CALIFORNIA ENERGY COMMISSION

CALIFORNIA NATURAL RESOURCES AGENCY

California Energy Commission

STAFF REPORT

Localized Health Impacts Report

Projects Awarded Funding Under Solicitation GFO-22-607 — Light-Duty Vehicle and Multi-Use Hydrogen Refueling Infrastructure

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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-22-607. This grant initiative seeks to fund publicly available hydrogen refueling stations to enable continued growth of the California fuel cell electric vehicle (FCEV) market. 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 three projects for Clean Transportation Program or similar grant funding awards under Solicitation GFO-22-607. One of these projects has several locations. Based on project site information provided by the awardees, four (Galt, Kettleman City, Madera, and Visalia) of the six communities where these projects are located are considered high-risk communities. Community members near the proposed project sites may be at a higher risk of adverse health impacts from pollution. However, 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), fuel cell electric vehicle (FCEV), hydrogen refueling station (HRS), 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 hydrogen refueling station projects proposed for funding that may require certain kinds of permits or environmental review. 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 (CARB). Demographic data are from the U.S. Census Bureau and the California Employment Development Department.

CEC staff proposes three projects for Clean Transportation Program or similar grant funding awards under Solicitation GFO-22-607, titled "Light-Duty Vehicle and Multi-Use Hydrogen Refueling Infrastructure." This initiative seeks to fund publicly available hydrogen refueling stations to enable continued growth of the California fuel cell electric vehicle (FCEV) market. Staff analyzed localized health impact information submitted by the project awardees. Based on project site information provided by the awardees, four (Galt, Kettleman City, Madera, and Visalia) of the six communities 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

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the Clean Transportation Program (CTP). Assembly Bill 118, amended by Assembly Bill 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the 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 8 (Perea, Chapter 401, Statutes of 2013) reauthorizes the CTP to January 1, 2024. Assembly Bill 8 also directed the California Energy Commission (CEC) to allocate $20 million annually, not to exceed 20 percent of the amount of funds appropriated by the Legislature, toward at least 100 publicly available hydrogen refueling stations (HRSs).[1]

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 October 21, 2022, the CEC released a competitive grant solicitation titled "Light-Duty Vehicle and Multi-Use Hydrogen Refueling Infrastructure" (GFO-22-607). GFO-22-607 offered CTP grant funding for projects that will provide publicly available HRSs to enable continued growth of the California fuel cell electric vehicle (FCEV) market. The solicitation requires that HRSs be one of the following:

- Located in an area in the GFO-22-607 Eligibility Map,[2] which includes new markets and high-need disadvantaged communities.
- Located at a site that is on or adjacent to a property where a FCEV fleet of any vehicle classification is or will be serviced and this FCEV fleet is committed to use the HRS.

GFO-22-607 will support FCEV deployment in several vehicle market segments and bring hydrogen fueling to areas without HRSs, which will reduce criteria air pollutants and greenhouse gas (GHG) emissions in California.

1 Baronas, Jean, Belinda Chen, et al. 2021. *Joint Agency Staff Report on Assembly Bill 8: 2021 Annual Assessment of Time and Cost Needed to Attain 100 Hydrogen Refueling Stations in California*. California Energy Commission and California Air Resources Board. Publication Number: CEC-600-2021-040. https://www.energy.ca.gov/sites/default/files/2021-12/CEC-600-2021-040.pdf.

2 Martinez, Andrew. October 2022. "GFO-22-607 Eligibility Map." California Air Resources Board. Accessed April 19, 2023. Available at https://californiaarb.maps.arcgis.com/apps/webappviewer/index.html?id=20eaf894ac074849ac21aebec5a71934.

Projects Selected

On April 12, 2023, the CEC posted a notice of proposed awards (NOPA)[3] identifying the three projects awarded grant funding under GFO-22-607. This LHI 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 LHI Report, and EJ indicator analysis is in Table 3.

Table 1: Project Details With EJ Indicators

Proposed Awardee	Project Title	Project Location	EJ Indicator(s)
Phillips 66 Company	Project Catalyst	18463 Road 23, Madera, CA, 93637	Minority, Age, Poverty, Unemployment
Phillips 66 Company	Project Catalyst	6422 Betty Dr, Visalia, CA, 93291	Minority, Age, Poverty, Unemployment
Phillips 66 Company	Project Catalyst	3329 Mather Field Rd, Rancho Cordova, CA 95670	Age
Phillips 66 Company	Project Catalyst	3402 E Vineyard Ave, Oxnard, CA 93036	Minority
FirstElement Fuel	Multi-Use Hydrogen Refueling Station (MUHRS)	33252 Hubert Way, Kettleman City, CA 93239	Minority, Age, Poverty
Air Products and Chemicals Inc.	Galt Multi-Modal Hydrogen Refueling Station for Heavy-Duty and Light-Duty	Carol Dr, Lot 94 and Lot 95, Galt, CA	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 available at https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program/localized-health-impacts-reports.

3 Johnson, Natalie. 2023. "Notice Of Proposed Awards." California Energy Commission. Accessed April 19, 2023. Cover letter available at https://www.energy.ca.gov/sites/default/files/2023-04/GFO-22-607_NOPA_Cover_Letter_2023-04-12_ada.docx, and table of awardees available at https://www.energy.ca.gov/sites/default/files/2023-04/GFO-22-607_NOPA_2023-04-12_ada.xlsx.

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-22-607 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 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[4] 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.

Phillips 66 Company

Phillips 66 Company's (Phillips 66) proposed project, titled "Project Catalyst," will install four HRSs at existing United Pacific retail locations within 380 miles of the Rodeo Refinery (source refinery). The Rodeo Refinery in Contra Costa County processes 10,000 barrels per day of renewable feedstock to produce renewable propane. This renewable propane is captured and recirculated through the hydrogen production unit to create a renewable stream of hydrogen. The Phillips 66 life-cycle analysis team has developed an initial assessment that shows a 60 percent reduction from traditional gray hydrogen. The reduction in greenhouse gases and other criteria pollutants associated with all four station locations are provided in Table 2 below.

Table 2: Phillips 66 Company Emissions Reductions

	2024	2025	2026	2027	2028	2029
GHG [metric tons/year]	1,878	3,415	4,952	5,977	7,206	8,538
NOx [kg/year]	607	1,089	1,571	1,893	2,278	2,696
SOx [kg/year]	191	342	493	594	714	845
PM-10 [kg/year]	51	92	133	160	193	228
PM-2.5 [kg/year]	39	72	104	125	151	179
CO [kg/year]	5,870	31,495	17,121	20,869	25,369	30,245

Source: Phillips 66

Outreach will include a public awareness program to residents and businesses within a mile of each facility. Phillips 66 maintains hotline numbers, customer service representatives, and a website email (Contact Us) to accept consumer feedback. Phillips 66 also supports engagement through its third-party station operators known as "marketers." Marketers support the company's operations in Madera and Fremont. The company also maintains several business-to-business engagement and communications activities, including weekly,

4 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 19, 2023. Available at https://oehha.ca.gov/calenviroscreen.

monthly, and quarterly information outreach; staff sales representatives; and product delivery staff.

FirstElement Fuel

FirstElement Fuel's (FEF) proposed project, titled "Multi-Use Hydrogen Refueling Station (MUHRS)," will install an HRS for refueling light-duty, medium- and heavy-duty hydrogen vehicles in Kettleman City (Kings County). This location was a previous truck tire and maintenance business. It is next to the I-5 freeway and a large UPS distribution center and across the street from an even larger FedEx distribution center. There is significant diesel truck traffic through this area. FEF does not anticipate any increase in emissions when compared to the current operations. Emissions should be reduced due to displacing diesel truck traffic with zero-emission fuel cell trucks.

The environmental benefits will be from the increased availability and use of zero-emission light-, medium-, and heavy-duty vehicles. An added benefit will be demonstrating that hydrogen and fuel cells can be used in all transportation sectors and duty cycles.

Outreach efforts will include engaging with Valley Clean Air Now (Valley CAN) and the Coalition for Clean Air to conduct education and outreach to the local community. The initial plans are to host several public meetings and establish a website with current information, educational resources, and incentives programs. FEF also intends to work with the local air district to identify the extent the station can be included in their AB 617 Community Air Protection programs.

Air Products and Chemicals Inc.

Air Products and Chemicals Inc.'s (APCI) proposed project, "Galt Multi-Modal Hydrogen Refueling Station for Heavy-Duty and Light-Duty Vehicles," will build, own, and operate a high-capacity hydrogen refueling station, employing proprietary two-phase compression technology. The station will provide several H70 fueling positions for both heavy-duty and light-duty vehicles. The proposed project sites at Carol Drive, Lot 94 and Lot 95, in Galt are vacant and will be combined into a three-acre single parcel for adequate truck and light-duty fueling areas, as well as a distinct queuing area.

This station will be fueled with green hydrogen produced in APCI's planned green hydrogen facility in Casa Grande, Arizona, which will be on-line producing renewable hydrogen in 2024. According to the U.S. EPA, the amount of carbon dioxide (CO_2) generated per gallon of diesel combusted is estimated to be 22.44 lbs CO_2/gallon of diesel. Based on APCI's estimated station capacity of refueling 120 trucks per day and the average tank size of a Class 8 truck, the immediate air quality impact of the Galt station will reduce heavy-duty truck emission by 161,568 lbs CO_2/day. APCI is also converting its own fleet of hydrogen delivery vehicles to hydrogen fuel cell electric vehicles, reducing well-to-wheel emissions.

Once that conversion is complete, APCI estimates that the project will reduce emissions by 269,280 lbs CO_2/day in addition to the significant criteria pollutants reduction that the area will benefit from by not combusting diesel fuel.

The project team will establish a 24/7 community helpline in English and Spanish for community concerns or questions and dedicated email address to respond to community concerns. The project team contracted Three Squares Inc., a California-certified small and women-owned business, to develop a community engagement strategy. Outreach methods will include educational materials for schools and community members; briefings for first responders, environmentally focused organizations, and other local air quality organizations; and ongoing coordination with the Sacramento County Fire Department regarding all operations at the facility. Outreach will be implemented during the first phase of construction and last through the first full year of station operation.

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 during CEQA.

CEC staff identifies high-risk community project locations using data from CARB, the U.S. Census Bureau, and other public agencies. The data are analyzed to assign EJ indicators for each project location specified in the LHI 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 three 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 represents more than 30 percent of a given city's population.
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 age categories.

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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. 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 April 19, 2023. Available at https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

7 Ibid.

3. A city's poverty rate exceeds the state average poverty rate.
4. The city (or county if city data are unavailable) unemployment rate exceeds the state average 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] unemployment data. Unemployment data are not seasonally adjusted.

Four of the six communities where these projects are located meet the demographic standard, since they exceed the threshold for two or more EJ indicators (Table 3).

Analysis Results

Staff finds that four of the six communities 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.

Table 3: EJ Indicators by Project Location City Demographic

Site Location	American Indian and Alaska Native (2021)	Asian (2021)	Black or African American (2021)	Hispanic or Latino (Any Race) (2021)	Native Hawaiian and Pacific Islander (2021)	Under 5 Years of Age (2021)	65 Years of Age and Over (2021)	Below Poverty Level (2021)	Unemploy-ment (March 2023)
California	0.9%	14.9%	5.7%	39.5%	0.4%	6.0%	14.4%	**12.3%**	**4.8%**
EJ Indicator Threshold	**30%**	**30%**	**30%**	**30%**	**30%**	**7.2%**	**17.3%**	**12.3%**	**4.8%**
Galt†	0.5%	4.1%	2.2%	**45.0%***	0.1%	5.7%	13.2%	9.2%	**6.6%***
Kettleman City†	0.0%	0.0%	0.0%	**100.0%***	0.0%	**7.3%***	14.1%	**19.5%***	3.4%
Madera†	1.2%	2.0%	3.9%	**79.3%***	0.1%	**8.6%***	8.9%	**27.4%***	**8.7%***

8 American Community Survey codes DP05 and S1701 were used to find data. See "Explore Census Data." U.S. Census Bureau. Accessed May 1, 2023. 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 May 1, 2023. 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 May 1, 2023. Available at https://labormarketinfo.edd.ca.gov/file/lfmonth/allsubs.xls.

Site Location	American Indian and Alaska Native (2021)	Asian (2021)	Black or African American (2021)	Hispanic or Latino (Any Race) (2021)	Native Hawaiian and Pacific Islander (2021)	Under 5 Years of Age (2021)	65 Years of Age and Over (2021)	Below Poverty Level (2021)	Unemploy-ment (March 2023)
Oxnard	2.3%	6.7%	2.1%	**75.4%***	0.3%	6.6%	10.3%	10.6%	4.4%
Rancho Cordova	1.1%	14.0%	10.9%	20.9%	0.7%	**7.9%***	11.7%	11.2%	4.3%
Visalia†	1.1%	6.1%	2.5%	**53.0%***	0.0%	**8.0%***	12.5%	**13.5%***	**5.1%***

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

Summary

If funded, the proposed projects would result in an expanded supply of publicly available HRSs to enable continued growth of the California FCEV market. This expansion will achieve emissions reductions by encouraging residents and businesses to switch from gas-powered vehicles to FCEVs.

Based on EJSM standards, CEC staff has identified four of the six communities 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 CTP-funded 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. In fact, these proposed projects may create a net benefit for the surrounding communities, by reducing harmful criteria air pollutants, toxic air contaminants, and greenhouse gases (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). Properly 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.
Carbon monoxide (CO)	A colorless, odorless, highly poisonous gas formed by the incomplete combustion of certain fuels, including gasoline.
Class 8 truck	Class 8 are vehicles with a gross vehicle weight rating exceeding 33,000 lb and typically have three or more axles. They include, but are not limited to tractor trailer tractors, single-unit dump trucks, as well as non-commercial chassis fire trucks.
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 $PM_{2.5}$).
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.
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.

Term	Definition
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 its 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.
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.
Localized health impacts (LHI)	Potential health impacts to communities.
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."
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.

Term	Definition
Toxic air contaminant	An air pollutant, identified in California Air Resources Board regulations, which may cause negative health effects even at very low concentrations.

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