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<th><strong>Docket Number:</strong></th>
<th>19-TRAN-02</th>
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<td><strong>Project Title:</strong></td>
<td>Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure</td>
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<td>Prologis, Inc Comments - Staff Workshop on Funding Allocations for Future MD-HD Charging and Refueling Infrastructure Projects</td>
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Prologis Comments - Staff Workshop on Funding Allocations for Future MDHD Charging and Refueling Infrastructure Projects

Additional submitted attachment is included below.
March 18, 2022

Kathryn Reid  
California Energy Commission  
Docket Unit, MS-4  
Docket No. 19-TRAN-02  
715 P Street  
Sacramento, California 95814

RE: 19-TRAN-02 MD/HD Allocation

Dear Ms. Reid:

Thank you for the opportunity to comment on the February 28, 2022 Staff Workshop on Funding Allocations for Future Medium- and Heavy-Duty (MD/HD) Charging and Refueling Infrastructure Projects. As a real estate owner serving a wide array of customers with MD/HD fleets, Prologis is well positioned to help the California Energy Commission (CEC) and State meet their goals for zero emission vehicle (ZEV) infrastructure for MD/HD vehicles.

In particular, in all relevant MD/HD infrastructure programs, we encourage the CEC to focus on warehouses and intervals in between warehouses and other goods movement facilities as optimal locations for MD/HD ZEV infrastructure. We also hope that you will fully evaluate and support solutions to overcome common barriers, including deploying integrated energy solutions with solar and storage associated with ZEV infrastructure. Specific comments on the concepts proposed are provided below.

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 269 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, help meet the challenge of climate change by expanding our solar and storage investments, and accelerate deployment of EV charging stations to serve medium- and heavy-duty vehicle fleets.

**Overarching Recommendations**

Prologis believes the electrification of logistics fleets is critical to the future of commerce. As such, we are committing our talent and capital to advance this capability and offer new solutions for customers across the State. We hope to collaborate at the state and local level to help achieve a quick and effective deployment of ZEV infrastructure for MD/HD vehicles across California that builds on existing logistics networks and works in concert with community partners to advance State objectives.

Real estate owners like Prologis can serve as key enablers of the State’s transportation electrification objectives by facilitating coordinated, planned, and more rapid expansion of ZEV infrastructure needed to support the electrification of MD/HD vehicles. As the CEC considers an array of new MD/HD programs, we encourage you to:

- Consider real estate owners as key partners in accelerating MD/HD ZEV market development.
- Focus on and prioritize warehouses as optimal locations for MD/HD ZEV infrastructure, including for serving drayage vehicles, independent owner operators (IOOs), and regional and long-haul ZEVs.
- Support integrated and resilient energy solutions, including solar and storage connected to MD/HD ZEV infrastructure.
- Consider mechanisms to provide greater revenue certainty, such as utilization guarantees, which will encourage project developers to deploy capital more quickly.

**Specific Recommendations**

We appreciate the breadth of concepts and the specific questions posed at the workshop. We offer the following comments and recommendations to some of those concepts and questions, below.

**Truck Parking EV Charging and Hydrogen Refueling**

- *What types of entities should be eligible to apply?*
  We encourage you to engage industrial real estate property owners and include them as eligible
applicants. They are best situated to support the many customers who operate MD/HD fleets but lease rather than own industrial space, which will advance optimal solutions for MD/HD ZEV deployment across a range of applications and geographies.

- **What amount of grant funds would be appropriate for this type of project?**
  A 50% cost share offers a good benchmark for the industry. In the case of hydrogen refueling, 75% is appropriate.

- **What would be the best way to integrate truck parking charging and refueling with a freight corridor?**

- **Which geographic locations should be targeted for these funds?**
  Regarding both these questions, we encourage CEC to coordinate with the State Freight Plan being developed pursuant to SB 671, which will identify freight corridors and infrastructure to support MD/HD ZEV vehicles. We also appreciate that the SB 671 assessment directs consultation with the CEC to support deployment of distributed energy resources along freight corridors and associated with MD/HD ZEV deployment, including deployment of microgrids.

**Warehouse and Regional Trucking**

- **How can we best provide refueling/charging options for warehouse and regional fleets?**
  Infrastructure should be collocated at distribution centers or hubs within clusters of distribution centers, which will make it widely available to an array of users, including those offering mobility as a service to fleet operators.

- **Is depot charging/home-base charging sufficient or is public charging or opportunity/destination charging necessary?**
  For last mile and many predictable vehicle route use cases, depot or home-base charging can suffice and is the most optimal for the majority of deployments. However, not all fleet use cases can be served by home-base charging alone. Furthermore, grid constraints can influence the economics associated with home-base charging. We encourage the CEC to support a broad array of solutions for regional trucking, including opportunity/destination charging in and around distribution centers.

- **Should geographic areas be targeted for these funds?**
  We encourage the CEC to avoid limiting optionality or picking winners and losers. In general, imposing fewer constraints on funding programs is better and will support a broader array of solutions and greater innovation. Applicants will naturally target areas with a high density of MD/HD vehicles and operations, but there may be good opportunities and needs away from those main freight corridors, as well, and CEC should avoid limiting opportunities for vehicles operating anywhere in the state.

- **Should infrastructure be shared between organizations/businesses?**
  Maybe, but not necessarily. Again, we encourage the CEC to remain flexible and avoid imposing unnecessary constraints on its programs. Some large fleets may utilize the full ZEV infrastructure capacity at a right-sized site, and sharing may be unnecessary or offer little benefit in those cases. In others, such as multi-tenant hubs, shared infrastructure may be valuable. The CEC should allow flexibility for fleets and project developers to decide what configuration makes the most sense.
and determine whether a ZEV infrastructure project should serve a single customer or fleet, or more than one.

- **What amount of grant funds would be appropriate for this type of project?**
  We encourage the CEC to support a 50% cost share for this type of project, which may equate to about $500/kW of site capacity.

**Innovative EV Charging & Hydrogen Refueling Technologies**

BESTFIT has been a critical funding program to help introduce new technologies and approaches for MD/HD ZEV infrastructure. As the industry continues to evolve, we encourage the CEC to continue funding this program to help advance emerging technologies and ongoing innovation. This is especially critical given the nascent state of the market for MD/HD ZEVs and the forthcoming introduction of the Megawatt Charging Standard. We also encourage CEC to prioritize MD/HD applications in future BESTFIT programs, as light-duty applications represent a more mature market with less uncertainty around optimal infrastructure solutions.

- **Is a maximum award of $2M the right amount?**
  We encourage CEC to support tiered awards, where smaller innovative projects may be awarded at less than $2 million and larger, more transformative projects may receive up to $5 million.

- **Should we have a 2-phase application process (initial 5-page abstract, followed by a full application if the abstract passes)?**
  We support this proposed approach, which will ease and streamline the application process to ensure applications best align with the objectives of the program. We further encourage CEC to streamline the complete application process, and leverage the initial application to allow the full application process to be as simple as possible.

**Mobility-as-a-Service Models**

- **What current models exist and how could they be innovative/improved?**
  Transitioning to MD/HD ZEVs can pose a major risk – perceived or real – for fleet operators. There is technological uncertainty, economic uncertainty associated with potential costs and new revenue streams, and energy uncertainty related to grid reliability and emissions. Various mobility-as-a-service options can help fleet operators feel more confident transitioning to new technologies and addressing some of these uncertainties they may face.

- **How can this concept specifically target the drayage sector, which is heavily composed of independent owner operators (IOOs), who may be unable to purchase ZEVs or finance their own infrastructure upfront?**
  The CEC should design its programs to ensure MD/HD ZEVs at least achieve cost parity with conventional vehicles. This is critical for the market, especially IOOs, and should also apply to the secondhand market.

- **What component of these models would be the most advantageous for the CEC to fund (ex. construction of ZEV infrastructure)?**
CEC should support these models through financing for not just ZEV infrastructure, but integrated energy solutions, including remotely-sourced and distributed energy resources – such as behind-the-meter resources including on-site solar and fuel cells – to help provide increased economic, environmental and operational certainty for fleets converting to MD/HD ZEVs, including through mobility-as-a-service models.

- **What amount of grant funds would be appropriate for this type of project?**
  We encourage CEC to offer grant funds equivalent to 50% of a project, or $500/kW of capacity, whichever is less, and use a voucher system or discount on vehicle to ensure cost-parity (at a minimum) with conventional vehicles.

**Large Scale Ultra-Fast Charging Stations**

- **What defines a site as large scale? How many chargers/outlets would be the minimum?**
  We believe an appropriate minimum size for a site from a cost-effectiveness standpoint is 10 chargers.

- **What is the industry accepted minimum for ultra-fast charging?**
  The industry accepted standard for ultra-fast charging currently is 180-350 kW.

- **How many entities would be able to apply to this sort of solicitation, due to the large scale?**
  Higher project caps will support fewer, bigger projects and perhaps greater cost effectiveness, but fewer applications. CEC should carefully consider opportunities, needs, and cost-effectiveness to determine the scope of applications eligible under this concept.

**MD/HD Blueprint Planning Documents**

- **Should the blueprints be targeted to a specific geographical area? Nonattainment areas, disadvantaged communities, low-income communities?**
  Dedicated planning for MD/HD infrastructure should align with the SB 671 process and working group. Should CEC fund additional blueprint planning, it should do so along prioritized freight corridors.

**MD/HD Loan Pilot**

We appreciate the proposed concept and CEC exploring opportunities to stretch available funding to reach needed market scale for MD/HD ZEVs. Access to capital is not currently a barrier for Prologis or many entities that we expect will be supporting the transition to ZEVs in MD/HD vehicle space, so loans may not be particularly helpful.

However, there could be other financing mechanisms or policies that could help stretch CEC dollars further, and we encourage you to consider them. For example, CARB’s fast charging infrastructure capacity credit under the Low Carbon Fuel Standard is an important tool that supports deployment of EV infrastructure that may be under-utilized in the early market. Expanding that credit to the MD/HD space would help to overcome barriers to ZEV infrastructure deployment identified at the workshop, including reducing risks associated with building out MD/HD charging hubs. Similarly, CEC could consider a
utilization guarantee or other mechanism to leverage LCFS credits and support ongoing operating costs/revenue, especially in the early market when utilization may be low.

**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 stakeholders to advance the State’s priorities around MD/HD vehicle electrification, as well as climate change, air quality, and equity.

Thank you, again, for the opportunity to comment on the MD/HD Funding Allocation Workshop. 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 climate and transportation electrification goals.

**CONTACT**

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