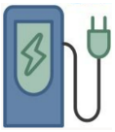

CONSIDERATIONS TO INFORM ELECTRIC VEHICLE CHARGING STATION DECISION-MAKING

This resource is intended to better inform the initial decision-making process for all types of electric vehicle (EV) charging station installations at state facilities, including public, workplace, and fleet. LBE staff and members of the Green Fleet Committee are available to assist state entities in planning and mobilizing EVSE installation, which will significantly vary by site. To find staff contacts and get started, visit the LBE administration webpage.

The following are primary topics of consideration followed by recommended state entity task(s):

Site Identification	Determine the location(s) where installing EV charging stations makes sense to help determine available funding and charging station types. Location(s) may be selected based on agency fleet vehicle location, frequency of the site's use by the general public, funding availability, etc.
Intra- and/or Interagency Use	Identify opportunities for shared fleet charging among sites from the same agency or between multiple agencies; visit the LBE webpage to see an interactive map of state-sited charging station locations. LBE staff can assist state entities in identifying potential charging hub locations and further inform the siting of new stations.
Charging Station Users	Identify whether charging stations are intended for public use, employee use, or fleet use to help determine the appropriate charging station type and available grant funding.
Electric Utility Funding Availability	Verify availability of utility financial support; depending on the site's utility service provider, there may be funding for EV charging infrastructure work (e.g., electrical service). Note that funding may differ depending on charging station access and intended users (e.g., public vs. fleet).
Specific Station Locations and Proximity to Power	Once a site is selected, determine specific location(s) for EV charging to help vendors determine the necessary infrastructure and installation work. Site charging stations in areas that are close to buildings or existing electricity service to help to reduce the costs associated with infrastructure work whenever possible.
EV Charging Station Type	Identify the type of EV charging station(s) to be installed. The type or level of charger installed often depends on the use case and existing facility infrastructure; in most use cases, Level 2 chargers are well-suited for state government applications. However, there may also be cases where Level 1 charging meets the site needs (e.g., limited vehicle miles driven per day, smaller battery sizes, cost, or electrical service constraints) or cases where DC fast charging is the right fit (e.g., sites where the public is visiting for short amounts of time or satellite agency locations where fleet vehicles are only onsite for limited hours per day). Note that not all EVs have a DC fast charging port; see the LBE EV Charging Quick Guide for more information.
Networked vs. Non-Networked Stations	"Smart" or networked chargers are those that share data connections (e.g., Wi-Fi-enabled), allowing the owner or operator to monitor and manage use of the equipment, and sometimes interfacing with the vehicles to optimize charging. Non-networked chargers are typically less expensive, acting as a simple outlet for EVs to plug into, and may provide a sufficient solution in some use cases. When pursuing networked stations, state entities should request clarification from vendors in advance to ensure associated terms and conditions can be met and stations can be utilized once installed.

Accessibility	State facilities should take steps during the planning process to make EV charging accessible and usable by persons who have disabilities. The Commonwealth of Massachusetts has obligations under Title I and II of the Americans with Disabilities Act (ADA) to ensure all public programs, services, and activities are accessible to persons with disabilities. To meet this mandate, state entities must ensure that at least 5% of the site's public and/or workplace EV charging parking spaces, but not less than one such space, be designed accessible to persons with disabilities. These EV charging stations and associated parking spaces must comply with the Massachusetts Architectural Access Board's rules and regulations (521 CMR 23) and/or the 2010 ADA Design Standards. While fleet-only parking areas are not required to design EVSE placement for accessibility unless requested through employee accommodation(s), state entities may wish to implement accessible design for future use. It is recommended that state facilities ensure 5% of parking spaces or a minimum of one fleet charging station are designed accessible for persons with disabilities, and at least for this time, not reserved for individuals with disabilities with an above ground sign. For state new construction or major renovation projects that include fleet parking or parking areas with mixed use (e.g., fleets plus public and/or employee parking), the applicable code accessibility requirements shall apply. Accessible site layouts should consider connector and receptacle heights, special curb cutouts, charging cord placement, adjacent pedestrian circulation areas, and loading areas to ensure accessibility for those with disabilities and further facilitate access in difficult weather conditions. Adequate EVSE protection, such as concrete-filled steel bollards, should be used where warranted. Accessibility strategies for station placement will largely be site-specific and therefore it is advisable that a qualified, design professional review all planned installation locations for code-required factors. For more information and diagrams, please see the MassEVIP accessibility requirements; facilities that are owned or managed by DCAMM should consult the DCAMM Statewide Accessibility Program.
Usage Fees	Assess fee structure for charging station use; chargers installed for use by employees and/or the public should be networked to enable the collection of charging fees. See the LBE Guidance for Publicly Accessible EV Charging Infrastructure at Massachusetts State-Owned Facilities for more information on how to calculate and collect usage fees for EVSE available to the public.
Signage	All EV charging stations must be accompanied by adequate signage that effectively identifies specific locations of such stations. Directional signage to the EV charging station location should be installed, starting at the entrance of the parking area. Parking spaces designated for plug-in EV use only should be marked clearly through permanent, visible signage. As appropriate, signage can communicate time limits, eligible users, user fees, and any other applicable rules. Sites may consider painting the entire EV parking space (generally green) and/or marking the pavement with an EV charging symbol. The MassEVIP incentive programs include specific signage requirements for installations leveraging those funds.
Non-Traditional EV Charging	Consider whether non-traditional EV charging technology may suit the needs of sites with unique attributes, such as those that may not have ready access to electrical power. Examples of technologies that are available on statewide contract VEH102 include solar and battery-powered off-grid chargers that fits into standard parking spaces and portable chargers that can be moved from site to site.

Future Planning

Throughout the planning and EV charging installation process, facilities should take future charging needs into account. This may inform decisions around charging locations, accessibility, signage, and more. While current site needs may warrant the installation of a small number of stations, it is strongly recommended that pre-wiring is installed to facilitate future EVSE as fleets electrify and public EVs become more commonplace.