CALIFORNIA ENERGY COMMISSION

CALIFORNIA NATURAL RESOURCES AGENCY

California Energy Commission

STAFF REPORT

Localized Health Impacts Report

Projects Awarded Funding Under Solicitation GFO-23-603 — Implementation of Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure Blueprints

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California Energy Commission

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PREFACE

This Localized Health Impacts Report (LHI Report) assesses the local health impacts from projects proposed to receive Clean Transportation Program (CTP) or similar funding. Preventing or minimizing health risks from pollution is vital in any community, but especially in those that are at high-risk due to preexisting poor air quality and other factors. Environmental justice (EJ) communities, low-income communities, and minority communities are considered the most impacted by any project that could increase air pollution. Therefore, they are considered "high-risk communities." This LHI Report:

- Identifies proposed projects located in high-risk communities.
- Analyzes the potential health impacts to communities from project-related emissions or pollution, based on information submitted by the project awardees.
- Describes the plans for community outreach for each project.

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007), which created the CTP, also directed the California Air Resources Board (CARB) to develop guidelines to ensure the CTP improves air quality. CARB's *AB 118 Air Quality Guidelines*, approved in 2008, are published in the California Code of Regulations (CCR), Title 13, Motor Vehicles, Chapter 8.1. Those guidelines require the CEC to issue LHI Reports (13 CCR Section 2343):

"(6) Localized health impacts must be considered when selecting projects for funding. The funding agency must consider environmental justice consistent with state law and complete the following:

"(A) For each fiscal year, the funding agency must publish a staff report for review and comment by the public at least 30 calendar days prior to approval of projects. The report must analyze the aggregate locations of the funded projects, analyze the impacts in communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, and identify agency outreach to community groups and other affected stakeholders.

"(B) Projects must be selected and approved for funding in a publicly noticed meeting."

In addition, the CEC issues LHI Reports for certain projects that are similar to CTP projects but do not receive CTP funding.

The CEC publishes this LHI Report at least 30 days before approving projects at a publicly noticed meeting. This report includes projects that may require a conditional-use permit, discretionary permit, or California Environmental Quality Act (CEQA) review. The CEC interprets "permits" to suggest discretionary and conditional-use permits, because they require a review of potential impacts to communities and the environment before issuance. Since ministerial-level permits do not review public health–related pollutants, CEC staff does not assess projects requiring only ministerial-level permits in this report.

ABSTRACT

This Localized Health Impacts Report describes the potential health impacts to communities from projects seeking California Energy Commission (CEC) funding under Grant Solicitation GFO-23-603. This grant initiative will implement zero-emission vehicle charging or hydrogen refueling infrastructure projects, or both, developed and identified in the final blueprint planning documents resulting from GFO-20-601, "Blueprints for Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure." Under California Code of Regulations Title 13, Section 2343, this report is available for public comment for 30 days before projects can be approved at a publicly noticed business meeting.

CEC staff has proposed five projects for Clean Transportation Program or similar grant funding awards under Solicitation GFO-23-603. Based on project site information provided by the awardees, four of the five communities (Gilroy, Lebec, Long Beach, and Los Angeles) where these projects are located are considered high-risk communities. Staff does not anticipate a net increase in the pollution burden for the communities where these projects are located.

Keywords: Air pollution, California Air Resources Board (CARB), Assembly Bill (AB) 118, California Environmental Quality Act (CEQA), electric vehicle (EV), electric vehicle supply equipment (EVSE), environmental justice (EJ) indicators, Environmental Justice Screening Method (EJSM), localized health impacts (LHI)

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EXECUTIVE SUMMARY

The California Energy Commission's (CEC's) Clean Transportation Program provides funding to support innovation and accelerate the development and implementation of advanced transportation and fuel technologies. The CEC also provides funding from programs that are similar to but separate from the Clean Transportation Program. An example of a similar program is the funding described in Section 74 of the Budget Act of 2021 (Senate Bill 129, Skinner, Chapter 69, Statutes of 2021).

Under California Code of Regulations Title 13, Section 2343, this Localized Health Impacts Report describes the electric vehicle charger and hydrogen refueling station projects proposed for funding that may require certain kinds of permits or environmental review. These permits include conditional-use permits, air-quality permits, wastewater permits, hazardous waste disposal permits, and other land-use entitlements. Since ministerial-level permits do not assess public health-related pollutants, staff does not assess projects requiring only ministerial-level permits in this report. The CEC is required to assess the local health impacts of projects proposed for Clean Transportation Program funding.

This report focuses on how project-related emissions or pollution could affect community health. Environmental justice communities, low-income communities, and minority communities are at higher risk of harm from pollution. Project locations in these communities are considered "high-risk community project locations." CEC staff identifies high-risk communities using a combination of demographic and environmental data. Environmental data for air quality come from the California Air Resources Board. Demographic data are from the U.S. Census Bureau and the California Employment Development Department.

CEC staff proposes five projects for Clean Transportation Program or similar grant funding awards under Solicitation GFO-23-603, "Implementation of Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure Blueprints." This grant initiative will implement zero-emission vehicle charging and hydrogen refueling infrastructure projects developed and identified in the final blueprint planning documents resulting from GFO-20-601, "Blueprints for Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure." Staff analyzed localized health impact information submitted by the project awardees. Based on project site information provided by the awardees, four of the five communities (Gilroy, Lebec, Long Beach, and Los Angeles), where proposed projects are located are considered high-risk. Community members near the proposed project sites may be at a higher risk of negative health impacts from pollution. However, staff does not anticipate a net increase in the pollution burden for the communities where these projects are located. Instead, staff expects the projects to reduce pollution levels.

CHAPTER 1:
Projects Proposed for Funding

Background

This solicitation uses the processes established under the Clean Transportation Program (CTP) and Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007). AB 118, amended by Assembly Bill 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the California Energy Commission (CEC) to "develop and deploy innovative technologies that transform California's fuel and vehicle types to help attain the state's climate change policies." Assembly Bill 126 (Reyes, Chapter 319, Statutes of 2023) most recently reauthorized the CTP through July 1, 2035.

Section 74 of the Budget Act of 2021 (Senate Bill 129, Skinner, Chapter 69, Statutes of 2021) provides funding that is related to but separate from the CTP.

On September 19, 2023, the CEC released a competitive grant solicitation, "Implementation of Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure Blueprints" (GFO-23-603). GFO-23-603 offered grant funding to implement zero-emission vehicle charging and hydrogen refueling infrastructure projects developed and identified in the final blueprint planning documents resulting from GFO-20-601, "Blueprints for Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure." GFO-23-603 will support switching from gasoline vehicles to electric vehicles, which will reduce criteria air pollutants and greenhouse gas (GHG) emissions in California.

Projects Selected

On February 12, 2024, the CEC posted a notice of proposed awards (NOPA)[1] identifying the five projects awarded grant funding under GFO-23-603. This report assesses the locations of each of those projects. Table 1 lists the proposed project location(s) for each of the awardees and the corresponding environmental justice (EJ) indicators. EJ indicator definitions are in Chapter 3 of this report, and EJ indicator analysis is in Table 3. In some cases, the city listed in the postal address for a project may differ from the geographic entity assigned by the U.S. Census Bureau. In these cases, the census location (county, place, or Census Designated Place) used for EJ indicator analysis is listed in parentheses in the table below.

1 Piper, Kevin. February 2024. "Notice Of Proposed Awards." California Energy Commission. Accessed March 25, 2024. Cover letter available at https://www.energy.ca.gov/sites/default/files/2024-02/GFO-23-603_NOPA_Cover_Letter_2024-02-12_ada.docx, and table of awardees available at https://www.energy.ca.gov/sites/default/files/2024-02/GFO-23-603_Notice_of_Proposed_Awards_2024-02-12_ada.xlsx.

Table 1: Project Details With EJ Indicators

Proposed Awardee	Project Title	Project Location	EJ Indicator(s)
City of Long Beach	City of Long Beach: GFO-23-603 Blueprint Implementation	2600 Temple Ave, Long Beach, CA 90806	Minority, Poverty
City of Long Beach	City of Long Beach: GFO-23-603 Blueprint Implementation	1651 San Francisco Ave, Long Beach, CA 90813	Minority, Poverty
Los Angeles Cleantech Incubator	LACI's I-710 Corridor Blueprint Implementation: Drayage Truck Charging in Long Beach	2140 Technology Pl, Long Beach, CA 90810	Minority, Poverty
Los Angeles Cleantech Incubator	LACI's I-710 Corridor Blueprint Implementation: Drayage Truck Charging in Long Beach	200 Pier S Ave, Wilmington, CA 90744 (Los Angeles city)	Minority, Poverty, Unemployment
Pilot Travel Centers LLC #1	CHIL Clean Hydrogen in Lebec	42810 Frazier Mountain Park Rd, Lebec, CA 93243	Age, Poverty
San Francisco Water Emergency Transportation Authority	Electric Float and Battery Project at Harbor Bay Ferry Terminal	215 Adelphian Wy, Alameda, CA 94502	Minority
United Natural Foods West, Inc.	The Gilroy Distribution Center Electric Tractor Charging Project	6351 Cameron Blvd, Gilroy, CA 95020	Minority, Unemployment

Source: CEC staff

Funding for these projects is contingent upon approval at a publicly noticed CEC business meeting and execution of a grant agreement.

Public Comment

As provided by Title 13 of the CCR, Section 2343, a 30-day public review period applies to this LHI Report from the date it is posted on the CEC website. The original posting date for this report is at https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program/localized-health-impacts-reports.

The CEC encourages comments by email. Please include your name or your organization's name in the name of the file. Send comments in either Microsoft® Word format (.doc) or Adobe® Acrobat® format (.pdf) to FTD@energy.ca.gov.

A hard copy can be mailed to:

California Energy Commission
Fuels and Transportation Division
715 P Street, MS-44
Sacramento, CA 95814-5512

All written comments will become part of the public record and may be posted to the Internet. News media should direct inquiries to the Media and Public Communications Office at 916-654-4989 or by email at mediaoffice@energy.ca.gov.

CHAPTER 2:
Project Descriptions

As part of the GFO-23-603 process for selecting projects, applicants must provide LHI information for their proposed project and location. This information includes the expected impact of the project on local communities and the outreach efforts the applicant has made to engage disadvantaged communities or other local communities. This chapter summarizes the information submitted by the awardees. The awardees identify disadvantaged communities using the CalEnviroScreen[2] screening tool developed by the Office of Environmental Health Hazard Assessment.

Applicants use different methods for estimating emissions reductions, so estimates may vary significantly between similar projects.

City of Long Beach

City of Long Beach's proposed project, "City of Long Beach: GFO-23-603 Blueprint Implementation," will implement plans from the "City of Long Beach Blueprint for Medium and Heavy-Duty Zero-Emissions Vehicle Infrastructure" project developed under grant funding agreement ARV-21-007. The project will deploy 10 ultrafast ChargePoint Express Plus direct-current fast charging stations and a 2-megawatt (MW) battery backup system to support grid resiliency and stability at the Fleet Services Yard for the City of Long Beach. The project will also complete design and engineering for 109 Level 2 ports at Fleet Services and 105 ports at Long Beach Public Service Yard for the City of Long Beach. The estimated emission reduction associated with medium-duty and heavy-duty (MDHD) truck operations supported by the installed charging infrastructure is 92.2 short tons over a 12-month operations period.

Outreach methods include engaging with policy makers and regulatory agencies, vehicle and equipment manufacturers, community-based organizations, funding agencies, financial project partners, industry partners, and education and workforce development partners. The City of Long Beach will establish a coordinating committee, including representatives from municipal departments, emergency services, and gas utilities, to organize regional and facility-level planning and deployment of MDHD zero-emission vehicle infrastructure. The project will also coordinate workforce development initiatives with Long Beach City College and Universal Technical Institute.

Los Angeles Cleantech Incubator

Los Angeles Cleantech Incubator's proposed project, "LACI's I-710 Corridor Blueprint Implementation: Drayage Truck Charging in Long Beach," will implement "Going for Gold — A

2 This tool ranks U.S. Census tracts based on geographic, socioeconomic, public health and environmental hazard criteria. See "CalEnviroScreen." Office of Environmental Health Hazard Assessment. Accessed March 25, 2024. Available at https://oehha.ca.gov/calenviroscreen.

Blueprint to Catalyze Medium- and Heavy-Duty Charging Infrastructure Investments in the Los Angeles Region Preceding the 2028 Games" project developed under grant funding agreement ARV-21-038. The project will install 27 dual-dispenser 350-kilowatt (kW) drayage truck chargers and battery-storage systems (2.0 megawatt-hours [MWh] and 1.8 MWh) at two locations next to the San Pedro Bay, Port of Los Angeles. Upon project completion, the associated electric truck deployment will eliminate 50,000 tons of GHG over the eight-year lifespan of the trucks.

Outreach efforts include sponsoring three events hosted by a clean-air advocacy and education partner for community members, fleet manufacturers, community college representatives, and regulatory staff. Events will increase community awareness about the workforce implications of vehicles, the types of jobs to be created, the skills needed, and the availability of alternative fuel technology programs. Before construction, the project team will work with public authorities and community advocacy groups[3] to develop a traffic study and designated truck route to ensure any truck queueing does not create safety risks for the nearby residents. The project will also provide funding for 10 community members to complete a certificate program in Electric Vehicle and Fuel Cell Technology or Alternative Fuels and Advanced Transportation Technology.

Pilot Travel Centers LLC #1

Pilot Travel Centers LLC's proposed project, "CHIL Clean Hydrogen in Lebec," will implement plans from the "California Zero-Emission Vehicle Highway Blueprint — Conceptual Travel Center Design" developed under grant funding agreement ARV-21-037. The project will construct two rapid H70[4] hydrogen refueling lanes, and one 25,000-gallon liquid hydrogen storage tank providing a storage capacity of up to 4,200 kilograms of hydrogen fuel at one location in Lebec (Kern County). By supporting the transition to fuel-cell electric trucks, the project is expected to reduce GHG emissions by more than 18,000 metric tons in the first eight years of deployment. No increase in local traffic is expected due to the hydrogen refueling station.

Outreach efforts include informing the public about the benefits of alternative transportation fuels and vehicle technologies. The project will also partner with the California Mobility Center to complete a targeted, community-level workforce development plan focusing on equitable training opportunities for the local workforce.

San Francisco Water Emergency Transportation Authority

San Francisco Water Emergency Transportation Authority's (WETA's) proposed project, "Electric Float and Battery Project at Harbor Bay Ferry Terminal," will implement plans from the "Blueprint for Zero Emission Vessel Transition" project developed under grant funding

3 Coalition for Environmental Health and Justice, Long Beach Alliance for Children with Asthma, Communities for a Better Environment, and East Yard Communities for Environmental Justice

4 Hydrogen is dispensed as a pressurized gas. H70 designation indicates a dispensing pressure of 70 megapascals (MPa) or about 10,000 pounds per square inch (psi).

agreement ARV-21-030. The project will deploy a charging float and 2,500-kilowatt-hour battery-storage system to support direct electric ferry service between Downtown San Francisco and Harbor Bay. The project is expected to reduce diesel emissions by 1,356 metric tons annually.

Outreach methods will include passenger surveys and providing project information to passengers, community-based organizations, community leaders, and local Native American tribes in person and online. The project will also establish a technical advisory group composed of technical experts and regional agency representatives to provide valuable insight and feedback at key points throughout the project.

United Natural Foods West, Inc

United Natural Foods West, Inc.'s (UNFI's) proposed project, "The Gilroy Distribution Center Electric Tractor Charging Project," will implement plans from the "California Food Logistics System Electrification Blueprint" project developed under grant funding agreement ARV-21-011. The project will deploy nine 180 kW and three 480 kW direct-current fast charging stations with a total of 30 ports, a 1.2 MW canopy solar array, and a 1 MW battery-energy-storage system for charging Class 8 tractor fleet trucks at UNFI's fleet depot in Gilroy (Santa Clara County).

Table 2: UNFI Emissions Reductions Estimate

	GHG	NOx	PM2.5
Diesel Tractor (grams/mile)	1,592	2.5476	0.0564
EV Tractor (grams/mile)	241	0	0.0222
Savings (grams/mile)	1,351	2.5476	0.0342
Total Miles	1,476,244	1,476,244	1,476,244
Total Reduction (grams)	1,994,405,870	3,760,879	50,487
Total Reduction (metric tons)	**1,994.40**	**3.76**	**0.05**

Source: UNFI

Outreach efforts include engaging with the public at community conferences, such as the Advanced Clean Transportation Expo, to showcase the project benefits and UNFI's commitment to sustainable practices. Project updates will also be provided through the UNFI website, internal newsletter, social media platform, and press releases. UNFI may potentially host public tours of the facility and chargers for community college students and will continue to collaborate with Climate Collaborative to share project insights and progress at climate change-related webinars.

CHAPTER 3:
Location Analysis

This LHI Report identifies projects located in high-risk communities, using staff's adaptation of the Environmental Justice Screening Method (EJSM).[5] *High-risk communities* are those with social vulnerability indicators, high exposure to pollution, and greater health risks. This LHI Report is not intended to be a detailed pollution analysis of proposed projects, nor is it intended to substitute for the environmental review conducted as part of the California Environmental Quality Act (CEQA).

CEC staff identifies high-risk community project locations using data from the California Air Resources Board (CARB), the U.S. Census Bureau, and public agencies. CEC staff analyzes the data to assign EJ indicators for each project location specified in the report. The proposed project location must meet a two-part environmental and demographic standard to be considered in a high-risk community.

Part 1: Environmental Standard

Communities meet the environmental standard if they have a high concentration of air pollutants. These pollutants include ozone, particulate matter 2.5 microns in diameter or smaller ($PM_{2.5}$), or particulate matter 10 microns in diameter or smaller (PM_{10}). The environmental standard uses CARB air quality monitoring data on nonattainment[6] status for these pollutants.

Using 2022 data,[7] all projects are in communities that meet the environmental standard since they are within a nonattainment zone for ozone, $PM_{2.5}$, or PM_{10}. This finding indicates that there may be existing poor air quality where the proposed projects are located.

Part 2: Demographic Standard

Communities meet the demographic standard if they have two or more EJ indicators for minority, age, poverty, and unemployment. Staff defines the EJ indicator thresholds as:

1. A minority subset that represents more than 30 percent of a given city's population.

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5 Pastor Jr., Manuel (University of Southern California), Rachel Morello-Frosch (University of California, Berkeley), and James Sadd (Occidental College). 2010. *Air Pollution and Environmental Justice: Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making*. California Air Resources Board. Accessed March 25, 2024. Available at https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/04-308.pdf.

6 A *nonattainment* area is a geographic area that does not meet the Ambient Air Quality Standards (state, national, or both) for a given pollutant. See "Maps of State and Federal Area Designations." California Air Resources Board. Accessed March 25, 2024. Available at https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

7 Ibid.

2. The percentage of people living in a city who are younger than 5 years of age, or who are 65 years of age or older, is more than 1.2 times (more than 20 percent higher than) the state average for those categories.
3. A city's poverty rate that exceeds the state average poverty rate.
4. The city (or county if city data are unavailable) unemployment rate exceeds the average state unemployment rate.

The demographic standard uses the U.S. Census Bureau's American Community Survey five-year estimates[8] on race, ethnicity, age, and poverty, and the California Employment Development Department's monthly data[9] on unemployment. Specifically, this LHI Report uses city-level[10] and county-level[11] unemployment data. Unemployment data are not seasonally adjusted.

Analysis Results

Staff finds that four of the five communities (Gilroy, Lebec, Long Beach, and Los Angeles) where these projects are located meet the criteria for high-risk communities since they meet both the environmental and demographic standards. In Table 3, a **bold** number followed by an asterisk (*) indicates categories that exceed a given EJ indicator threshold. A city/county name in **bold**, followed by a dagger (†), indicates a high-risk community.

8 American Community Survey codes DP05 and S1701 were used to find data. See "Explore Census Data." U.S. Census Bureau. Accessed March 25, 2024. Available at https://data.census.gov/cedsci/.

9 Overview page with data from most recent and previous months: "Unemployment Rate and Labor Force." Employment Development Department. Accessed March 25, 2024. Available at https://labormarketinfo.edd.ca.gov/data/unemployment-and-labor-force.html.

10 Most recent data only: "Monthly Labor Force Data for Cities and Census Designated Places (CDP)." Employment Development Department. Accessed March 25, 2024. Available at https://labormarketinfo.edd.ca.gov/file/lfmonth/allsubs.xls.

11 Most recent data only: "Monthly Labor Force Data for Counties." Employment Development Department. Accessed March 25, 2024. Available at https://labormarketinfo.edd.ca.gov/file/lfmonth/countyur-400c.pdf.

Table 3: EJ Indicators by Project Location City Demographic

Site Location	American Indian and Alaska Native (2022)	Asian (2022)	Black or African American (2022)	Hispanic or Latino (Any Race) (2022)	Native Hawaiian and Pacific Islander (2022)	Under 5 Years of Age (2022)	65 Years of Age and Over (2022)	Below Poverty Level (2022)	Unemploy-ment (February 2024)
California	**1.0%**	**15.1%**	**5.6%**	**39.7%**	**0.4%**	**5.7%**	**14.9%**	**12.1%**	**5.1%**
EJ Indicator Threshold	**30.0%**	**30.0%**	**30.0%**	**30.0%**	**30.0%**	**6.8%**	**17.9%**	**12.1%**	**5.1%**
Alameda	0.4%	**31.4%***	6.9%	12.1%	0.5%	6.2%	17.0%	7.1%	4.7%
Gilroy†	1.0%	10.8%	2.2%	**58.8%***	0.2%	6.6%	12.4%	7.8%	**5.4%***
Lebec CDP†	2.8%	21.5%	0.0%	27.3%	0.0%	5.9%	**29.0%***	**37.3%***	5.1%
Long Beach†	1.3%	12.7%	12.0%	**44.1%***	0.6%	5.4%	12.5%	**15.1%***	5.0%
Los Angeles†	1.0%	11.8%	8.6%	**48.1%***	0.1%	5.3%	13.4%	**16.6%***	**5.2%***

Sources: CEC staff, Employment Development Department, and U.S. Census Bureau

Summary

If funded, the proposed projects would expand the supply of zero-emission vehicle charging and hydrogen refueling infrastructure for MDHD applications. This expansion will reduce emissions by encouraging fleets to switch from gas-powered vehicles to fuel-cell and electric vehicles.

Based on EJSM standards, CEC staff has identified four of the five communities (Gilroy, Lebec, Long Beach, and Los Angeles), where these projects are located as high-risk communities. These communities are at a higher risk of adverse health effects from pollution. However, staff found no indication that the projects identified in this LHI Report would negatively affect community health. Staff does not anticipate a significant increase in local pollutants, and the project awardees identify no major construction that would generate criteria emissions or pollutants. These proposed projects may create a net benefit for the communities, by reducing harmful criteria air pollutants, toxic air contaminants, and GHGs that contribute to climate change.

GLOSSARY

Term	Definition
California Code of Regulations (CCR)	The official compilation and publication of the regulations adopted, amended, or repealed by state agencies under the Administrative Procedure Act (APA). Adopted regulations that have been filed with the Secretary of State have the force of law.
California Environmental Quality Act (CEQA)	A statute that requires state and local agencies to identify the significant environmental impacts of their actions and avoid or reduce those impacts, if feasible.
CalEnviroScreen	A screening tool that evaluates and ranks census tracts in California based on potential exposures to pollutants, adverse environmental conditions, socioeconomic factors, and prevalence of certain health conditions.
Census Designated Places	A statistical entity defined by the U.S. Census Bureau representing closely settled, unincorporated communities that are locally recognized and identified by name. The statistical equivalents of incorporated places.
Census Place	A legally bounded entity such as an incorporated city or a town with a functioning governmental structure.
Class 8 truck	Class 8 vehicles have a gross vehicle weight rating (GVWR) exceeding 33,000 pounds. The class includes tractor trailer tractors, single-unit dump trucks with a GVWR greater than 33,000 pounds, and noncommercial chassis fire trucks typically with three or more axles.
Community-based organization	An organization that is intended to serve a particular geographic area and is based mainly in the community which it serves.
Criteria air pollutant	An air pollutant for which acceptable levels of exposure can be determined and for which the U.S. Environmental Protection Agency has set an ambient air quality standard. Examples include ozone (O_3), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulate matter (PM_{10} and $PM_{2.5}$).
Direct-current fast charger	High-speed charger for electric vehicles. DC fast charging uses direct current (DC) and can provide more power than either Level 1 or Level 2 charging.

Term	Definition
Disadvantaged community	A designation by the California Environmental Protection Agency used to identify areas disproportionately affected by environmental pollution or hazards due to geographic, socioeconomic, public health, and environmental factors.
Electric vehicle (EV)	A vehicle that is powered partly or completely by electricity. This definition often refers to battery-electric vehicles, which have no engine and store all the energy in batteries. The term can also include other vehicle types, such as plug-in hybrids.
Environmental justice (EJ)	The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
Environmental Justice Screening Method (EJSM)	An approach that combines environmental and demographic indicators to inform agency outreach and engagement practices regarding environmental justice.
Fuel cell electric vehicle (FCEV)	A vehicle that is powered partly or completely by fuel cells sometimes in combination with a small battery or supercapacitor, to power the onboard electric motor. Fuel cells in vehicles generate electricity generally using oxygen from the air and compressed hydrogen.
Grant funding opportunity (GFO)	Where the California Energy Commission offers applicants an opportunity to receive grant funding for projects meeting certain requirements.
Greenhouse gas (GHG)	Any gas that absorbs infra-red radiation in the atmosphere. Greenhouse gases include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), halogenated fluorocarbons (HCFCs), ozone (O_3), perfluorinated carbons (PFCs), and hydrofluorocarbons (HFCs).
H70	Hydrogen is dispensed as a pressurized gas. H70 designation indicates a dispensing pressure of 70 megapascals (MPa) or about 10,000 psi.
Hydrogen refueling station (HRS)	A storage or filling station for hydrogen fuel where hydrogen is dispensed by weight.
Liquid hydrogen	Liquid hydrogen is the liquid state of the element hydrogen. Hydrogen is found naturally in the molecular H_2 form. To exist as a liquid, H_2 must be cooled below its critical point of −253°C (−423°F).

Term	Definition
Localized health impacts (LHI)	Potential health impacts to communities.
Medium-duty and heavy-duty (MDHD)	Classes 4–6 medium-duty trucks generally weigh between 14,000 and 26,000 pounds. Classes 7 and 8 heavy-duty trucks weigh between 26,001 and 33,000 pounds.
Metric ton	A unit of weight equal to 1,000 kilograms or 2,205 pounds.
Nitrogen oxides (NO_x)	A general term including nitric oxide (NO), nitrogen dioxide (NO_2), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation.
Notice of proposed awards (NOPA)	A document identifying projects that are proposed to receive funding under a California Energy Commission funding opportunity, such as a grant funding opportunity.
Particulate matter (PM)	Any material besides pure water that exists in a solid or liquid state in the atmosphere. The size of particulate matter can vary from coarse, wind-blown dust particles to fine particles resulting from combustion.
$PM_{2.5}$	Particulate matter with particles 2.5 microns in diameter or smaller. Also called "fine particulate matter."
PM_{10}	Particulate matter with particles 10 microns in diameter or smaller. Also called "coarse particulate matter."
Short ton	An Imperial unit of mass equal to 2,000 pounds.
Sulfur oxides (SO_x)	A group of pungent, colorless gases formed primarily by the combustion of sulfur-containing fossil fuels, especially coal and oil. Considered major air pollutants, sulfur oxides may impact human health and damage vegetation.
Toxic air contaminant	An air pollutant, identified in California Air Resources Board regulations, which may cause negative health effects even at very low concentrations.
Volatile organic compound (VOC)	Closely related to the term "reactive organic gas" (ROG). VOCs are carbon-containing compounds that evaporate into the air (with a few exceptions), and often have an odor. VOCs contribute to the formation of smog or may themselves be toxic or both. Some examples include gasoline, alcohol, and the solvents used in paints.

Term	Definition
Zero-emission vehicle (ZEV)	A vehicle that produces no emissions from the onboard source of power. Common examples are battery-electric vehicles and fuel-cell electric vehicles.

Sources: California Air Resources Board, CEC Energy Glossary, University of Michigan School of Public Health, and U.S. Environmental Protection Agency