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Greenlane Infrastructure, Inc Response to Docket 24-EVI-01

Additional submitted attachment is included below.



**Feel Good
About the
Road Ahead**

From: Greenlane Infrastructure, LLC
To: California Energy Commission
Docket: 24-EVI-01
Date: February 27, 2025
Subject: U.S. Department of Transportation's Charging and Fueling Infrastructure Grant Program

Thank you for the opportunity to provide public comments to the California Energy Commission's concepts for California Charging and Fueling Infrastructure (CFI) Program (Docket: 24-EVI-01).

Greenlane's sole business purpose is to facilitate the transition of medium and heavy-duty (MDHD) commercial fleets to zero emission (ZE) by providing critical zero emission vehicle (ZEV) fueling infrastructure along key freight corridors across the country. The transportation sector is now the largest source of GHG emissions in the U.S. MDHD vehicles account for less than 10% of vehicles on the road but are responsible for 23% of GHG emissions in the transportation sector. Furthermore, diesel emissions have a disproportionate impact on air quality and human health. Poor health outcomes from diesel pollution are pronounced and well documented in underserved communities across the country.

Greenlane recently announced its first commercial electric vehicle (EV) charging corridor along I-15 in California. The sites include Colton, Barstow, and Baker, California; combined, the three (3) sites will install more than 100 chargers one mile or less from an Alternative Fuel Corridor (AFC) alongside modern amenities, on-site power generation and energy storage, utilizing carbon free power at every site. Greenlane will open its inaugural flagship location in Colton, California in early 2025. The Colton charging hub will offer a variety of EV charging infrastructure to service MDHD commercial and light-duty vehicles (LDV), with a total of 53 charging ports for MDHD charging and 10 charging ports for LDV cars.

Greenlane recognizes the current infrastructure challenge and is laser focused on providing unmatched expertise, resources and high-quality services for decades to come, to ensure commercial ZEV fleets feel good about the road ahead.

Sincerely,

Andrea Pratt

Vice President Government & Utility Relations
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Feel Good About the Road Ahead

Greenlane Infrastructure is committed to supporting initiatives that drive sustainable and efficient infrastructure development. Our team has carefully analyzed the proposed concepts for the California CFI Program and has provided insights that we believe will contribute to the success of this project. Please find our comments below for your consideration.

1. Is the distribution of stations per corridor group and per corridor reasonable?

Greenlane Infrastructure, Inc. supports the California Energy Commission's (CEC) proposed grant application process of permitting applicants to submit a single application per site, and not requiring an applicant to apply to multiple sites along an entire corridor. The proposed application process allows market and industry leaders to select locations that best meet the applicant's business model for charging infrastructure deployment. Requiring applicants to apply to multiple sites in separate corridors could be counterproductive to the successful deployment of charging locations that support Medium- and Heavy-Duty (MDHD) electric vehicles (EV). Flexibility can lead to more strategic and efficient deployment of charging infrastructure, accelerating the adoption of MDHD EVs. Also, the administrative burden on the applicants is reduced as applicants can move forward with sites that have already been evaluated for success.

2. Should there be a minimum distance between stations?

The current battery range of MDHDs available on the market today is between 100-300 miles. This range of travel is expected to increase as MDHD technology improves over the coming years. Given the current range of vehicles is limited to local and regional distribution routes, there should **not** be a minimum distance between stations as areas with high traffic (i.e. near ports or distribution centers) may require multiple site locations in the same geographical area (i.e. Inland Empire) to serve the growing volume of ZEVs. Including arbitrary distance requirements too early can result in a mismatch between funded projects and near-term ZEV duty cycles. Maximum flexibility in site design and location is crucial in early years of ZEV deployment. Easy access (less than 5 miles) from major highways and convenient entry and exit points are best suited to accommodate long-haul operators. Any publicly accessible charging center must be accessible to all MDHD ZEV operators and offer driver amenities to accommodate vehicle charging times and mandated driver operating breaks.

3. Should any specific amenities be required? Should any be encouraged but not required?

Driver amenities to consider for publicly accessible chargers include facilities that have shelter including heating, ventilation, and air conditioning with access to clean restrooms, food and beverage options. A seating lounge area with available Wi-Fi. As MDHD ZEV ranges increase, drivers with longer hauls will benefit from additional amenities like showers and casual dining facilities, similar to existing truck stops today.

4. What is the optimal station capacity (MW for charging or kg for H2) for a public MDHD station?

The optimal EV charging station capacity of 3-20MW ensures that MDHD electric vehicles can be effectively supported both during initial deployment and future expansions. This power range is sufficient to meet the needs of MDHD electric vehicles, providing a robust foundation for their operation. Additionally, integrating grid management technology, reservation systems, and distributed energy resources can further enhance station capacity and resiliency. These measures ensure efficient utilization and adaptability of the charging infrastructure, supporting the growing demand for MDHD electric vehicles.

5. Is the requirement of 50% utility power capacity at station opening and 100% within 5 years of agreement execution reasonable?

A step approach to utility power capacity for MDHD EV charging deployment is encouraged as the step approach permits gradual scaling and adaptation to charging demand. The CEC should avoid requiring an arbitrary capacity percentage as a requirement to maintain flexibility given various real world scenarios. Site operators need enough power to operate on day one. That could be less than 50% total capacity, and it could also take longer than 5 years to reach full capacity given the upgrades needed. Partial capacity at less than 50% can be adequate to serve customers depending on traffic volume over time and technology deployed like energy management systems and battery energy storage solutions. Having flexibility to open a site with partial power is critical as the phased approach to energization is standard practice in the industry. Utilities can vary widely on local distribution capacity and upgrade timelines so arbitrary thresholds and timeline requirements should be avoided.

6. Is the \$18 million cap per awardee in public funds reasonable?

Given CEC's proposed max program budget of \$67 million (inclusive of match funds), Greenlane infrastructure, Inc. supports the proposed max funding limit per applicant of \$18 million. The \$18 million cap allows the available grant funds to be spread among numerous grant awardees. The funding cap strategy promotes successful deployment of MDHD EV infrastructure by disbursing available funds among numerous applicants. The success of the project is not dependent on a single applicant, encouraging a more resilient and diverse network of charging stations.

7. Should there be a per-site award cap on public funds?

No. When evaluating per-site award caps, the CEC should consider the cost differences for constructing MDHD EV infrastructure at existing operating locations (i.e., truck stops) compared to new ground-up EV infrastructure locations. Existing locations benefit from a lower cost of infrastructure development due to utility lines near the proposed site, paved paths of travel for vehicles, and structures to accommodate driver amenities. However, they may not serve the same amount of trucks and charging throughput as greenfield developments. New greenfield EV infrastructure locations need to construct all attributes of existing locations in addition to the EV charging equipment and supporting infrastructure.

Construction costs can be an order of magnitude higher for large greenfield sites versus expanding existing sites. The award caps should be based on the type of development required at each site. Existing operating locations should qualify for a lower amount of grant funding and new ground-up EV infrastructure locations should qualify for a higher grant award. Considering the level of construction at each site in evaluating award caps allows grant funding to better match the construction needs of the site. Charging locations that require less development are funded at a lower award amount, while sites requiring more development can receive higher award amounts.

8. Is the proposed restriction on additional points for projects in LI/DACs to pre-existing truck fueling sites a reasonable way to discourage creating additional truck traffic in these communities?

No. The strategic placement of new MDHD charging locations are in areas with existing MDHD traffic and permissible zoning, disproving the correlation that new stations will increase truck traffic in LI/DAC. Environmental impacts of conventional diesel MDHD in these areas are reduced as the zero-emission MDHD electric reduce local air and noise pollution.

Allowing market flexibility to decide and find supportive, reliable partners for MDHD EV charging deployment fosters successful growth and innovation. The approach would enable the identification of partners who support EV infrastructure.

9. How much time is needed to prepare applications?

To effectively prepare grant applications that meet CEC's goal of quickly deploying charging locations, an average of 3-4 months is typically needed. The key criteria CEC outlined to evaluate Project Readiness is dependent on third party entities outside the control of the applicant. There is a potential delay for the third-party entities to approve/review application required documents which should be factored into the planning process to ensure timely submission. The 3-4 month timeline for submitting an applications will allow the applicant time to gather required documents for the grant application. Extending the timeline to submit a grant application beyond the 3-4 month period will directly impact on the evaluation and award timelines, resulting in a delayed project start. This potential delay should be carefully considered to ensure timely submission and avoid setbacks in the project's overall schedule.

10. Any comments about any technical or feature requirements?

CEC needs to ensure interoperability between different charging networks as crucial, which involves adopting standardized communication protocols. Open Charge Point Interface (OCPI) can facilitate seamless communication between charging point operators and e-mobility service providers (EMSP). Standardized protocols for real-time data sharing are also essential. These protocols allow for accurate and timely information about charger availability, status, and pricing, which can be shared with third-party apps to improve

customer experience. With these standards, the CEC can ensure a more reliable and efficient charging infrastructure for MDHDs, promoting mass adoption of the new technology. However, considering OCPI alone is not enough for reservations at charging stations as OCPI does not support reservations. Greenlane utilizes a suite of API to enhance the reservation system that provides a robust and intelligent reservation system to be implemented in any ecosystem.

11. Beyond being open to the general public, what guidance should be included for reservation systems? Interoperability is a primary interest.

The CEC should permit reservation systems for MDHD electric vehicle charging. A reservation system for MDHD electric truck operators increases accessibility, regardless of their fleet size or technological capabilities. An ideal MDHD truck charging reservation system must guarantee charger availability and power delivery while providing schedule flexibility for delays, maximizing both fleet uptime and infrastructure utilization.

To accommodate the MDHD fleets that will need access to chargers, a guaranteed and opportunity charge scenario must be allowed. A balanced approach that incorporates models supporting reservation systems and first-come, first-served is beneficial to MDHD electric vehicle operations. The reservation systems are crucial for managing utility demand, reducing congestion, and ensuring user convenience and certainty by allowing fleets to reserve charging sessions in advance and plan their routes accordingly. This charging certainty is beneficial in planning long-haul trips, guaranteeing charging availability at points along the route, and planning driver breaks.

Also, reservation systems optimize grid capacity allowing grid and site operators to predict and manage energy loads more effectively and avoid expensive peak demand periods that get passed to customers. These steps increase grid stability and security.

The first-come, first-served model provides flexibility and freedom for freight travelling along varied delivery routes. Publicly accessible, first-come, first-served charging stations ensure all fleets have access to charging infrastructure, regardless of their ability to plan in advance. Integrating both reservation systems and first-come, first-served models, the CEC can create a flexible, efficient, and reliable charging network that serves the needs of commercial fleet customers. Greenlane believes there should be a mix of chargers where some serve reservations, and a portion are left for opportunity charging to ensure all parties get served. Please note this also requires having capacity – meaning more chargers, lanes and power.