

DOCKETED

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**Prologis Comments on the Draft Zero-Emission Vehicle
Infrastructure Plan**

Additional submitted attachment is included below.

May 13, 2022

Michael Nicholas, PhD
California Energy Commission (CEC)
Docket No. 21-TRAN-03
715 P Street
Sacramento, California 95814

RE: Comments on the Draft Zero-Emission Vehicle Infrastructure Plan

Dear Dr. Nicholas:

Thank you for the opportunity to comment on the Draft Zero-Emission Vehicle Infrastructure Plan (ZIP). As major real estate owners in California committed to supporting the State's transition to zero emission vehicles (ZEVs), we hope you will consider us key stakeholders and partners in deploying ZEV infrastructure.

We believe the plan thoughtfully addresses the ZEV landscape in California and accurately acknowledges both the barriers and the opportunities to successful deployment of medium- and heavy-duty (MD/HD) ZEVs and associated infrastructure. As the CEC further refines this document and continues implementing billions in funding to support ZEV infrastructure, we particularly urge you to:

- Focus on warehouses and intervals in between warehouses and other goods movement facilities as optimal locations for electric vehicle (EV) charging and hydrogen refueling stations;
- Support integrated energy solutions to overcome common barriers to deploying ZEV infrastructure, by further emphasizing distributed energy from solar, low-emission renewable natural gas (RNG) and hydrogen generators such as microturbines or fuel cells, with storage, as an important element of EV charging in the Final ZIP;
- Prioritize and fund projects with these aforementioned technologies moving forward; and
- Support investment in more efficient hydrogen generation and distribution infrastructure to reduce the cost hurdles of hydrogen fueling.

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 609 million square feet of warehouses and distribution centers in about 2,967 buildings in 21 states. California is our largest market, where our portfolio includes close to 150 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. 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.

Our commitment to being a part of the solution for the clean energy economy is not new. Prologis' rooftop solar installations are a brand differentiator and place us third for on-site solar capacity among U.S. companies. We currently have 252 megawatts (MW) of solar generating capacity installed across our portfolio, with a goal of 400 MW by 2025. By staying ahead of what's next, Prologis is helping California shape the next generation of American infrastructure and commerce.

With Prologis' sizeable footprint in the State and our work on the frontlines of the growth and management of e-commerce and supply chain management, we are interested in partnerships with the government to advance workforce development opportunities, particularly in disadvantaged and low-income communities, helping meet the challenge of climate change by expanding our solar and storage investments, and accelerating deployment of EV charging stations to serve medium- and heavy-duty vehicle fleets.

Priorities to Accelerate Medium/Heavy-Duty ZEV Infrastructure Investment in California

In our previous comments on the ZIP outline,¹ Prologis offered the following recommendations to support the most optimal ZEV infrastructure deployment and overcome barriers to private sector investment, especially to support the transition to ZEVs in medium- and heavy-duty fleets:

- Include real estate owners as key stakeholders
- Prioritize warehouses as optimal locations for workplace charging and medium- and heavy-duty ZEV infrastructure
- Support integrated and resilient energy solutions paired with ZEV infrastructure

We are pleased to see the Draft ZIP includes a focus on the role private sector investment has and will continue to play in deploying ZEV infrastructure to meet the State's goals. It also includes some reference to the benefits of aligning ZEV infrastructure with deployments of distributed generation and energy storage.

However, it does not mention real estate owners as key stakeholders and enablers of additional ZEV infrastructure deployment, nor does it mention warehouses as important locations to support medium and heavy-duty ZEV infrastructure. It also does not identify energy storage and distributed generation as a priority to include in CEC's ZEV infrastructure programs moving forward to help overcome barriers to ZEV infrastructure, including high electricity prices and impacts from potential grid disruptions.

¹ <https://efiling.energy.ca.gov/GetDocument.aspx?tn=241422&DocumentContentId=75376>

Anticipating future needs-based grid investments to support MD/HD ZEV adoption

Prologis appreciates the Draft ZIP's recognition of the efforts of the California Transportation Commission's SB 671 Working Group in understanding where MD/HD vehicles park, and CEC's own funding for infrastructure "blueprints" to ensure that local grid capacity is adequate for new load. This planning should specifically consider warehouses, and intervals in between warehouses and other goods movement facilities, which offer the most convenient and lowest impact location for MD/HD fleet charging, with the least deviation from scheduled routes and duty cycles. Many of our customers and their partners, for example, are planning rapid transitions to electric or fuel cell trucks, due to their own climate initiatives, state incentives, and forthcoming regulations at a regional and statewide level. EV charging or hydrogen refueling at or near warehouses provides an attractive and convenient solution for many of our customers and fleets serving them, including drayage trucks, and should be a key element of the State's ZEV infrastructure planning and investment.

Of course, logistics real estate locations are sited optimally based on the needs of the logistics industry and customers, and do not necessarily follow the grid. Accordingly, in order to support MD/HD electrification, blueprint and other grid planning activities should look to track logistics supply chains and ensure that the grid is bolstered and prepared for transportation electrification along transportation and goods movement routes and at warehouses and other areas where logistics hubs are sited and expanding. As it evaluates grid needs, the CEC should directly engage not only the utilities in planning, but also industrial real estate property owners to understand where high growth and future growth locations for the logistics industry may be located to meet future needs for MD/HD ZEV charging.

Also, while the enacted federal Infrastructure Investment and Jobs Act makes significant investments in building out a national charging infrastructure network, the majority of these funds are dedicated to providing charging infrastructure for personal vehicles. California will need to make up the difference in building out charging infrastructure to sustain the state's goods movement industry, particularly as developable land becomes increasingly scarce near the coast and new warehousing and distribution site development moves further inland. Meeting the needs of the coming MD/HD transition to ZEVs will require land and industrial property owners to play a critical supporting role. We strongly suggest the Final ZIP expressly note opportunities to engage real estate stakeholders in this planning.

Standardization of Charging Technology Reduces Cost Barriers to MD/HD ZEV Adoption

Prologis supports the Draft ZIP's emphasis on relevant open standards like the Combined Charging Standard (CCS), which are seeing wider adoption in the MD/HD ZEV market. The Draft ZIP rightfully acknowledges the light-duty EV market is moving away from CHAdeMO fast charging connectors, and Prologis encourages accelerating the phasing out of public incentives for this technology. It is also important to note that CHAdeMO connectors pose an additional challenge to the MD/HD sector and are prohibitive for entities seeking to access CARB's fast charging infrastructure (FCI) LCFS capacity credit system.

Currently, MD/HD ZEVs have access to these FCI credits but are constrained by some CHAdeMO adoption requirements at charging sites. This is a useless, vestigial requirement at an added cost to entities investing in charging infrastructure. We urge the CEC to make note of this in the Final ZIP, alongside its

recommendation to phase out CHAdeMO.

Additional Considerations for Hydrogen Fueling for MD/HD ZEVs

Prologis appreciates that the Draft ZIP contains a robust assessment of the hydrogen fueling landscape, which will be an important fuel to power MD/HD ZEVs. However, in addition to electrolysis – given existing burdens on the electricity grid and the new burdens energy-intensive electrolysis would pose – we encourage the CEC to consider green hydrogen production and use from RNG steam methane reformation or other biogas pathways. With a large, established agricultural industry, California would be well positioned to take advantage of this technology and accelerate its prevalence.

These pathways reveal another barrier to adoption of higher priced MD/HD ZEVs, however. Biogas-based hydrogen pathways are not eligible to generate Renewable Identification Numbers (RIN) under the federal Renewable Fuels Standard, while biogas used in compressed natural gas (CNG) vehicles is eligible. This bolsters the case for CNG vehicles compared to fuel cell ZEVs, while ZEVs continue to be expensive to manufacture/purchase and are barred from accessing the RIN market.

Prologis recommends the Final ZIP make note of this disparity and further emphasize the impact per-vehicle ZEV funding opportunities could have on making up the deficit. Pending legislation such as Assembly Bill 2554 would help close the price gap between MD/HD ZEVs and CNG vehicles.

Overcoming Barriers to Medium/Heavy-Duty ZEV Infrastructure

In the Final ZIP, we encourage you to bolster reference and commitment to these items. In particular, we firmly believe that industrial real estate owners and their properties are key to overcoming many of the barriers that face medium- and heavy-duty fleets looking to transition to ZEVs – including independent owner-operator fleets and those located in rural areas.

Warehouses and distribution centers are a critical element of California’s flourishing goods movement industry, which according to the Southern California Association of Governments (SCAG), supports 37 percent of all jobs in Southern California. These sites attract a large and wide array of employees and therefore offer attractive locations for workplace charging that may be highly utilized and able to serve a wide range of residents. In California, Prologis and its customers employ roughly 144,008 individuals under our roofs across 780 facilities.

Integrated energy solutions like distributed generation and storage can reduce EV charging costs, support effective grid integration and resiliency for EV charging in the face of potential grid challenges, including public safety power shutoffs. Pairing EV charging with on-site solar, low-emission RNG and hydrogen generation, and energy storage can help alleviate grid impacts and associated demand charges from EV charging, while providing a buffer against potential grid disruptions. We hope the Final ZIP will further highlight this promising opportunity and commit to prioritizing it in the State’s medium- and heavy-duty ZEV infrastructure programs moving forward.

Again, real estate owners and warehouses in particular are uniquely capable of enabling these integrated solutions. Warehouses provide abundant roof space for solar installations and can support battery installations to better integrate solar generation and EV charging into the grid. Prologis facilities are also co-located within key logistics corridors, allowing us to balance this energy supply with vehicle load. This

geographical supply/demand synergy also makes our properties ideal locations for accelerated hydrogen hub development. Large-scale, distributed energy generation sited at warehouses and distribution centers provides an important opportunity to meet California’s clean energy goals and increase grid capacity and reliability in the near-term.

Lastly, the Draft ZIP acknowledges the role California policy direction has played to “prime the MDHD market to move in the direction of zero-emission,” and notes the commitments large companies have made to adopt ZEVs in their fleets. Prologis is proud to say that many of these large companies are our customers. However, roughly 80 percent of our customer base is small- and medium-sized businesses (SMBs), without the scale and access to capital of larger companies to transition to ZEVs as quickly. We urge the CEC to ensure that the perspective of SMBs, particularly the distinct challenges they face in transitioning to ZEVs relative to larger companies, is fully reflected in the Final ZIP.

Conclusion

As one of the largest industrial real estate owners in California and the world, Prologis and our customers are uniquely positioned to advance California’s transportation electrification goals. We look forward to partnering with the CEC and other agencies and stakeholder to advance the State’s priorities around transportation electrification, climate change, air quality, and equity.

Thank you, again, for the opportunity to comment on the Draft ZIP. 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.

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