



**CALIFORNIA
ENERGY COMMISSION**



**CALIFORNIA
NATURAL
RESOURCES
AGENCY**

California Energy Commission

STAFF REPORT

Localized Health Impacts Report

**Addendum 1 for Selected Project
Awarded Funding Under Solicitation
GFO-19-602 — Hydrogen Refueling
Infrastructure**

June 2023 | CEC-600-2020-006-AD1



California Energy Commission

Benjamin Tuggy
Primary Author

Mark Johnson
Commission Agreement Manager

Charles Smith
Branch Manager
TRANSPORTATION INTEGRATION AND PRODUCTION BRANCH

Hannon Rasool
Director
FUELS AND TRANSPORTATION DIVISION

Drew Bohan
Executive Director

DISCLAIMER

Staff members of the California Energy Commission (CEC) prepared this report. As such, it does not necessarily represent the views of the CEC, its employees, or the State of California. The CEC, the State of California, its employees, contractors, and subcontractors make no warrant, express or implied, and assume no legal liability for the information in this report; nor does any party represent that the uses of this information will not infringe upon privately owned rights. This report has not been approved or disapproved by the CEC nor has the Commission passed upon the accuracy or adequacy of the information in this report.

ADDENDUM 1

The Localized Health Impacts Report (LHI Report) for Grant Solicitation GFO-19-602 was posted November 6, 2020 (CEC-600-2020-006).¹ GFO-19-602 sites are split into multiple batches, with the initial batch being installed first. On May 12, 2023, the California Energy Commission (CEC) released a revised notice of proposed awards (NOPA)² describing new and updated Batch 2 sites for the grant awardee FirstElement Fuel, Inc. (FirstElement).

This LHI Report addendum uses the same overall approach as the original report, with one mathematical adjustment, to assess the localized health impacts for a project with location changes. (In some cases, changes are described in an “LHI Report Revision.” When project changes require new location analysis, however, an “LHI Report Addendum” is released with a new 30-day public comment period.)

FirstElement proposes to cancel one planned hydrogen refueling station location (at 3402 Foothill Boulevard in Glendale) and add multiple new Batch 2 locations. The new locations are described in Table 1, along with environmental justice (EJ) indicators.

Some previously planned sites were reassigned to other batches before the most recent revised NOPA was released. This did not substantially affect the LHI analysis. Four sites, however, were moved from Batch 2 to the initial batch but were not analyzed for LHIs before now. These four sites are included in Table 1.

Table 1: New and Updated Project Locations with EJ Indicators

Batch	Site Location	EJ Indicators for Location
Initial	2911 Petit Street, Camarillo, CA 93012	Age, Minority
Initial	4280 Foothill Boulevard, Oakland, CA 94601	Poverty
Initial	475 North Allen Avenue, Pasadena, CA 91106	Minority, Poverty
Initial	3505 Central Avenue, Riverside, CA 92506	Minority, Poverty
2	2121 Harbor Boulevard, Ventura, CA 93001	Age, Minority
2	67 Moraga Way, Orinda, CA 94563	Age

1 Comiter, Michael. 2020. [Localized Health Impacts Report: For Selected Projects Awarded Funding Through the Clean Transportation Program Under Solicitation GFO-19-602 Hydrogen Refueling Infrastructure](https://www.energy.ca.gov/publications/2020/localized-health-impacts-report-selected-projects-awarded-funding-through-clean). California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2020-006. Accessed May 17, 2023. Available at <https://www.energy.ca.gov/publications/2020/localized-health-impacts-report-selected-projects-awarded-funding-through-clean>.

2 Dyer, Phil. 2023. “Fourth Revised Notice of Proposed Awards.” California Energy Commission. Accessed May 18, 2023. [Cover letter](https://www.energy.ca.gov/sites/default/files/2023-05/GFO-19-602_Fourth_Revised_NOPACover_Letter_%202023-05-12_ada.docx) available at https://www.energy.ca.gov/sites/default/files/2023-05/GFO-19-602_Fourth_Revised_NOPACover_Letter_%202023-05-12_ada.docx, and [table of awardees](https://www.energy.ca.gov/sites/default/files/2023-05/GFO-19-602_Fourth_Revised_NOPA_Table_2023-05-12_ada.xlsx) available at https://www.energy.ca.gov/sites/default/files/2023-05/GFO-19-602_Fourth_Revised_NOPA_Table_2023-05-12_ada.xlsx.

Batch	Site Location	EJ Indicators for Location
2	10867 Santa Monica Boulevard, Los Angeles, CA 90025	Minority, Poverty, Unemployment
2	10 Sage Street, Vallejo, CA 94589	Unemployment
2	5500 South Street, Lakewood, CA 90713	Minority
2	1898 N Capitol Avenue, San Jose, CA 95132	Minority
2	2595 N Texas Street, Fairfield, CA 94533	Age
2	9409 Alondra Boulevard, Bellflower, CA 90706	Minority, Poverty, Unemployment
2	3707 Union Avenue, San Jose, CA 95124	Minority
2	1331 Redmond Avenue, San Jose, CA 95120	Minority
2	12520 Graham Street, Moreno Valley, CA 92553 (Southeast corner of intersection with Sunnymead Boulevard)	Minority, Poverty, Unemployment
2	4785 Bailey Loop, McClellan Park, CA 95652	Poverty
2	7810 National Drive, Livermore, CA 94550	(None)
2	4163 S Chestnut Avenue, Fresno, CA 93725	Age, Minority, Poverty, Unemployment
2	939 San Gabriel Boulevard, Rosemead, CA 91770	Age, Minority, Poverty
2	E Vista Chino & N Gene Autry Trail, Palm Springs, CA 92262 (Northwest corner of intersection)	Age, Poverty

Source: CEC staff

Air Quality and EJ Indicators

High-risk community project locations are identified using data from the California Air Resources Board (CARB), the U.S. Census Bureau, and other public agencies. The data are analyzed to assign EJ indicators for each project location, as shown in Table 1 with further detail in Table 2. 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 less (PM_{2.5}), or particulate matter 10 microns in diameter or less (PM₁₀). The environmental standard uses CARB air quality monitoring data on nonattainment³ status for these pollutants.

³ A *nonattainment* area is a geographic area that does not meet state and/or national Ambient Air Quality Standards for a given pollutant. See “[Maps of State and Federal Area Designations](https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations).” California Air Resources Board. Accessed May 24, 2023. Available at <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>.

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. Note: This mathematical definition has been clarified from the full report, which used a different interpretation of "20 percent higher."
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 estimates⁴ on race, ethnicity, age, and poverty, and the California Employment Development Department's monthly data⁵ on unemployment. Specifically, this LHI Report Addendum uses both city-level⁶ and county-level⁷ unemployment data. Unemployment data are not seasonally adjusted.

Analysis Results

Using 2022 data,⁸ the proposed site locations meet the environmental standard since they are within a nonattainment zone for ozone, PM_{2.5}, or PM₁₀. This finding indicates that there may be existing poor air quality around the proposed sites.

Eleven out of the 18 cities where proposed sites are located also meet the demographic standard since they exceed the threshold for two or more EJ indicators (Table 2). Therefore, these 11 cities are considered high-risk communities.

In Table 2, 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.

4 American Community Survey codes DP05 and S1701 were used to find data. See "[Explore Census Data](#)." U.S. Census Bureau. Accessed May 24, 2023. Available at <https://data.census.gov/cedsci/>.

5 Overview page with data from most recent and previous months: "[Unemployment Rate and Labor Force](#)." Employment Development Department. Accessed May 24, 2023. Available at <https://labormarketinfo.edd.ca.gov/data/unemployment-and-labor-force.html>.

6 Most recent data only: "[Monthly Labor Force Data for Cities and Census Designated Places \(CDP\)](#)." Employment Development Department. Accessed May 24, 2023. Available at <https://labormarketinfo.edd.ca.gov/file/lfmonth/allsubs.xls>.

7 Most recent data only: "[Monthly Labor Force Data for Counties](#)." Employment Development Department. Accessed May 24, 2023. Available at <https://labormarketinfo.edd.ca.gov/file/lfmonth/countyur-400c.pdf>.

8 "[Maps of State and Federal Area Designations](#)." California Air Resources Board. Accessed May 24, 2023. Available at <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>.

Table 2: 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)	Unemployment (April 2023)
California	0.9%	14.9%	5.7%	39.5%	0.4%	6.0%	14.4%	12.3%	4.3%
EJ Indicator Threshold	30%	30%	30%	30%	30%	7.2%	17.3%	12.3%	4.3%
Bellflower†	0.8%	11.5%	12.8%	59.0%*	0.6%	6.2%	10.7%	12.7%*	4.7%*
Camarillo†	0.8%	9.5%	2.8%	30.6%*	0.5%	6.0%	20.4%*	7.6%	2.9%
Fairfield	0.6%	17.7%	15.9%	29.3%	1.2%	7.4%*	13.0%	8.8%	4.1%
Fresno†	1.2%	14.2%	6.8%	50.0%*	0.2%	7.7%*	11.6%	22.9%*	5.3%*
Lakewood	0.6%	18.4%	8.6%	34.3%*	0.8%	6.0%	13.8%	5.6%	4.0%
Livermore	0.6%	14.8%	1.8%	22.8%	0.6%	6.9%	13.5%	4.0%	2.8%
Los Angeles†	0.9%	11.7%	8.6%	48.4%*	0.2%	5.5%	12.9%	16.6%*	4.6%*
McClellan Park	0.0%	7.4%	20.3%	21.7%	0.0%	5.0%	4.4%	47.9%*	3.9%
Moreno Valley†	0.7%	5.3%	17.9%	60.4%*	0.4%	6.7%	9.3%	13.5%*	4.6%*
Oakland	1.0%	15.7%	22.0%	27.2%	0.5%	6.0%	13.5%	13.5%*	3.8%
Orinda	0.1%	14.6%	0.6%	6.0%	0.1%	4.4%	22.3%*	2.1%	2.0%
Palm Springs†	0.9%	5.1%	4.9%	24.4%	0.2%	2.5%	32.4%*	14.5%*	3.4%
Pasadena†	0.4%	17.9%	7.8%	36.1%*	0.1%	6.0%	16.1%	13.2%*	4.1%
Riverside†	0.8%	8.8%	5.9%	54.9%*	0.4%	6.0%	10.6%	12.9%*	3.9%
Rosemead†	0.9%	64.4%*	0.5%	30.1%*	0.0%	5.5%	17.8%*	12.5%*	4.1%
San Jose†	0.8%	37.5%*	3.0%	31.0%*	0.5%	5.7%	13.2%	7.7%	3.1%
Vallejo	0.9%	23.3%	17.9%	28.8%	0.9%	5.2%	16.3%	11.0%	4.5%*
Ventura†	1.0%	4.3%	1.8%	36.3%*	0.1%	5.0%	17.6%*	9.5%	3.3%

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

Location Analysis Summary

The proposed project locations are assessed according to the original LHI method, with one mathematical adjustment. The assessment shows that 11 of the 18 cities where proposed sites will be located are high-risk communities. However, staff does not expect a significant increase in local air pollution. Instead, staff anticipates that community impacts will remain positive in terms of cleaner air and reduced greenhouse gases.

Public Comment

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