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California Energy Commission

STAFF REPORT

Localized Health Impacts Report

For Selected Projects Awarded Funding Through the Clean
Transportation Program Under Solicitation GFO-19-602
Hydrogen Refueling Infrastructure

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ABSTRACT

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the Clean Transportation Program (formerly known as Alternative and Renewable Fuel and Vehicle Technology Program). This statute, amended by Assembly Bill 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the California Energy Commission 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 Clean Transportation Program through January 1, 2024.

AB 118 also directs the California Air Resources Board to develop guidelines to ensure air quality improvements. The CARB’s Air Quality Improvement Program Guidelines, approved in 2008, are published in the *California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1, AB 118 Air Quality Guidelines for the Clean Transportation Program*. The guidelines require the California Energy Commission, as the funding agency, to analyze the localized health impacts of Clean Transportation Program-funded projects that require a permit (California Code of Regulations section 2343).

This Localized Health Impacts Report analyzes and reports on the potential health impacts to communities from projects seeking California Energy Commission funding. Information submitted by project funding applicant(s) is used in this report to help identify communities at a higher risk of adverse health effects from pollution. As provided by California Code of Regulations section 2343, this Localized Health Impacts Report is available for public comment for 30 days prior to the approval of projects at a publicly noticed business meeting.

Keywords: air pollution, air quality improvement program (AQIP), California Air Resources Board (CARB), Assembly Bill (AB) 118, California Environmental Quality Act (CEQA), environmental justice (EJ) indicators, Environmental Justice Screening Method (EJSM), fuel cell electric vehicle (FCEV), hydrogen, localized health impacts (LHI), zero-emission vehicle (ZEV)

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EXECUTIVE SUMMARY

Under the California Code of Regulations Title 13, (California Code of Regulations section 2343), this Localized Health Impacts report describes the hydrogen refueling infrastructure projects proposed for Clean Transportation Program funding that may require a conditional or discretionary permit or environmental review such as 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, California Energy Commission staff does not assess projects requiring only ministerial-level permits in this report.

The California Energy Commission is required to assess the local health impacts of projects proposed for Clean Transportation Program funding. This report focuses on the potential health impacts to communities from project-related emissions or pollution. Project locations where communities potentially have a higher risk of adverse health impacts from pollution are identified as high-risk community project locations. High-risk communities are identified using demographic data with environmental data for air quality from the California Air Resources Board.

Environmental justice communities, low-income communities, and minority communities are considered the most impacted by any project that could result in increased criteria and toxic air pollutants within an area. Preventing or minimizing health-risks from pollution is vital in any community, but it is especially important for communities already considered to be at high risk due to preexisting poor air quality and other prevalent factors.

Energy Commission staff is proposing 30 projects for Clean Transportation Program grant funding awards. Localized health impact information submitted by the project awardees are analyzed by staff. Based on the project site information provided by the awardees, the proposed project locations of Artesia, Baldwin Park, City of Industry, Fontana, Long Beach, Los Angeles, San Bernardino, and San Jose are in high-risk communities. Community members near the proposed project site location may be at a higher risk to adverse health impacts from pollution. Energy Commission staff does not anticipate a net increase in the pollution burden for the communities where these projects are located

CHAPTER 1:

Projects Proposed For Funding

Background

On December 26, 2019, the California Energy Commission (CEC) released a competitive grant solicitation titled “Hydrogen Refueling Infrastructure” (GFO-19-602). GFO-19-602 offered Clean Transportation Program grant funding for projects that will deploy publicly accessible hydrogen refueling stations that serve California’s light-duty and commercial fuel cell electric vehicles (FCEVs) in California. As required by California Code of Regulations (CCR) section 2343, this Localized Health Impacts Report (LHI report) analyzes the potential community health impacts near Clean Transportation Program funded projects 30 days prior to their approval in a publicly noticed meeting.

Projects Selected

On September 4, 2020, the CEC posted a notice of proposed award (NOPA)¹ identifying the projects selected by CEC staff for Clean Transportation Program grant funding awards. This LHI report assesses the project locations chosen by each of the three GFO-19-602 applicants (awardees) identified in the NOPA. For each of the awardees, Tables 1, 2, and 3 list the proposed project location(s) and their corresponding environmental justice (EJ) indicators.² EJ indicator definitions are in Appendix A of this LHI report.

1 See [notice of proposed award](https://www.energy.ca.gov/sites/default/files/2020-09/NOPA_Cover_Letter_GFO-19-602_09-04-2020_ADA.docx), https://www.energy.ca.gov/sites/default/files/2020-09/NOPA_Cover_Letter_GFO-19-602_09-04-2020_ADA.docx

2 [EJ indicators](https://www.epa.gov/ejscreen/environmental-justice-indexes-ejscreen) developed by the U.S. EPA, Office of Policy. Available at <https://www.epa.gov/ejscreen/environmental-justice-indexes-ejscreen>. See Appendix A for staff definitions.

**Table 1: Equilon Enterprises, LLC (DBA Shell Oil Products U.S.)
Project Details Along With EJ Indicators**

Project Location	EJ Indicator(s)
2051 West 190th Street, Torrance, CA 90501	Minority
1600 Jamboree Boulevard, Newport Beach, CA 92660	None
5164 West Washington Boulevard, Los Angeles, CA 90016	Poverty, Minority, and Unemployment
2589 North Lakewood Boulevard, Long Beach, CA 90815	Poverty, Minority, and Unemployment
2600 Pellissier Place, City of Industry, CA 90601	Minority and Unemployment
17325 Pioneer Boulevard, Artesia, CA 90701	Minority
705 West Huntington Drive, Monrovia, CA 91016	Minority
7170 Avenida Encinas, Carlsbad, CA 92011	None

Source: California Energy Commission staff

Table 2: FirstElement Fuel, Inc Project Details Along With EJ Indicators

Project Location	EJ Indicator(s)
313 West Orangethorpe Avenue, Placentia, CA 92870	Minority
615 South Tustin Street, Orange, CA 92866	Minority
21530 Stevens Creek Boulevard, Cupertino, CA 95014	Minority
14477 Merced Avenue, Baldwin Park, CA 91706	Poverty, Minority, and Unemployment
3939 Snell Avenue, San Jose, CA 95136	Minority
2995 Bristol Street, Costa Mesa, CA 92626	Minority
26813 La Paz Road, Aliso Viejo, CA 92656	None
1832 West Washington Street, San Diego, CA 92103	None
24505 Hawthorne Boulevard, Torrance, CA 90505	Minority
2160 South Euclid Avenue, Ontario, CA 91762	Poverty

Project Location	EJ Indicator(s)
800 North Hollywood Way, Burbank, CA 91505	Unemployment
1666 1st Avenue, San Diego, CA 92101	None
510 East Santa Clara Street, San Jose, CA 95112	Minority
1930 South Waterman Avenue, San Bernardino, CA 92408	Minority and Unemployment
3160 Carlson Boulevard, El Cerrito, CA 94530	None
11030 Rancho Carmel Drive, San Diego, CA 92128	None
6392 Beach Boulevard, Buena Park, CA 90621	None
3402 Foothill Boulevard, Glendale, CA 91214	Poverty
666 North Santa Cruz Avenue, Los Gatos, CA 95030	None
47700 Warm Springs Boulevard, Fremont, CA 94539	Minority
988 North San Antonio Rd, Los Altos, CA 94022	None

Source: California Energy Commission staff

Table 3: Iwatani Corporation Project Details Along With EJ Indicators

Project Location	EJ Indicator(s)
16880 Slover Avenue, Fontana, CA 92337	Poverty and Minority

Source: California Energy Commission staff

Funding for projects resulting from this solicitation is contingent upon approval at a publicly noticed CEC Business Meeting and execution of a grant agreement.

Public Comment

As provided by Title 13 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](https://www.energy.ca.gov/altfuels/documents/) is at <https://www.energy.ca.gov/altfuels/documents/>.

The CEC encourages comments by email. Please include your name or 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.

The public can email comments to FTD@energy.ca.gov or send them to:

California Energy Commission
Fuels and Transportation Division
1516 Ninth 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 Description

As part of the GFO-19-602 process for selecting projects, applicants must provide LHI information for their proposed project and its location. This chapter summarizes the LHI information submitted by the awardees regarding their projects' expected impact on local communities and the outreach efforts they have made to engage disadvantaged communities (DAC)³ or other local communities. DAC's are identified by the awardees using the CalEnviroScreen⁴ screening tool developed by the Office of Environmental Health Hazard Assessment (OEHHA) to identify communities facing multiple burdens of pollution and socioeconomic disadvantage. Projects are listed below in the order shown in Tables 1, 2, and 3.

Equilon Enterprises, LLC (DBA Shell Oil Products U.S.)

Shell Oil Products U.S.' (Shell) eight proposed hydrogen refueling stations will be installed within Shell's existing conventional fueling network of retail stations, offering FCEV drivers the equivalent service to that of conventional vehicles. Over a five- and ten-year period, Shell estimates that each station would provide an overall savings for criteria air pollutant emissions compared to conventional gasoline fueling (see Table 4). This overall savings is also accounting for added criteria pollutants associated with hydrogen fuel truck deliveries and hydrogen production. Moreover, Shell does not anticipate significant community impacts from station installation as criteria pollutant emissions are expected to be negligible.

If awarded funding, Shell will use a combination of digital and physical forms of outreach to notify and collaborate with communities about projects. This includes social media and websites posts, electronic mailing lists, local news advertisements, and city meetings.

Table 4: Shell Predicted Project-Generated Net Emissions Reductions for Each Station

	Five-Year Operations Net Emissions Reductions	Ten-Year Operations Net Emissions Reductions
NOx Average per Station (kg)	3,517	5,775
PM2.5 Average per Station (kg)	105	172
HC Average per Station (kg)	459	754
CO Average per Station (kg)	65,511	107,554

Source: Shell

3 Disadvantaged communities are identified using the CalEnviroScreen tool, which ranks U.S. Census tracts based on geographic, socioeconomic, public health and environmental hazard criteria.

4 See [Office of Environmental Health Hazard Assessment website](https://oehha.ca.gov/calenviroscreen), <https://oehha.ca.gov/calenviroscreen>.

FirstElement Fuel, Inc.

FirstElement Fuel, Inc.'s (FirstElement Fuel) 21 proposed hydrogen refueling stations will be installed within existing gasoline/diesel fueling stations, offering FCEV drivers the equivalent service to that of conventional vehicles. Over five-years, it is estimated that each station would require 13,000 truck trips for hydrogen delivery with an average of 920 miles of travel. Moreover, each station is estimated to dispense approximately 1.1 million kilograms of hydrogen over this time period. Over this period, FirstElement Fuel estimates that each station would provide an overall savings for criteria air pollutant emissions compared to conventional gasoline fueling (see Table 5). This overall savings is also accounting for added criteria pollutants associated with hydrogen fuel truck deliveries and hydrogen production.

If awarded funding, FirstElement Fuel will reach out to a variety of essential stakeholders to engage in outreach and ensure project success. This includes state and regional agencies, elected officials, car dealerships, The Fuel Cell Partnership, and the local communities surrounding each project.

Table 5: FirstElement Fuel Predicted Project-Generated Net Emissions Reduction for Each Station

	Five-Year Operations Net Emissions Reduction
NOx Average per Station (tons)	901
SOx Average per Station (tons)	176
VOC Average per Station (tons)	1,815
CO Average per Station (tons)	11,949
PM10 Average per Station (tons)	31
PM2.5 Average per Station (tons)	58

Source: FirstElement Fuel, Inc

Iwatani Corporation

Iwatani Corporation's (Iwatani) proposed hydrogen refueling station will be installed within existing gasoline/diesel fueling stations, offering FCEV drivers the equivalent service to that of conventional vehicles. The round-trip distance for hydrogen delivery is ten miles. Moreover, the station is expected to have a daily capacity of about 1,400 kilograms of hydrogen with four fueling positions. Over five-years, Iwatani estimates that the station would provide an overall savings for criteria air pollutant emissions compared to conventional gasoline fueling (see Table 6). Moreover, Iwatani does not anticipate significant community impacts from potential increases in traffic as one FCEV counteracts the driving of one fossil fuel vehicle.

If awarded funding, Iwatani will use a combination of digital and physical forms of outreach to notify and collaborate with communities about this project. This includes social media and websites posts, hydrogen fueling demonstrations, local news advertisements, emergency planning, and city meetings. The goals of these outreach efforts are to provide accessible and educational resources, address questions, and provide status updates related to the project.

Table 6: Iwatani Predicted Project-Generated Net Emissions Reduction for Fontana Station

	Five-Year Operations Net Emissions Reduction
PM2.5 (kg)	1,068
HC (kg)	30,856
CO (kg)	347,165
NOx (kg)	25,460

Source: Iwatani Corporation

CHAPTER 3:

Location Analysis

Under CCR Title 13, (CCR section 2343), this LHI report describes projects proposed for Clean Transportation Program funding 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 assess public health-related pollutants, CEC staff does not assess projects requiring only ministerial-level permits in this report.

This LHI report analyzes the project location by applying staff’s application of the Environmental Justice Screening Method (EJSM).⁵ A proposed project location must meet a two-part environmental and demographic standard for staff to identify it as a high-risk community project location. The environmental standard uses California Air Resources Board (CARB) air quality monitoring data on nonattainment⁶ status for areas with a high concentration of air pollutants. The demographic standard uses data from the California Employment Development Department’s *Monthly Labor Force Data*⁷ and the U.S. Census Bureau’s *American Community Survey*⁸ data on age, poverty, race, and unemployment.

Environmental Standard

Based on CARB air quality monitoring data,⁹ all 30 project locations are within nonattainment zones for either ozone, particulate matter¹⁰ 2.5 microns in diameter or less (PM_{2.5}), or particulate matter 10 microns in diameter (PM₁₀). This indicates that there may be existing poor air quality where the proposed projects are located.

Demographic Standard

A project city location must meet a two-part environmental and demographic standard for staff to identify it as a high-risk community project location (see Appendix A). For example, staff finds that the proposed project located in the city of Artesia meets the criteria for a high-risk

5 CARB, *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making*, 2010. (Sacramento, California) Contract authors: Manuel Pastor Jr., Ph.D., Rachel Morello-Frosch, Ph.D., and James Sadd, Ph.D.

6 [Nonattainment area](#) is a geographic area identified by the U.S. EPA or CARB or both as not meeting either National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards CAAQS standards for a given pollutant. See <https://ww3.arb.ca.gov/desig/adm/adm.htm>.

7 Employment Development Department [Labor Force Data](#), <https://www.labormarketinfo.edd.ca.gov/file/lfmonth/countyur-400c.pdf>.

8 U.S. Census Bureau [American Community Survey](#), https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml.

9 See [CARB air quality monitoring data](#), <https://ww3.arb.ca.gov/desig/adm/adm.htm>.

10 *Particulate matter* is unburned fuel particles that form smoke or soot and stick to lung tissue when inhaled. The number following “PM” represents particle size in micrometers.

community project location as it meets the demographic standard of having more than one EJ indicator threshold exceeded (see Table 7). The project location also meets the environmental standard due to existing poor air-quality.

Table 7: EJ Indicators by Project Location City Demographic

	Below Poverty (2017)	Black or African American (2017)	American Indian and Alaska Native (2017)	Asian and Native Hawaiian and Pacific Islander (2017)	Hispanic or Latino Race (2017)	Persons Under 5 Years of Age (2017)	Persons Over 65 Years of Age (2017)	Unemployment (2019)
California	11.1%	5.8%	0.7%	14.5%	38.8%	6.4%	13.2%	4.2%
EJ Indicator Threshold	>11.1%	>30%	>30%	>30%	>30%	≥26.4%	≥33.2%	>4.2%
Aliso Viejo	3.5%	1.8%	0.7%	15.5%	17.6%	7.1%	8.1%	2.5%
Artesia	8.3%	4.1%	0.5%	36.8%*	37.3%*	4.8%	14.7%	3.6%
Baldwin Park	12.5%*	2.2%	1.9%	19.5%	74%*	6.4%	11.2%	4.7%*
Buena Park	11.0%	3.3%	0.8%	29.7%	40%	6.7%	12.1%	3.1%
Burbank	7.2%	2.8%	0.5%	11.7%	24.5%	5.7%	15.1%	5.0%*
Carlsbad	4.8%	1.0%	0.2%	7.8%	14.1%	6.0%	16%	2.9%
City of Industry	9.4%	0.6%	0%	13.5%	63.5%*	11.7%	9.6%	5.2%*
Costa Mesa	9.4%	1.6%	0.4%	9.5%	36.5%*	5.9%	10.4%	2.5%
Cupertino	2.9%	0.6%	0.2%	66.9%*	3.9%	5.1%	13.5%	2.4%
El Cerrito	5.8%	5.3%	0.6%	28.8%	11.3%	5.8%	18.6%	2.4%
Fontana	12.7%*	8.9%	0.7%	6.8%	68.3%*	7.1%	7.2%	3.6%
Fremont	3.2%	3.0%	0.4%	58.3%*	13.5%	6.4%	11.7%	2.5%
Glendale	12.2%*	1.7%	0.2%	16%	18.2%	5.3%	16.5%	4.1%
Long Beach	14.6%*	12.9%	1.2%	14.1%	42.8%*	7.0%	10.7%	4.6%*
Los Altos	2.5%	0.3%	0.2%	28.2%	4.4%	4.6%	19.9%	2.3%

	Below Poverty (2017)	Black or African American (2017)	American Indian and Alaska Native (2017)	Asian and Native Hawaiian and Pacific Islander (2017)	Hispanic or Latino Race (2017)	Persons Under 5 Years of Age (2017)	Persons Over 65 Years of Age (2017)	Unemployment (2019)
Los Angeles	16.1%*	8.9%	0.7%	11.9%	48.7%*	6.2%	11.7%	4.5%*
Los Gatos	2.8%	1.5%	0.1%	14.4%	7.4%	4.2%	19.8%	2.5%
Monrovia	6.6%	5.3%	0.6%	14.2%	41.5%*	5.3%	13.1%	3.7%
Newport Beach	3.9%	0.6%	0.2%	7.8%	8.0%	4.0%	21.8%	2.4%
Ontario	13.6%*	6.0%	0.9%	6.3%	70%	7.1%	8.6%	3.4%
Orange	8.2%	1.5%	0.5%	11.7%	39.4%*	6.2%	11.6%	2.7%
Placentia	5.7%	1.3%	0.7%	17.8%	38.8%*	5.8%	13.8%	2.9%
San Bernardino	26.3%*	14.1%	0.7%	4.7%	64.3%*	8.5%	8.6%	4.8%*
San Diego	9.9%	6.4%	0.4%	17.2%	30%	6.3%	12%	3.0%
San Jose	6.8%	3.0%	0.6%	35.2%*	32.2%*	6.4%	11.9%	2.6%
Torrance	5.4%	2.5%	0.5%	35.9%*	17.4%	5.7%	16.5%	3.6%

Sources: CEC staff, Employment Development Department, and U.S. Census Bureau. *The city/county names in **bold** indicate a high-risk community, while the asterisk (*) next to the percentages indicate which categories exceed the EJ indicator threshold.

Summary

If funded, the proposed projects would result in 16 sites for hydrogen refueling. The new hydrogen refueling sites will increase the use of hydrogen fuel cell vehicles. As more hydrogen fuel cell vehicles enter the market and begin to displace gasoline and diesel vehicles, tailpipe pollutants will decrease significantly.

Based on EJSM standards, staff has identified the projects in Artesia, Baldwin Park, City of Industry, Fontana, Long Beach, Los Angeles, San Bernardino, and San Jose as high-risk community project locations. This indicates that the communities near the proposed project location are at a higher risk of adverse health effects from pollution. However, staff does not anticipate a significant increase in local pollutants and no major construction that would generate criteria emissions or pollutants were identified by the project awardees. Staff's analysis found no indication that there would be adverse community health impacts associated with the projects identified in this LHI report as selected for Clean Transportation Program grant funding. Moreover, a net benefit from these proposed projects may be realized for these

communities by reducing harmful criteria pollutants from refueling FCEVs and replacing gasoline vehicles in the area.

GLOSSARY

AIR QUALITY IMPROVEMENT PROGRAM - Established by the California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007 (AB 118, Statutes of 2007, Chapter 750), is a voluntary incentive program administered by CARB to fund clean vehicle and equipment projects, research of biofuels production.

CALIFORNIA CODE OF REGULATIONS - The official compilation and publication of the regulations adopted, amended or repealed by state agencies pursuant to 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 - A statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate 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.

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 (O₃), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulate matter (PM₁₀ and PM_{2.5}).

DISADVANTAGED COMMUNITIES – 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 hazard present.

ENVIRONMENTAL JUSTICE - 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 – A screening approach for combining environmental and demographic indicators to inform agency outreach and engagement practices regarding environmental justice.

FUEL CELL ELECTRIC VEHICLE (FCEV) -- A zero-emission vehicle that runs on compressed hydrogen fed into a fuel cell "stack" that produces electricity to power the vehicle.

GRANT FUNDING OPPORTUNITY – Where the California Energy Commission offers applicants an opportunity to receive grant funding for projects meeting the solicitation requirements.

LOCALIZED HEALTH IMPACTS – Potential health impacts to communities.

PARTICULATE MATTER - 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 particle combustion products.

ZERO-EMISSION VEHICLE – A vehicle that produces no pollutant emissions from the onboard source of power.

LIST OF ACRONYMS

AB	Assembly Bill
AQIP	Air Quality Improvement Program
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CO	carbon monoxide
DAC	disadvantaged community
EJ	environmental justice
EJSM	Environmental Justice Screening Method
FCEV	fuel cell electric vehicle
GFO	grant funding opportunity
HC	hydrocarbons
LHI	Localized Health Impact
NOPA	notice of proposed award
NOx	nitrogen oxide
OEHHA	Office of Environmental Health Hazard Assessment
PM _{2.5}	particulate matter; 2.5 microns or smaller in diameter
PM ₁₀	particulate matter; 10 microns in diameter
SB	Senate Bill
SOx	sulfur oxide
U.S. EPA	United States Environmental Protection Agency
VOC	volatile organic compound
ZEV	zero-emission vehicle

APPENDIX A:

Localized Health Impacts Report Method

This LHI report assesses the potential health impacts on communities from projects proposed to receive Clean Transportation Program funding. This LHI report is prepared under the *California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1 (CCR section 2343)*:

“(6) Localized health impacts must be considered when selecting projects for funding. The funding agency must consider EJ 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 the 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.”

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. This LHI report includes staff’s application of the EJSM developed by the U.S. EPA to help identify projects in areas where social vulnerability indicators, high exposure to pollution, and greater health-risks are present.

CEC staff identifies high-risk community project locations using data from CARB, the U.S. Census Bureau, and other public agencies. Staff analyzes these data to assign EJ indicators for each project location specified in the LHI report. The proposed project location must meet a two-part standard as follows:

Part 1 – Environmental Standard:

- Communities located within an air quality nonattainment zone for ozone, PM 2.5, or PM 10, as designated by CARB for criteria pollutants.

Part 2 – Demographic Standard:

- Communities having more than one of the following EJ indicators for (1) minority, (2) poverty, (3) unemployment, and (4) age. The EJ indicator thresholds is defined by staff as:
 - 1) A minority subset represents more than 30 percent of a given city’s population.
 - 2) A city’s poverty level exceeds the state average poverty level.
 - 3) The city (or county if city data is unavailable) unemployment rate exceeds the state average unemployment rate.

The percentage of people living in a city who are younger than 5 years of age or older than 65 years of age is 20 percent higher than the state average for persons under 5 years of age or over 65 years of age.