

Medium- and Heavy-Duty Electric Vehicle Charging Station Installation Guide



Electric Vehicle Charging Station Permitting Guidebook

This guide is intended to provide an overview of, and unique considerations for, the charging station installation and permitting process for medium- and heavy-duty electric vehicles and equipment (M&HD EVs). Please review the [Electric Vehicle Charging Station Permitting Guidebook](#), which this guide is modeled after, as well as the resources linked in each section, for more comprehensive information.

PLANNING & SITE SELECTION

- ◆ Early communication among project partners to define timelines is critical for timely project execution—projects often take many months. Partners to engage early include funding entities, local permitting jurisdiction, utility, vehicle and charging station manufacturers, property owners or landlords, site operations and maintenance representatives.
- ◆ Plan ahead so stations will be ready when the vehicles arrive. The electrical contractor, charging station vendor, and utility can advise on estimated timelines, which may vary depending on project size and complexity. The permitting jurisdiction and utility should approve the final design to expedite permitting.
- ◆ Most existing M&HD EV charging stations are at private facilities. The planning process should include how site design and charging will align with or impact current operations, how charging needs compare to existing electrical infrastructure (e.g., assessing need for transformer or panel upgrades, submetering options, etc.), and whether the charging design and energy capacity is scalable for future expansion of the EV fleet. Project managers should consider energy needs and solutions for current and expanded operations, which can highlight system-efficiency and cost-saving opportunities, such as through charge management and distributed energy resources. Energy and charging needs will depend on EV specifications (e.g., battery capacity, charge rate, port type) and usage patterns (inform charger amount and location).
- ◆ Resources: [GNA Charging Guidebook for M&HD Commercial Fleets](#), [CTE Guidebook for Deploying Zero-Emission Transit Buses](#), [CALSTART Electric Truck & Bus Grid Integration](#), [CALSTART Funding Finder](#)

PERMITTING

- ◆ AB 1236 (Chiu, 2015), codified in Government Code [Section 65850.7](#), California's permit streamlining law, applies to all charging station installations, including stations serving M&HD EVs. Therefore, local jurisdictions are required to enact and implement a streamlined permitting process for charging station applications for M&HD EVs or apply the same process that exists for light-duty EV charging stations.
- ◆ Jurisdictions are required by AB 1236 to publish a checklist of all permit requirements on their website. Project proponents should communicate with local permitting jurisdictions to ensure application compliance with building, electrical, accessibility, and any health and safety (like fire safety) requirements.
- ◆ Resources: [EV Charging Station Permit Streamlining Map, Scorecard, and Best Practices](#)

ACCESSIBILITY

- ◆ Accessibility requirements apply to public accommodations, including privately-owned facilities that are open to the public, commercial facilities, and publicly-owned facilities. EV charging station accessibility requirements are included in the California Building Code and summarized in the [Guidebook](#).
- ◆ Accessibility requirements provide an exception for privately-owned facilities that are not open to the public and intended for use by a designated vehicle or driver. Depending on the use, this exception may apply to charging stations serving light-, medium- and heavy-duty vehicles and equipment.
- ◆ Resources: [Division of the State Architect EV Charging Accessibility Reference Materials](#)

CONNECTING TO THE GRID

- ◆ Project proponents should involve their local utility early in the planning process to understand the timeline for interconnection and delineation of responsibilities, which vary by utility territory. Secure a single or lead utility contact to help with project efficiency. Grid connection processes for the 5 largest utilities in the state are summarized in the [Guidebook](#).
- ◆ Your utility may offer funding, rebates, or other assistance with charging installation projects.
- ◆ Resources: Southern California Edison [Fuel Savings Calculator](#), Pacific Gas & Electric [Fuel Savings Calculator](#), California Air Resources Board [Battery-Electric Truck and Bus Charging Cost Calculator](#) and [Low Carbon Fuel Standard Credit Opportunities](#), CalETC [Utility & Customer M&HD Electrification Process Summary](#). To evaluate rate options and for the most up-to-date information, contact your utility.

CONSTRUCTION, COMMISSIONING & OPERATION

- ◆ Before a station can be used, it must be assigned an address and pass final inspection(s) by the local permitting jurisdiction and utility. The local jurisdiction and utility processes should be coordinated to mitigate delays, reduce inspections, and expedite site energization and commissioning.
- ◆ Specified commercial chargers, such as public stations, must comply with Division of Measurement Standards' [Electric Vehicle Fueling System Regulations](#) and California Air Resources Board's [Electric Vehicle Supply Equipment Standards Regulations](#).
- ◆ Resources: Center for Sustainable Energy's [EV Charging Station Installation Guidelines: Residential & Commercial Locations](#), [State-Funded Infrastructure Installation & Training Requirements FAQ](#)

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