

Incentives for Truck and Bus Charging Infrastructure

Design Choices and Lessons from Two State Programs

A key action that states can take to accelerate the transition to medium- and heavy-duty (MHD) zero-emission vehicles (ZEVs) is to offer financial incentives for purchasing and installing charging infrastructure. This fact sheet discusses the benefits of charging infrastructure incentives for MHD ZEVs and explores design options for states to consider when developing programs. Design decisions and lessons learned from two existing state programs – California’s Energy Infrastructure for Zero-Emission Commercial Vehicles Project (EnergIIZE) and Colorado’s Fleet Zero-Emission Resource Opportunity (Fleet-ZERO) – are highlighted throughout the fact sheet.

Where Do MHD ZEVs Charge?

MHD fleets and independent owner/operators seeking to electrify their operations need reliable access to charging. Fleets with MHD ZEVs that drive predictable routes that are less than 200 miles a day and return to a home-base or depot are best served by depot-based charging, whether for their exclusive use or shared use with other fleets. For example, many delivery vans and trucks, as well as transit and school buses, drive routes shorter than 200 miles per day and can rely exclusively on depot charging. Trucks that drive longer and/or more diverse routes, but still return to a depot, may also be able to rely on depot charging, or a combination of depot and public charging.

While many fleets can meet their charging needs at private depots, some will need access to public or semi-public charging facilities. Examples include fleets with tractor trailers traveling longer routes along highways, and smaller fleets and independent owner operators without access to private depots.

Why Offer Infrastructure Incentives?

Charging infrastructure incentives help reduce the total cost of electrification for MHD fleets and accelerate the pace at which they can transition to zero-emission operations.

Fleet owners typically incur the upfront costs of purchasing and installing depot charging equipment and bringing adequate power to it (e.g., costs for switch gears, wiring and conduit, electrical circuit breakers, etc.) at the same time that they incur the cost of purchasing ZEVs, all prior to benefitting from any operational cost savings. Infrastructure incentives can provide critical assistance for mitigating these initial investment costs, especially in an early market when advanced technologies are most expensive. In addition, infrastructure incentives can support innovative charging solutions and emerging business models, such as charging as a service (CaaS), that eliminate the need for fleets or truck owners to invest in and operate depot charging or wait for adequate public charging, thereby easing the transition to MHD ZEVs.

Program Design

States standing up new infrastructure incentive programs will face many decisions about how to structure and target incentives and design them to work well for diverse program participants.

Gathering Stakeholder Input. Early engagement with fleets and other key stakeholders can help guide design decisions. California and Colorado employed strategies such as issuing requests for information, organizing focus groups and public webinars, conducting surveys, and inviting public and written comments on proposed program

designs. Colorado also completed an MHD charging infrastructure study, which included interviews with stakeholders and incentive program staff in other states (see Resources).

Program Scope and Structure. Launched in 2023, Colorado's Fleet-ZERO program began by offering a flexible grant funding lane for depot, semi-public and public charging, as well as CaaS, with the goal of supporting a range of approaches to meet immediate charging demand. The Colorado Energy Office, the administering agency, is now designing a more targeted funding lane that will incentivize the deployment of MHD charging hubs for vehicles that travel longer distances on freight corridors, and/or that lack access to depot charging. To inform its design, the agency is conducting [an MHD charging hub network analysis](#) that identifies charging needs and priority infrastructure locations for these vehicles.

Based on input received from municipal fleets and small businesses, Fleet-ZERO launched with incentives for both light-duty and MHD fleet vehicle charging. Offering one program enables fleets with both types of vehicles to streamline the work involved in securing incentives, execute comprehensive projects to retrofit facilities, and maximize the utilization of new charging infrastructure.

Launched in 2021, California's EnergIZE program funds charging and hydrogen fueling projects for MHD ZEVs. The California Energy Commission, which oversees the program, uses funding set-asides to ensure access to incentives for MHD fleets with specific vocations. For example, a drayage set-aside reserves funding for fleets that move freight between California's ports and distribution hubs, and transit and school bus set asides reserve funding for public bus fleets. Having separate funding streams allows the application processes, timelines, and technical assistance

to be tailored to the unique needs of these fleets.

In addition to funding set-asides for different types of fleets, EnergIZE also uses dedicated funding lanes. Initially, there were four funding lanes dedicated to specific kinds of projects: publicly accessible charging infrastructure, hydrogen fueling infrastructure, equity-qualified projects, and a fast track lane for commercial fleets that had already purchased a MHD ZEV or could furnish a purchase order. The fast track lane was especially popular and often fully subscribed shortly after it opened for applications.

While funding lanes can be beneficial for tailoring incentives, the California Energy Commission concluded that having too many introduces complexity for applicants as they seek to understand the correct lane for their project and associated requirements. In early 2025, the program consolidated the fast track, hydrogen fueling, and public charging funding lanes into a single fast track lane. In 2026, the program plans to incorporate the equity funding lane and open the one consolidated lane two times per year with longer application windows. These changes are expected to help fleets navigate the program more easily.

Eligibility. Maintaining broad eligibility for different types of applicants positions infrastructure incentive programs to enable the broadest possible ZEV adoption and support new and emerging business models that can increase charging access. For example, eligible applicants for Colorado's Fleet-ZERO grants include not only commercial and public fleets and independent owner operators but also charging infrastructure providers. Project types can include fleet-owned depot charging for exclusive use by one fleet or shared use by several fleets, hubs operated by CaaS providers and offered to one or multiple fleets under specific utilization or access agreements, semi-

public charging managed with a reservation system, and fully public charging, or combinations thereof. Similarly, California's EnergIZE program offers grants to different types of applicants using different business models to provide charging.

Standard and Rolling Applications. Some fleets benefit from predictable timelines for submitting applications, while others benefit from more flexibility. To provide predictability, Colorado's Fleet-ZERO opens application windows for standard grants twice a year – in spring and fall – for 30 to 60 days. This works well for larger projects and fleets with extended planning horizons for replacing vehicles.

After consulting with fleets during program design, however, agency staff concluded that some fleets with constraints such as budgeting and vehicle acquisition timelines and/or limited staff capacity (for example, small business and municipal government fleets), would benefit from being able to choose the timing of their applications. Therefore, Fleet-ZERO introduced a rolling application open to qualifying entities year-round for grants of up to \$50,000 for smaller-scale infrastructure projects. "Qualifying entities" include certified disadvantaged-, minority-, small-, veteran- and women-owned businesses, government agencies, non-profits, schools, and tribal governments and organizations.

One caution offered by Colorado program staff is that budgeting for rolling applications can be more challenging than for standard grant rounds with pre-determined total funding levels.

Ensuring Infrastructure Project Readiness. California's EnergIZE and Colorado's Fleet-ZERO grant programs employ a number of design options to target and accelerate infrastructure deployment where and when it is needed. For example, EnergIZE applicants for drayage and transit set-aside funding must

demonstrate that they have received, applied for, or plan to apply for a MHD ZEV purchase incentive such as those offered by [California's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project](#).

In addition, applicants to the new EnergIZE consolidated fast track lane and to Fleet-ZERO are evaluated based on demonstrated readiness to proceed with charging projects, including information about the vehicles that will utilize the infrastructure and progress made toward developing site plans and securing permits. Projects that demonstrate the highest level of readiness are prioritized for funding.

New project extension and cancellation requirements are also being added to California's EnergIZE program to limit how long fleets can hold incentives before purchasing and commissioning charging stations. This will help ensure that funding does not remain unspent for years when other fleets are ready to use it more quickly.

Incentive Enhancements. Offering enhanced incentives for certain applicants is a way to further lower cost barriers and increase equitable access to funding. Options include higher caps on incentives per charging port or total funding per applicant, reduced match requirements, prioritized scoring, and more flexible eligibility for funding lanes. EnergIZE enhances incentives for small fleets and fleets operating in designated low-income and disadvantaged communities in California. Fleet-ZERO offers enhanced incentives to all "qualifying entities" as described above, and prioritized scoring for projects located in and fleets substantially operating within disproportionately impacted communities.

Technical and Planning Assistance. Another important consideration is how to support incentive applicants (or potential applicants) in understanding the total cost of ownership for

MHD ZEVs and infrastructure, the full suite of government and utility incentives available, and best practices for planning for and installing infrastructure. EnerGIIZE applicants in California can access online project planning tools through an [Infrastructure Readiness Center](#), attend special workshops and webinars, and participate in [Cal Fleet Advisor](#). This [fact sheet](#) provides information about Cal Fleet Advisor and similar programs in Massachusetts and New Jersey. In Colorado, eligible applicants for Fleet-ZERO grants can obtain help from [Recharge Coaches](#), a free technical assistance program offered by the Colorado Energy Office.

Coordinating Infrastructure and Vehicle Incentives

Interagency coordination can help fleets plan for and secure charging infrastructure and vehicle purchase incentives more efficiently. In Colorado for example, program staff from the Energy Office and from the Department of Public Health and Environment, which administers vehicle incentives through the [Clean Fleet Vehicle and Technology Grant Program](#), coordinate to complement these two separate program offerings. Staff from both agencies work to establish funding criteria, develop application questions, and host informational webinars, while also participating in cross-agency program evaluation committees. Program staff also work to align the dates for their respective grant applications so fleets can plan for and apply to both incentive programs at similar times. Coordinating programs run by separate agencies can be challenging, especially when they have different funding sources, governance structures, or eligibility requirements. However, synchronization can

greatly reduce complexity and extra work for fleet applicants.

Program Administration

State incentive programs can rely on agency staff or hire a third-party administrator to perform day-to-day management.

The California Energy Commission uses a third-party administrator for EnerGIIZE. This reduces the agency staff time needed to review applications and manage applicant communications. However, agency staff coordinate closely with the third-party administrator, especially when reviewing input from participating fleets about application processes, assessing program outcomes, and planning for improvements.

Fleet-ZERO is run entirely by the Colorado Energy Office. A few benefits of this approach are that it enables staff to regularly evaluate and implement program improvements and to engage directly with applicants, a process that informs broader ZEV policy and initiatives.

Program staff in both California and Colorado emphasize their programs work best when the grant process is predictable and clearly communicated, and incentive applicants have regular opportunities to provide feedback.

Additional Information



[EnerGIIZE program website](#) and [implementation manuals](#)



[Fleet-ZERO program website](#) and [grant application guide](#)

[Medium- and Heavy-Duty Charging Infrastructure in the State of Colorado.](#) (Di Filippo et al. Atlas Public Policy, 2023.)

This fact sheet is part of a fact sheet series on designing and administering state incentives for medium- and heavy-duty zero-emission vehicles and charging. The complete series can be found [here](#).