologis is focused on supporting the net zero carbon transition of the movement of goods across long haul, last mile, drayage, and amenity.

Prologis works closely with its customers to understand their environmental goals and programs and has set a goal of achieving net zero operations across its value chain by 2040. Prologis' rooftop solar installations are a brand differentiator and place us third for on-site solar capacity among U.S. companies. We currently have 325 megawatts (MW) of solar generating capacity installed across our portfolio, with a goal of 1 GW of solar supported by storage by 2025.

By staying ahead of what's next, Prologis is helping to shape the next generation of American infrastructure and commerce.

Transportation Policy Alignment Comment #1: Permit Book & Claim Accounting for Low-CI Electricity via Directed Biogas RNG Generation

As laid out by CARB staff during the workshop presentation, there are three basic types of "potential" LCFS changes that fall under the category of transportation "Policy Alignment" (slide 18). Under the "Fuel Pathways" subcategory, one highlighted new opportunity is to modify "Book & Claim accounting for low-CI electricity." Staff lays out several "principles for alignment" (slide 19), including intent to "accelerate deployment of ZEV refueling infrastructure." Prologis is highly supportive of changes to the LCFS that can help bring this to fruition. Below, we provide a specific recommendation that fits well into this policy category.

Respectfully, we believe that some elements of current LCFS policy are *counterproductive* to the objective of building out ZEV infrastructure, and therefore should be realigned. Under the current regulation, entities can generate LCFS credits by producing low-CI transportation fuel (natural gas or hydrogen) when generated with RNG via directed biogas. The RNG is not required to be physically delivered to either a CNG fueling station or a hydrogen production facility; instead it may be injected into a common carrier natural gas pipeline and "directed" to the CNG or hydrogen facility. This mechanism is referred to as "Book & Claim" within the LCFS program. CARB recognizes that this paper transaction to generate LCFS still results in lower GHG emissions in each fuel's pathway while affording a great degree of flexibility to natural gas and hydrogen producers to secure low carbon feedstocks from waste sources that would otherwise result in methane emissions if not captured. Today in California, virtually all RNG is delivered this way to CNG stations. Similarly, virtually all renewable hydrogen delivered in California is produced from RNG "directed" to steam-methane reformation facilities.

Unfortunately, this policy does not currently apply to the use of directed biogas RNG or directed hydrogen *to generate renewable electricity*, which is needed to charge California's growing fleet of BEVs used in goods movement. Contrary to the above cases, using directed biogas RNG or directed hydrogen to power electrical generators is currently excluded from generating LCFS credits unless the RNG or hydrogen is *directly* supplied to the generator.

Prologis believes that there is no meaningful difference in the validity of using of directed biogas RNG for electricity generation, CNG fuel stations, or hydrogen production facilities. Similarly, Prologis believes there is no meaningful difference in the validity of using directed hydrogen for electricity generation or hydrogen stations.

However, the transportation landscape regarding BEV charging is changing. The reality is that this policy now hinders CARB's very intent to help "accelerate deployment" of BEV recharging infrastructure. Electrical utilities face unprecedented demand for additional grid supply to facilities building out charging infrastructure. They often give multi-year lead times for additional service capacity which delays the deployment of EVSE and create unavoidable conflicts with State policies and regulations, including the Advanced Clean Trucks and pending Advanced Clean Fleets regulations.

Prologis has direct relevant experience here. As one example, we have an active California project that will need 14 megawatts of peak power capacity to accommodate all BEV loads at the site. The local utility indicates it will take up to three years to make the changes needed to deliver that level of power at the site despite the BEV trucks arriving at site next year. Prologis is ready and able to meet that power need on location next year ("behind the meter") by deploying low-CI, RNG-based electrical generation. However, this would be a costly solution if low CI Book & Claim accounting for directed biogas RNG remains blocked.

Allowing the use of directed biogas or directed hydrogen for generation of electricity at EV charging facilities would enable fleets and facility owners to simultaneously address grid capacity limitations – with grid resiliency co-benefits such as during PSPS events – and produce carbon-negative electricity, accelerating the State's decarbonization goals under AB 32.

We respectfully urge CARB to revise its Book & Claim policy and extend it to apply when directed biogas RNG or directed hydrogen is used to generate electricity for recharging battery-electric vehicles (BEVs) at a location physically separated from the biogas or hydrogen production. It is important that any changes made to this part of the LCFS allows flexibility. In this way, the policy change we recommend can *broadly*

help “accelerate ZEV refueling infrastructure” in California.

Transportation Policy Alignment Comment #2: Remove the public-access requirement for MHD FCI, and modernize the FSE definition to avoid unintentional disincentives for new multi-port equipment architectures

Also highlighted in slide 18 of the Staff July 7 presentation is potential policy alignment on “ZEV Infrastructure Crediting, LDVs.” One “new opportunity” highlighted in the slide is Fast Charging Infrastructure (FCI). Prologis is supportive of the addition/creation of an FCI pathway that applies to medium/heavy-duty vehicles (MHVs). Again, given the way that State and local regulations (ACT, ACF, SCAQMD Indirect Source Rule, etc.) will be driving deployments of battery-electric MHVs, it will be essential for the deployment of MHV-compatible charging infrastructure to precede vehicle deployments, not only in greater numbers but also supporting future charging capacities and power levels.

However, it must be recognized that while the requirements of the current light-duty FCI pathway are reasonable for public-access, consumer vehicle charging, they are not entirely appropriate for MHV charging. MHVs are operated by commercial fleets that regularly fuel on their property or at access-controlled facilities such as cardlock stations. While these facilities supply much of the transportation fuel currently used by MHVs, they are by their nature not suitable for the unrestricted, public access requirements of the current FCI pathway. Prologis recommends that a public access requirement not be included in an FCI pathway for MHVs.

Prologis also encourages Staff to provide greater flexibility with respect to the definition of FSE under a new FCI pathway. As MHV sites move to high-density FSE deployments, new charging topologies are emerging such as multi-port all-in-one cabinets. Such cabinets have the same functionality as separate dispenser cabinets that share power from a central power cabinet, however, because they only have one serial number, it qualifies only as one FSE. The FCI credit formula yields a much lower FCI credit potential in this case than with the functionally identical but older distributed topology involving multiple serial numbers sharing the same amount of power from a separate power cabinet. As such there’s a significant FCI bias toward separated cabinet topologies even though they can be more costly to procure, install, and commission than functionally identical all-in-one multi-port cabinets.

Conclusion

Prologis has and will continue to partner with CARB, other state regulators like CEC, local agencies such as SCAQMD, and fleets throughout California to expedite the build-out of BEV charging infrastructure. We believe our recommendations described above support and enhance CARB's goals to continue making improvements to the LCFS program that can accelerate both supply and demand/deployment of BEVs – especially MHVs used in the critical goods movement sector. We would be pleased to follow up with staff and Board Members directly to share our experiences around technology, infrastructure, and operations associated with BEV deployments, to help support an efficient, expeditious and effective transition to ZEVs in California.

Thank you for this opportunity to contribute to ongoing improvements to an already successful LCFS program. We look forward to engaging with CARB on the issues raised herein. Please do not hesitate to

reach out to us with any questions you may have about these comments or Prologis' capabilities to support the State's clean energy transition.

CONTACT

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