

Chapter 10: INFRASTRUCTURE

Senate Bill 513 (Beall, Chapter 610, Statutes of 2015) provides the California Air Resources Board's (CARB) Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer Program) the ability to incorporate infrastructure projects into its program. It authorizes the funding of projects that enable the deployment of alternative, advanced, and cleaner technologies to support the State's air quality goals. Specifically, Health and Safety Code section 44281(c) gives CARB the ability to provide funding toward the installation of fueling or energy infrastructure to fuel or power covered sources. Statute does not require infrastructure projects to meet a cost-effectiveness threshold.

This chapter provides project criteria for selecting and funding infrastructure projects that enable emission reductions in meeting State and local air quality goals. All infrastructure projects must be used to fuel or power a covered source as defined by Health and Safety Code section 44275(a)(7). -These covered sources include, but are not limited to, on-road, off-road, agricultural, and marine vessel emission sources.

A. Funding

Air quality management districts or air pollution control districts (Air Districts) determine project priority and select projects funded within their region.

**Table 10-1
Maximum Percentage of Eligible Cost for Moyer Program Infrastructure Projects**

Maximum Percentage of Eligible Cost ^(b)	Infrastructure Projects
50%	All Projects
60%	Publicly Accessible Projects
65%	Projects with Solar/Wind Power Systems ^(a)
75%	Publicly Accessible Projects with Solar/Wind Power Systems ^(a)
100%	Public School Bus Projects ^(a,c) — Battery Charging and Alternative Fueling

^(a) At least 50 percent of the total energy provided to covered sources by the project must be generated from solar or wind.

^(b) Additional 5% funding available to site-owners of heavy-duty truck parking facilities that provide communal parking opportunities (e.g., truck yards, truck depot, etc.)

^(c) Maximum Percentage for Public School Projects includes Solar/Wind Power Systems.

B. Eligible Projects

Eligible projects are those that provide fuel or power to a covered source, and include, but are not limited to, the following:

- 1. Battery Charging Station.** New, conversion of existing fueling stations, and expansion to existing ~~non-residential~~ battery charging stations. -(e.g. stations in priority populations, stations in multi-unit dwellings, workplace charging, direct current fast chargers along freeway roadway corridors, long-term charging at destination areas such as airports and shopping centers, and charging at distribution centers and warehouses). Refer to Appendix B for definitions to the terms mentioned above (e.g. new, conversion of existing, and expansion of existing).
- 2. Hydrogen Alternative Fueling Station.** New, conversion of existing fueling stations, and expansion to existing hydrogen ~~and natural gas~~ fueling stations.
- 3. Stationary Agricultural Pump Electrification.** -Agricultural pPump must be funded by the Carl Moyer Program electrification.
- 4. Shore Power.** Shore-side electrification or electrical power being provided by either the local utility or by distributed generation to a watercraft at berth.
- 5.** Additional projects may be considered on a case-by-case basis ~~such as residential battery charging stations for low income and multi-unit dwellings, as well as (e.g. infrastructure for transport refrigeration units and truckstop electrification).~~ -Please contact CARB Moyer staff for further guidance on these case-by-case projects.

To be eligible to partner with other funding sources or programs, the project must not be in progress, completed, nor invoiced and paid. The Air District must evaluate the co-funded project prior to approval and verify the co-funded project with CARB. All requirements of the Moyer program must be met for co-funded projects.

C. Eligible Applicants

Public and private entities are eligible to apply unless otherwise stated. Public entities include, but are not limited to, State, metropolitan, county, city, multi-county special district (e.g. water district), school district, university, and federal agencies and organizations. Private entities include, but are not limited to, private organizations and corporations. Out of State applicants are eligible to apply provided that the infrastructure is situated in California. Air Districts or other entities receiving administration funding through the program are not eligible.

D. Eligible Costs

Eligible costs are limited to the purchase and installation of the equipment for power delivery or fueling directly related to the infrastructure project. The eligible costs listed below must utilize commercially available technologies.

1. Eligible project costs include:

- (A) Cost of design and engineering, (i.e., labor, site preparation, Americans with Disabilities Act accessibility, signage).
- (B) Cost of equipment (e.g., charging/fueling units, electrical parts, energy storage equipment, materials).
- (C) Cost of installation directly related to the construction of the station.
- (D) Meter/data loggers.
- (E) On-site power generation system that fuels or powers covered sources (i.e., solar and wind power generation equipment).
- (F) Fees incurred pre-contract execution (i.e., permits, design, engineering, site preparation), license fees, environmental fees, commissioning fees (safety testing), and onsite required safety equipment.

2. Air Districts have the option to fund the following discretionary costs:

- (A) Federal, sales, and other taxes.
- (B) Shipping and delivery costs.
- ~~(C) Fees incurred pre-contract execution (i.e., permits, design, engineering, site preparation), license fees, environmental fees, commissioning fees (safety testing), and onsite required safety equipment.~~
- (C) ~~(D)~~ Consulting fees associated with the preparation of Environmental Assessment, Environmental Impact Statement, Environmental Impact Report, or other California Environmental Quality Act (CEQA) documents, etc.

E. Ineligible Costs

Ineligible costs include but are not limited to:

1. Existing station upgrade.
2. Fuel and energy costs.
3. Non-essential equipment hardware.

4. Operation cost (e.g., operational fees, maintenance, repairs, improvements, spare parts).
5. Extended warranty.
6. Insurance.
7. ~~Data collection and reporting.~~
7. ~~(8.)~~ Grantee administrative costs.
8. ~~(9.)~~ Travel/lodging.
9. ~~(10.)~~ Employee training and salaries.
10. ~~(11.)~~ Legal fees.
11. ~~(12.)~~ Real estate property purchases/leases.
12. ~~(13.)~~ Performance bond costs.
13. ~~(14.)~~ Construction management.
14. ~~(15.)~~ Storm water plan costs.
15. ~~(16.)~~ Security costs.
16. ~~(17.)~~ Testing and soil sampling.
17. ~~(18.)~~ Hazardous materials, including permitting, handling and disposal.

F. Project Eligibility Criteria

The minimum qualifications for infrastructure projects are listed below. All projects must also conform to the requirements in Chapter 2: General Criteria, and in Chapter 3: Program Administration. Participating Air Districts retain the authority to impose additional requirements to address local concerns.

1. General Criteria

- (A) The project must be permanently installed and located in California.
- (B) The project must comply with all applicable federal, State, local laws and requirements including environmental laws, and State building, environmental and fire codes. For instance, Air Districts may need to perform CEQA review and obtain approval prior to funding a project.

- (C) All publicly accessible infrastructure projects that include on-site power generation (e.g., solar, wind) and/or are publicly accessible, must be solicited and selected through a competitive bidding process that has been approved by the air district Board.
- (D) Work must be performed by a licensed contractors and/or electricians that meet all required licensing, certification, and statutory requirements for the eligible project type. CARB may request proof of compliance with any licensing, certification, and statutory requirements before performing any work on an eligible project.
- (E) For projects that contain Moyer Program funding for both infrastructure and engine replacement or repower within the same contract, only the cost of the engine replacement or repower will be considered when performing a cost-effectiveness calculation.
- (F) Publicly accessible stations must at a minimum be accessible to the public daily during regular business 24 hours a day or as many hours as allowed by local ordinance.
- (G) Equipment and parts must be new. Remanufactured or refurbished equipment and parts are not eligible.
- (H) Except for stationary agricultural pump projects, a completed Uniform Commercial Code-1 Financing Statement Form must be submitted by the air district to the California Secretary of State for infrastructure projects with a grant funding amount of \$50K or greater. The financing statement must list the air district as the secured party.
- (I) Low Carbon Fuel Standard (LCFS) credit generation associated with eligible activities is not prohibited by the Moyer statute.

2. Battery Charging Station

- (A) Chargers-Charging Equipment must be a level 2 ~~and or~~ higher to support non-residential stations.
- (B) Publicly accessible ~~light-duty~~ charging stations must use a valid and universally accepted charge connector protocol (e.g. Society of Automotive Engineers (SAE), CHAdeMO).
- (C) Charger Equipment must be certified by a Nationally Recognized Testing Laboratory (e.g., Underwriter's Laboratories, Intertek) located at <https://www.osha.gov/dts/otpca/nrtl/nrtllist.html>.
- (D) Equipment must have at least a one-year warranty.

3. Stationary Agricultural Pump Electrification. To be eligible for funding, infrastructure must directly power a zero-emission stationary agricultural pump funded by the air district with Moyer Program funds, including match (see Chapter 5 for specific criteria related to funding agricultural pumps).

4. Shore Power

- (A) Funding is available to install shore-side electrical grid-based power at a berth that receives visits solely by vessels not subject to the control requirements of CARB's Shore Power Regulation (Title 17, California Code Regs., section 93118.3.).
- (B) Shore-side projects meeting the eligibility criteria of the Goods Movement Program are eligible for Moyer Program funding only on a case-by-case basis. Moyer Program project funds cannot be co-funded with Proposition 1B Goods Movement Program funds.

5. Alternative Hydrogen Fueling Station. Equipment must have at least a three-year warranty.

G. Applicant Requirements

1. General Criteria

- (A) The applicant must be able to demonstrate to the Air District that the applicant can obtain all required land use permits from agencies needed to install and operate the station.
- (B) For a publicly accessible station, the applicant must provide a description of the geographic location, including an aerial map (i.e. satellite view from an internet-based map or city/county map) and specific street address of the proposed station.
- (C) Applicants must demonstrate that they either own the land on which the project will be located, or control it through a long-term lease, easement, or other legal arrangement, for the duration of the project life. For a proposed project where the land is not owned by the applicant, an executed lease agreement or letters of commitment lasting for the duration of the project life must be signed by property owners/authorized representatives and must be submitted with the application.
- (D) Applicants must be able to provide documentation that power or fuel is being, or will be, provided to the site (e.g., application, payment to the local utility company for power installation, or contract).

2. Shore Power

- (A) Applicants who own/operate at a terminal must submit a copy of the Initial Terminal Plan per Section (g) of CARB's Shore Power Regulation (Title 17, California Code Regs, section 93118.3). -All subsequent project reports to air districts must include a copy of the terminal plan in order to evaluate compliance with the project contract.
- (B) Only a port authority, terminal operator, or marine vessel owner may apply to receive Moyer Program funding for a shore power project.

H. Project Life

1. All projects must have a minimum project life of three years.
2. Maximum project life is 15 years, except stationary agricultural pump electrification projects which have a maximum project life of ten years.

I. Contract Requirements

1. General Criteria

- (A) Contracts must include anticipated usage in terms of projected throughput and/or number of vehicles that will be using the station for the term of the contract.
- (B) Contracts must require that the equipment be in operating condition throughout the contract term.
- (C) Contracts must specify that publicly accessible infrastructure projects must maintain a 95 percent uptime ~~successful charging rate~~ with 24/7 customer service available on site, via toll free telephone number. Contracts must also specify that if equipment is not functional, the grantee is responsible for ensuring that repairs are made and stations ~~are~~ is up and running within 48 hours. The grantee must notify air districts of any downtime beyond the 48 hours and work with air districts to ensure publicly accessible stations are operational.
- (D) For non-publicly accessible infrastructure projects, contracts must specify that if equipment is not functional, the grantee has 15 business days to report the problem to the air district and begin working with the air district promptly to ensure infrastructure equipment is operational.
- (E) Contracts must specify that, if during the project life the fuel/energy meter fails for any reason, the fuel/energy meter must be repaired or replaced as soon as possible and is considered a maintenance expense, therefore not an eligible cost.
- (F) Contracts must specify the maximum grant amount.

- (G) Contracts must identify milestone dates including project completion, invoice, and annual reporting dates.

2. Battery Charging Station

- (A) Contracts must include the number of electric vehicle supply equipment (EVSE) ports and charging units connectors.
- (B) Contracts must include that grantee must will report all publicly accessible battery charging station installations to the Department of Energy Alternative Fuel Data Center located at <http://www.afdc.energy.gov/locator/stations/>

- 3. Alternative Hydrogen Fueling Station.** For publicly accessible hydrogen fueling stations, contracts must include that grantee must will register and report to the Station Online Operational Status System (SOSS) maintained by the California Fuel Cell Partnership (www.cafcp.org). In addition, grantee must abide by the requirements of the reporting system. For additional information about the SOSS requirements, please contact the California Fuel Cell Partnership.

J. Pre-Inspection

1. General Criteria

- (A) Projects must follow the pre-inspection sections which include requirements, compliance certification, record keeping, and inspection after contract requirements in Chapter 3: Program Administration. Participating air districts retain the authority to impose additional requirements to address local concerns.
- (B) The minimum documentation requirements that must be collected and be included in the pre-inspection form include: are listed below:
 - a. Name of inspector
 - b. Date of inspection
 - c. Name and contact information of land/site owner
 - d. Location (address/GPS coordinates)
 - e. Photo documentation of land/site. The district must also take photos of the existing equipment (if applicable). At the minimum, the photos must include equipment, product label, manufacturer name, date of manufacturer, model number, and serial number.

- f. Any other information regarding the land/site needed to uniquely identify, establish eligibility, populate the Clean Air Reporting Log (CARL) dataset, and ensure contract enforceability.

K. ~~J.~~ Post-Inspection

1. General Criteria

- (A) Air districts must verify and document that each infrastructure project is operational. Inspections must include verification of operation by connecting a vehicle or equipment to the charging or fueling station, or in the case of an agricultural pump or shore power project, by connecting to the electrical grid. For projects that incorporate solar or wind power, the inspection must verify that infrastructure has been installed and connected to the power generation equipment (i.e., solar panels or wind turbines). Air districts may be exempted from this requirement if the grantee does not own a vehicle/equipment, and no vehicle/equipment can reasonably be obtained for the inspection. Air districts must document such instances and obtain other types of verification that the infrastructure is capable of dispensing fuel/electricity, or in the case of an agricultural pump or shore power project, capable of being powered by the electrical grid.
- (B) Air district must take photos of the equipment and keep photos in the project file. -At the minimum, the photos must include equipment, product label, manufacturer names, date of manufacture, model number, and serial number. For a battery charging station, also include input and output voltage and amperage.

- ~~2. **Battery Charging Station.** Air district must document the following: Name of manufacturer, serial number and date of manufacture, amperage/voltage, and equipment recharge rate.~~

L. ~~K.~~ Invoice and Payment

A project may be considered for final payment once the necessary infrastructure has been installed and connected to the power generation equipment (i.e. solar panels, wind turbine) and/or electricity grid and has been demonstrated to the air district that it is fully operational during a post-inspection.

M. Data Collection and Annual Reporting

- 1. Solar or Wind Power Generating Equipment.** For infrastructure projects that incorporate solar or wind power generating equipment, the grantee must annually provide to the air district the amount of electricity generated (e.g., - kilowatt-hour) from the solar or wind power generating equipment for the duration of the project life.

2. Battery Charging Station. Grantee must annually provide to the air district the following data for the entire project life:

- (A) Qualitative description of public and private uses.
- (B) Annual usage per charger (e.g., kilowatt-hour) ~~and the number of plug-in events.~~
- (C) Any scheduled or unscheduled downtime, including duration of downtime and causes of downtime.

3. Stationary Agricultural Pump Electrification. Grantee must annually provide to the air district the following data for the entire project life:

- (A) Annual usage (e.g., kilowatt-hour) using an energy meter.
- (B) Episodes of electrical service interruption by the local utility company.

4. Shore Power. Grantee must annually provide to the air district the following data per berth for the entire project life:

- (A) Total ship visits utilizing berth and ship visits utilizing program funded equipment.
- (B) Annual usage (e.g., kilowatt-hour).
- (C) Episodes of electrical service interruption by the local utility company.

5. ~~Alternative Hydrogen~~ Fueling Station. Grantee must annually provide to the air district the following data for the entire project life:

- (A) Annual usage (e.g., kilograms, standard cubic feet).
- (B) Any scheduled or unscheduled downtime, including duration of downtime and causes of downtime.

APPENDIX B: DEFINITIONS

Competitive Bidding Process: ~~For Moyer Program purposes, the~~ process by which an air district and/or applicant competitively selects publicly accessible infrastructure projects using two or more bids, or the process by which an Air District competitively selects publicly accessible infrastructure projects. -The process, including selection criteria, must be outlined in the Air District solicitation, and approved by the Air District Board.

Connector: A connector is what is plugged into a vehicle to charge it. Multiple connectors and connector types (such as CHAdeMO and CCS) can be available on one EVSE port, but only one vehicle will charge at a time.

Conversion of Existing Station: Infrastructure projects in which an existing nonalternative fueling station (i.e., diesel, gasoline, or natural gas) is converted to an alternative hydrogen fueling or battery charging station for hydrogen or natural gas.

Covered Source: On-road vehicles, off-road non-recreational equipment and vehicles, locomotives, marine vessels, agricultural sources of air pollution as defined in Section 39011.5, and, as determined by the State Board, other categories necessary for the State and air districts to meet air quality goals (H&SC § 44275(a)(7)).

DC fast charger: A unit for 200–480V Direct-Current (DC) charging up to 200 amps with a typical output from 50 kW and 350 kW, using an off-board charger that connects directly to the vehicle's battery. Also called DC Level 1 and DC Level 2.

EVSE Port: An EVSE port provides power to charge only one vehicle at a time even though it may have multiple connectors. The unit that houses EVSE ports is sometimes called a charging post, which can have one or more EVSE ports.

Existing Station Upgrade: Improvements to a battery charging or alternative hydrogen fueling station without increasing the output capacity.

Expansion to Existing Station: Infrastructure projects that increase the amount of fuel/energy throughput or capacity to fuel/charge equipment/vehicles at current alternative hydrogen fueling and battery charging stations.

Extended Warranty: Any warranty purchased to extend the time period for coverage in addition to the standard warranty provided by the manufacturer.

Investor-Owned Utility: A business providing utility services such as electricity, natural gas, telephone and water services, that is managed privately rather than as a function of a government or public cooperative. Examples are Pacific Gas and Electric, Southern California Edison, and Sempra Energy.

Level 2: Electric vehicle supply equipment for connection to an on-board vehicle charging system, with 208V–240V alternating-current (AC) charging up to 80 amps.

Nationally Recognized Testing Laboratory: Is a private-sector organization that the Occupational Safety and Health Administration (OSHA) has recognized as meeting the legal requirements in 29 CFR 1910.7 to perform testing and certification of products using consensus-based test standards.

New Station: Construction of a new battery charging or ~~alternative~~ hydrogen fueling station where there is currently no station.

Priority Population: Priority populations include disadvantaged communities, low-income communities, low-income households and updates to the definition in accordance with the Funding Guidelines for Agencies that Administer California Climate Change Investments.

Public Entity: -The State of California, a public university or college, a county, city, district, public authority, public agency, public corporation, another State government, the federal government, or any other subdivision or agency of a State government or the federal government.