California Energy Commission

STAFF REPORT

LOCALIZED HEALTH IMPACTS REPORT

For Selected Projects Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation PON-09-006

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CALIFORNIA ENERGY COMMISSION

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PREFACE

The increased use of alternative and renewable fuels supports the state's commitment to curb greenhouse gas emissions, reduce petroleum use, improve air quality, and stimulate the sustainable production and use of biofuels within California. Alternative and renewable transportation fuels include electricity, natural gas, biomethane, propane, hydrogen, ethanol, renewable diesel, and biodiesel fuels. State investment is needed to fill the gap and fund the differential cost of these emerging fuels and vehicle technologies.

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the Alternative and Renewable Fuel and Vehicle Technology Program (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." The Energy Commission has an annual program budget of approximately $100 million.

The statute also directs the Air Resources Board to develop guidelines that apply to the program to ensure the programs complement efforts to improve air quality. The Air Quality Guidelines were approved in 2008. California Code of Regulations, Title 13, Chapter 8.1, Section 2343(c)(6) contains the requirement for the Energy Commission, being the funding agency, to analyze the localized health impacts of projects funded by the program that require a permit.

ABSTRACT

California Code of Regulations, Title 13, Chapter 8.1, Section 2343(c)(6) requires the Energy Commission to consider the localized health impacts and environmental justice when selecting projects for funding. For each funding cycle, the Energy Commission is required to analyze localized health impacts for projects proposed for program funding that require a permit.

This report is a review of the projects submitted under the Alternative and Renewable Fuels Infrastructure grant solicitation and proposed for funding under the Alternative and Renewable Fuel and Vehicle Technology Program for Fiscal Year 2009/2010. The report includes a description of the projects, criteria emissions data for the fuels associated with the projects and demographic data for the areas where the projects will be located, and an analysis of the impacts of these projects in communities with the most significant exposure to air contaminants or localized air contaminants. Future editions of this report and its aggregate location analysis will include information about projects approved in previous funding cycles including those projects for which specific location information was not previously available.

The specific projects analyzed in this report are:

- ClipperCreek Update Existing Electric Vehicle Infrastructure to SAE-J1772™
- Foothill Transit Ecoliner Electric Bus Demonstration Project
- Electric Vehicle Connect, Los Angeles County Metropolitan Transportation Authority Public Plug-in Vehicle Charge Stations at Metro Transit Locations
- City of Reedley Central Valley Transportation Center (project description appears in Electric Vehicle and Natural Gas Chapters)
- The Association of Bay Area Governments Bay Area Electric Vehicle Corridor Project: Phase I Electric Vehicle Supply Equipment Development
- Department of General Services and Propel California Low Carbon Fuels Infrastructure Investment Initiative
- Waste Management Sun Valley Liquefied Natural Gas/Liquefied Compressed Natural Gas Refueling Station
- Bay Area Air Quality Management District Oakland Liquefied Natural Gas Infrastructure Project
- South Coast Air Quality Management District Ontario 76 Compressed Natural Gas Infrastructure Installation
- Sacramento Regional Transit District Bus Maintenance Facility 2 - Compressed Natural Gas Fueling Equipment
- Border Valley Trading Coachella Valley Regional Liquefied Natural Gas Infrastructure Project
- Ecofinal Alternative Fuel Compressed Natural Gas Station

- South Coast Air Quality Management District Alternative and Renewable Fuel and Vehicle Technology Program
- City of Lemoore Compressed Natural Gas Fueling Station
- San Diego Metropolitan Transit System Upgrade Compressed Natural Gas Fueling Station Serving the San Diego Urban Area
- Propel Fuels California Low Carbon Fuels Infrastructure Investment Initiative
- Community Fuels Expanding Access to Renewable Fuels - Port of Stockton Terminal
- Pearson Fuels Two Biodiesel Blend Terminals and Tackling the Underground Tank Problem
- Western States Oil Bulk Biomass Dispenser Adjacent to San Jose Pipeline Terminal

Keywords: California Energy Commission, AB 118, localized health impacts, environmental justice, funding cycle, emissions, criteria emissions, air quality, greenhouse gas emissions, reduce petroleum use, improve air quality, alternative fuel, electricity, natural gas, biomethane, propane, hydrogen, ethanol, renewable diesel, biodiesel fuels

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TABLE OF CONTENTS

CHAPTER 1:
Background

The California Energy Commission is preparing to approve a series of projects through the Alternative and Renewable Fuel and Vehicle Technology Program (Health and Safety Code Section 44272). The Energy Commission developed this report to comply with the Air Quality Guidelines.[1] The section applies to all projects that require a permit and reads:

> (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.

The Air Quality Guidelines section requiring this analysis was put in place to ensure that, by funding the projects, the Energy Commission is both analyzing the potential beneficial impacts to communities with the most significant exposure to air contaminants, and not supporting projects that result in disproportionate health impacts in communities with low-income or minority populations.

For the current program funding cycle (Fiscal Year [FY] 2009/10), there are 28 projects proposed for Energy Commission approval that require a permit. Six of these projects were analyzed in the first localized health impacts report published on May 6, 2010. Four were analyzed in the second report published on May 18, 2010.

[1] Regulation for the AB 118 Air Quality Guidelines for the Air Quality Improvement Program and the Alternative and Renewable Fuel and Vehicle Technology Program, California Code of Regulations, Title 13, Chapter 8.1, Section 2343(c)(6), 2008

Table 1 provides a summary of the projects by solicitation (Program Opportunity Notice).

TABLE 1: Count of Awards by Solicitation for FY 2009/2010

Project Type	Program Opportunity Notice	Number of Projects
Electric Vehicle (EV) charging stations	PON-08-010	4
Natural Gas (NG) fueling stations	PON-08-010	1
Ethanol (E-85) fueling stations	PON-08-010	1
Biomethane production	PON-09-003	4
Alternative and Renewable Fuel Infrastructure	PON-09-006	18

Currently, there are 18 projects proposed for Energy Commission approval that require a permit: three biodiesel infrastructure projects, 10 natural gas fueling station projects (some with multiple stations), one ethanol (E-85) fueling station proposal (with multiple stations), and four EV charging station projects (with multiple stations). Many of the proposed EV charging stations will be upfits of existing EV charging stations, further reducing cumulative impacts.

The following is a discussion of the localized health impacts of the projects being proposed for Energy Commission approval. Energy Commission staff plans to present the proposed projects for approval at Business Meetings (subject to the Warren-Alquist Open Meeting Act) in June and July 2010.

This analysis is not intended as a substitute for the California Environmental Quality Act (CEQA) process. The application of CEQA will take a more detailed look at the potential environmental impacts of the proposed projects. Instead, this report is intended to collect available information about the potential beneficial and adverse air quality impacts of the projects that the Energy Commission is funding through the Alternative and Renewable Fuel and Vehicle Technology Program, and provide an aggregate, narrative analysis of localized health impacts of those projects. Some projects do not have precise locations identified at the time the proposal was submitted impacting the Energy Commission's ability to evaluate the aggregate locations in detail. The location of each project will be tracked by Energy Commission staff as the project progresses, and commented on in the aggregate analysis in future editions of this report.

In addition, the Energy Commission is mandated by the Air Quality Guidelines to track each project's progress through the CEQA process and ensure there is a commitment in place from the project proponent to complete all mitigation measures required by the permitting agency prior to a project receiving the first funding allocation.

Project Overviews

The following is an overview, presented by fuel type, of the projects proposed for award. The overviews include a project description, information on the existing site, discussion on the potential health impacts related to air pollutants, and any outreach efforts explicitly identified in the project proposals.

Demographic data for the known or planned project locations is provided in Table 7. Program staff collected data on ethnicity, age, and income for the city where the project will be located to identify communities with higher minority populations, lower incomes, and higher sensitive groups based on age. For the purposes of this discussion, program staff identified sensitive populations as fewer than five years of age and over 65 years of age. While this demographic information is important to provide a snapshot of the area where the projects are located, it is less relevant because the projects proposed for funding are found to have no adverse health impacts.

Staff also reviewed results from the Environmental Justice Screening Method (EJSM)[2] to identify projects that are located in areas with social vulnerability indicators and the greatest exposure to air pollution and associated health risks. These results are available for Southern California. The Air Resources Board applied the method[3] to the Bay Area, San Joaquin Valley, and Desert regions, however; the results only consider income among the list of social vulnerability indicators.

[2] *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability into Regulatory Decision-Making* 2010. Manuel Pastor Jr., Ph.D., Rachel Morello-Frosch, Ph.D., James Sadd, Ph.D.

[3] *Proposed Screening Method for Low-Income Communities Highly Impacted by Air Pollution for AB 32 Assessments* 2010.

CHAPTER 2:
Electric Charging Infrastructure

Project Name

ClipperCreek Update Existing EV Infrastructure to SAE-J1772™

Project Description

ClipperCreek will update 300 existing EV charging stations to the new SAE-J1772™ standard. While installing infrastructure with the new SAE-J1772™ connector and communications protocol, ClipperCreek will work with EV Connect to ensure existing EV drivers are not stranded by leaving in-place Inductive and Avcon paddle infrastructure where it is being utilized by current EV drivers. Additionally, ClipperCreek will install meters, as directed by the local utility, so that the infrastructure usage can be monitored and eventually controlled (Smart Grid) by the local utility.

Project Site

While specific sites are not identified in the project proposal, ClipperCreek identified the following regions for the charging station updates: San Francisco/Bay Area, Sacramento area, Ventura, Los Angeles, Orange County, Riverside, San Bernardino, San Diego, Santa Barbara, and San Luis Obispo.

The infrastructure is planned for installation in non-attainment areas for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants.

Potential Impacts

The vehicles that will be using the EV charging stations will result in criteria emission reductions.

The EV charging stations will not have any health impacts for either the general population or sensitive populations residing in the areas where EV charging stations will be installed. Rather, the project is expected to alleviate air pollutant exposure in the region as EVs replace dirtier gasoline and diesel vehicles and become a significant portion of the vehicle population (see Table 4).

Furthermore, many of the new charging stations will replace old EV charging stations. At these sites, the Energy Commission anticipates no net adverse impact in air pollutants or health conditions related to the electric charging infrastructure.

Outreach Efforts

The local air district does not typically require permits for electric charging stations as they are not considered to be new emission sources. However, the air district adheres to federal and state regulations to notice residents within 1,000 feet of the site if, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name:

Foothill Transit Ecoliner Electric Bus Demonstration Project (EEBDP)

Project Description

Foothill Transit will build two EV quick charge stations to support 12 electric buses, three of which are already purchased. The project is for a "halo" inductive charging system. This charging system recharges the battery from 10 percent to 95 percent in 10 minutes or less. The project will provide information on battery life and performance with this type of charging.

Project Site

The EV infrastructure will be installed at the Foothill Transit facility at 100 West Commercial in Pomona.

The infrastructure is planned for installation in the South Coast Air Basin which is a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper cites Pomona as a low-income area exposed to the highest levels of measured air pollution. There are 203 schools or daycares, and 83 health care facilities within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Pomona. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

The infrastructure will support the deployment of 12 electric buses which are expected to alleviate air pollutant exposure in the region as electric busses replace dirtier diesel vehicles and become a significant portion of the vehicle population.

Similar to the other EV charging station projects, the Foothill Transit project will have no health impact on the general population or sensitive populations around the project sites.

Outreach Efforts

The South Coast Air Quality Management District does not typically require permits for electric charging stations as they are not considered to be new emission sources. However, the air district adheres to federal and state regulations to notice residents within 1,000 feet of the site if, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name:

EV Connect, Los Angeles County Metropolitan Transportation Authority Public Plug-in Vehicle Charge Stations at Metro Transit Locations

Project Description

This project will upgrade and expand the plug-in electric vehicle (PEV) charge network at transit locations within the Los Angeles County Metropolitan Transit Authority service area by installing 20 stations (four are upgrades) at five end-of-the-line parking lots of transit facilities.

Project Site

Table 2 shows the Metro Transit locations where the charging stations will be installed and the number of schools, daycares, or health care facilities within a one-mile radius of the project sites:

TABLE 2: Proximity of Metro Transit Locations to Schools, Daycares, and Healthcare Facilities

Metro Transit Location		Schools or Daycares	Health Care Facilities
1	Union Station, 800 North Alameda Street, Los Angeles	450	355
2	LAX/Aviation, 11500 Aviation Boulevard, Los Angeles	301	119
3	Universal City, Lankershim Blvd and Campo de Cahuenga Way, Los Angeles	227	190
4	Canoga, 6610 Canoga Avenue, Canoga Park	186	80
5	Sierra Madre Villa, 149 N Halstead, Pasadena	268	152

The infrastructure is planned for installation in the South Coast Air Basin which is a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper cites the following areas as a low-income area exposed to the highest levels of measured air pollution: Los Angeles (Union Station, Aviation Station) and Pasadena (Sierra Madre Villa Station).

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in the project locations. Combined with the communities' high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

The vehicles that will be using the EV charging stations will result in significant criteria emission reductions.

The EV charging stations will not have any health impacts for either the general population or sensitive populations residing in the areas where it will be installed. Rather, the project is

expected to alleviate air pollutant exposure in the region as PEVs replace dirtier gasoline and diesel vehicles and become a significant portion of the vehicle population (see Table 4 - in Chapter 6).

The Energy Commission anticipates no net adverse impact in air pollutants or health conditions related to the electric charging infrastructure.

Outreach Efforts

The South Coast Air Quality Management District does not typically require permits for electric charging stations as they are not considered to be new emission sources. However, the air district adheres to federal and state regulations to notice residents within 1,000 feet of the site if, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

City of Reedley Central Valley Transportation Center (CVTC) – EV Charging Stations

Project Description

This project would fund 16 Level I charging stations available to project partners and the public, 25 Level II solar carport charging stations for hybrid electric school busses at the CVTC. The CVTC will house, repair, and maintain a green fleet of vehicles. The facility will include a learning center and education center component to train current and future vehicle technicians on the latest technologies. Program funding will be limited to the compressed natural gas (CNG) and EV fueling infrastructure in the project. This fueling infrastructure is required to expand the area's interest in alternative fuel vehicles. The CVTC will support the state of California goals for using clean renewable power generation (solar) and achieving grid neutral educational facilities. The San Joaquin Valley Air Pollution Control District will be the project manager for this effort.

Project Site

The station will be installed at 20346 East Huntsman in Reedley.

The station will be located in the San Joaquin Valley Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper cites Reedley as a low-income area exposed to the highest levels of measured air pollution. There are 29 schools or daycares, and nine health care facilities within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Reedley. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support the rollout of electric vehicles. As shown in Table 4, electric drive results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to gasoline.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as EVs replace gasoline vehicles (see Table 4).

Outreach Efforts

The San Joaquin Valley Air Pollution Control District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name:

The Association of Bay Area Governments (ABAG) Bay Area EV Corridor Project: Phase I Electric Vehicle Supply Equipment (EVSE) Development

Project Description

The Bay Area EV Corridor Project mission is to establish the greater San Francisco Bay Area as the EV Capital of the United States by accelerating the deployment of EV-ready infrastructure and EV-friendly policies and incentives. This project proposal is to install 337 EV charge sites, most with dual cordset capabilities, thereby providing a total of 540 charge points, of which 407 charge points are at the 240 volt level, and 133 charge points are at the 110 volt level. Energy Commission funding will cover approximately one quarter of the proposed charging points.

Project Site

The EV infrastructure will be installed in several Bay Area cities and counties, including: Alameda County, Contra Costa County, Santa Clara County, City of San Jose, Palo Alto, Santa Cruz County, San Benito County, and Monterey County. The Energy Commission will work with ABAG to determine priority locations for the charging infrastructure as the full funding amount requested is not available.

The infrastructure is planned for installation in non-attainment areas for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants.

Potential Impacts

The infrastructure will support the deployment of light-duty electric vehicles. The project is expected to alleviate air pollutant exposure in the region as EVs replace dirtier gasoline vehicles and become a significant portion of the vehicle population.

Similar to the other EV charging station projects, the ABAG project will have no adverse health impact on the general population or sensitive populations around the project sites.

Outreach Efforts

The Bay Area Air Quality Management District does not typically require permits for electric charging stations as they are not considered to be new emission sources. However, the air district adheres to federal and state regulations to notice residents within 1,000 feet of the site if, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

CHAPTER 3:
Compressed Natural Gas/Liquefied Natural Gas (CNG/LNG) Infrastructure

Project Name

Waste Management Sun Valley LNG/LCNG Refueling Station

Project Description

Waste Management and project partners will build a public access liquefied natural gas (LNG)/liquefied to compressed natural gas (LCNG) refueling station to support their growing natural gas refuse collection fleet. This project will be located at the second largest landfill in the South Coast Air Basin and will therefore also provide a convenient and affordable source of low carbon fuel for the approximate 550 heavy-duty refuse trucks that will make daily trips to the landfill and future transfer station. Waste Management's long term objective is to partner with the High Mountain Fuels Biomethane Production Plant to produce renewable LNG from the recovered landfill gas.

Project Site

The station will be installed at the Sun Valley Landfill at 9227 Tujunga Avenue in Sun Valley.

The station will be located in the South Coast Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not include the Sun Valley area as a low-income area exposed to the highest levels of measured air pollution. There are 234 schools or daycares, and 106 health care facilities within a one-mile radius of the project site.

Potential Impacts

This project will support the existing heavy-duty natural gas refuse truck fleet. The heavy-duty vehicle sector represents a large portion of the total transportation emissions. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG and LNG trucks replace diesel vehicles (see Table 5 – in Chapter 6).

Outreach Efforts

The South Coast Air Quality Management District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

Bay Area Air Quality Management District (BAAQMD) Oakland LNG Infrastructure Project

Project Description

BAAQMD has partnered with Clean Energy to construct and operate a publicly available retail LNG station in Oakland comprised of two LNG dispensers and a 15,000 gallon storage tank. The site represents a strategic location for port-based drayage truck operations and goods movement at the Port of Oakland. The project will expand the network of LNG stations in northern California and demonstrate the environmental and economic advantages of natural gas fuels for the drayage industry in a large port setting.

This project will provide the first LNG station at the Port.

Project Site

The station will be installed at the Port of Oakland at 205 Brush Street in Oakland. This station will be located at the site of an existing CNG fueling station.

This station will be located in the San Francisco Bay Area Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper cites the West Oakland area as a low-income area exposed to the highest levels of measured air pollution. There are 233 schools or daycares, and 119 health care facilities within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in West Oakland. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support existing heavy-duty natural gas fleets, including 25 new drayage trucks funded by the BAAQMD, and may be influential to fleets considering natural gas for an alternative fuel. The heavy-duty vehicle sector represents a large portion of the total transportation emissions. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as LNG trucks replace diesel vehicles (see Table 5).

Outreach Efforts

The Bay Area Air Quality Management District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

South Coast Air Quality Management District (SCAQMD) Ontario 76 CNG Infrastructure Installation

Project Description

The SCAQMD is proposing to install four CNG dispensers at an existing and strategically located public gas station in the City of Ontario. The station identified for this installation is located directly outside the Ontario Airport, making it an ideal fueling resource for airport fleet vehicles.

Project Site

The dispensers will be installed at an existing 76 fueling station at 1850 East Holt Avenue in Ontario.

The station will be located in the South Coast Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper cites Ontario as a low-income area exposed to the highest levels of measured air pollution. There are 122 schools or daycares, and 76 health care facilities within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Ontario. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support existing natural gas vehicles and may be influential to fleets and consumers considering natural gas for an alternative fuel. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG replaces gasoline and diesel vehicles (see Table 5).

Outreach Efforts

The South Coast Air Quality Management District typically requires a permit for the installation of natural gas fuel dispensers. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

Sacramento Regional Transit District Bus Maintenance Facility 2 - Compressed Natural Gas Fueling Equipment

Project Description

Sacramento Regional Transit District will install three 1,500 standard cubic feet per minute (SCFM) CNG dispensers at their bus maintenance facility to support 40 buses. There is a projected 150 percent increase in future transit service needs and these dispensers are needed to accommodate growth in bus services. The fueling station will also be available to Twin Rivers Unified School District and neighboring transit agencies. The applicant has prepared an Initial Study and Mitigated Negative Declaration under CEQA.

Project Site

The station will be installed at the McClellan Business Park at 3701 Dudley Boulevard in North Highlands.

The station will be located in the Sacramento Valley Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not cite the Sacramento area as a low-income area exposed to the highest levels of measured air pollution. There are 176 schools or daycares, and 62 health care facilities within a one-mile radius of the project site.

Potential Impacts

This project will support the nearby natural gas transit and school bus fleets. As a transit application, the project also has the potential to reduce vehicle miles traveled in single occupancy vehicles. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG busses replace diesel vehicles (see Table 5).

Outreach Efforts

The Sacramento Metropolitan Air Quality Management District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

Border Valley Trading Coachella Valley Regional LNG Infrastructure Project

Project Description

Border Valley Trading (BVT) will build a public access LNG refueling station along the I-10 corridor, in the City of Palm Springs. This station will support BVT and Hayday Farms (HDF) daily truck operations to the Port of Long Beach for agricultural exports. This station will offer 24/7 public access for LNG fueling along the I-10 corridor between Phoenix and Los Angeles, which is a well-travelled route for interstate trucks.

Project Site

The station will be installed at 680 West Garnet Avenue in Palm Springs. The site is vacant land owned by BVT.

These stations will be located in the Salton Sea Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not cite the Palm Springs area as a low-income area exposed to the highest levels of measured air pollution. There are 15 schools or daycares, and 13 health care facilities within a one-mile radius of the project site.

Potential Impacts

This project will support existing heavy-duty natural gas fleets and may be influential to fleets considering natural gas for an alternative fuel. The heavy-duty vehicle sector represents a large portion of the total transportation emissions. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as LNG trucks replace diesel vehicles (see Table 5).

Outreach Efforts

The South Coast Air Quality Management District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

Ecofinal Alternative Fuel CNG Station

Project Description

Ecofinal is expanding the alternative fueling capability of a station at their headquarters in the city of Los Angeles. This proposal is for the installation of three 100 SCFM pumps at an existing propane and biodiesel fueling station. The station will be publicly accessible and along a major corridor (I-5 and 134 freeways).

Project Site

The station will be installed at 5440 W. San Fernando Road in Los Angeles.

The station will be located in the South Coast Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not cite this area as a low-income area exposed to the highest levels of measured air pollution. There are 283 schools or daycares, and 202 health care facilities within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in the project location. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support existing heavy-duty natural gas fleets and may be influential to fleets considering natural gas for an alternative fuel. The heavy-duty vehicle sector represents a large portion of the total transportation emissions. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG trucks replace diesel vehicles (see Table 5).

Outreach Efforts

The South Coast Air Quality Management District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

SCAQMD Alternative and Renewable Fuel and Vehicle Technology Program

Project Description

The project will build 10 CNG and LNG stations in Newport Beach (CNG), Fontana (LNG), San Juan Capistrano (CNG), Hollywood (CNG), USC Coliseum (CNG), Manhattan Beach (CNG), Torrance (CNG), El Monte (CNG), Fullerton (CNG), and Palm Springs (LNG). Fueling will be made available to light-, medium-, and heavy-duty vehicles. Approximately 500 LNG trucks for the Ports of Los Angeles and Long Beach will have access to the stations. This project is proposed by the South Coast Air Quality Management District.

Project Site

Table 3 shows the station locations and the number of schools, daycares, or health care facilities within a one-mile radius of the project sites.

TABLE 3: Proximity of Metro Transit Locations to Schools, Daycares, and Healthcare Facilities

Metro Transit Location		Schools or Daycares	Health Care Facilities
1	592 Superior Avenue, Newport Beach	105	37
2	26571 Junipero Serra, San Juan Capistrano	80	27
3	14264 Valley Boulevard, Fontana	99	28
4	1300 Western Avenue, Los Angeles	471	343
5	1010 W. Martin Luther King Jr. Blvd., Los Angeles	499	319
6	20500 Madrona Avenue, Torrance	261	112
7	3301 Sepulveda Boulevard, Manhattan Beach	227	108
8	3650 Rockwell Avenue, El Monte	319	155
9	1451 Manhattan Avenue, Fullerton	221	102
10	6805 N. Indian Canyon Drive, Palm Springs	15	15

These stations will be located in the South Coast and Salton Sea air basins, non-attainment areas for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper cites Fontana and El Monte as low-income areas exposed to the highest levels of measured air pollution.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Fontana, El Monte, Torrance, Fullerton, and the areas of Los Angeles targeted for stations #4 and #5. Combined with the communities' high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support existing heavy-duty natural gas fleets and may be influential to fleets considering natural gas for an alternative fuel. The heavy-duty vehicle sector represents a large portion of the total transportation emissions. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project sites or in the cities where the stations will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG and LNG trucks replace diesel vehicles (see Table 5).

Outreach Efforts

The South Coast Air Quality Management District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

City of Reedley Central Valley Transportation Center – NG Station

Project Description

The project will fund infrastructure at the Central Valley Transportation Center (CVTC). The CVTC will house, repair, and maintain a green fleet of vehicles. The facility will include a learning center and education center component to train current and future vehicle technicians on the latest technologies. Program funding will be limited to the CNG and EV fueling infrastructure in the project. The fuels will be used by the City of Reedley, Kings Canyon Unified School District (USD), Dinuba USD, Parlier USD, and H&S Trucking. This fueling infrastructure is required to expand the area's interest in alternative fuel vehicles. This project supports market transformation by offering alternative fuels in an area where the next CNG station is 30 miles away. The CVTC will serve as a central hub between Fresno and Bakersfield. The San Joaquin Valley Air Pollution Control District will be the project manager for this effort.

Project Site

The station will be installed at 20346 East Huntsman in Reedley. The station has close proximity to Highway 99, a corridor heavily used for goods movement.

The station will be located in the San Joaquin Valley Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper cites Reedley as a low-income area exposed to the highest levels of measured air pollution. There are 29 schools or daycares, and nine health care facilities within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Reedley. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support existing heavy-duty natural gas fleets and local school district bus fleets, and may be influential to fleets considering natural gas for an alternative fuel. The heavy-duty vehicle sector represents a large portion of the total transportation emissions. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG and LNG trucks replace diesel vehicles (see Table 5).

Outreach Efforts

The San Joaquin Valley Air Pollution Control District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

City of Lemoore CNG Fueling Station

Project Description

The City of Lemoore and Lemoore School District will partner to develop a CNG fueling station. The station will be open to the public and serve both the City and School District's vehicles. Both fast filling and slow filling options will be available at this station. The city's longer-term goal is to include the waste water treatment plant in their fuel production needs. Near-term efforts will be directed to convert the school bus and local government fleets to CNG. This project is supported by the San Joaquin Valley Air Pollution Control District.

Project Site

The station will be installed at 857 Iona Avenue in Lemoore.

The station will be located in the San Joaquin Valley Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. There are 15 schools or daycares, and one health care facility within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Lemoore. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support the conversion of diesel bus and municipal vehicle fleet to natural gas. The school district and the City of Lemoore are addressing severe localized health impact issues from existing diesel school buses. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG busses replace diesel vehicles (see Table 5).

Outreach Efforts

The San Joaquin Valley Air Pollution Control District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

San Diego Metropolitan Transit System Upgrade CNG Fueling Station Serving the San Diego Urban Area

Project Description

The project would install larger CNG compressors (minimum 5,520 SCFM) to ensure adequate fueling of the San Diego Metropolitan Transit System's fleet. This is part of a larger effort to upgrade the entire maintenance facility site. The current equipment is designed for a fleet that is one third the actual size. Existing equipment provides 1,900 scfm and was installed in 1993. The new equipment will provide 5,500 SCFM. Upgrading the compressors will support 40 new CNG buses.

Project Site

The upgraded equipment will be installed at 3650 Main Street in Chula Vista, at the site of the South Bay Maintenance Facility (SBMF) and CNG station.

These stations will be located in the San Diego Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not cite Chula Vista as a low-income area exposed to the highest levels of measured air pollution. There are 128 schools or daycares, and 28 health care facilities within a one-mile radius of the project site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Chula Vista. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will support the existing natural gas bus fleets and may be influential to fleets considering natural gas for an alternative fuel. The transit sector represents a large portion of the total transportation emissions. As shown in Table 5, natural gas results in criteria pollutant (volatile organic compounds, nitrogen oxides and particulate matter) emission reductions when compared to diesel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the station will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as CNG busses replace diesel vehicles (see Table 5). A Final Initial Study and Mitigated Negative Declaration for this project finds no new significant environmental impacts would occur as a result of the proposed modifications to the SBMF.

Outreach Efforts

The San Diego County Air Pollution Control District typically requires a permit for natural gas fueling stations. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

CHAPTER 4:
E-85 Infrastructure

Project Name

Propel Fuels California Low-Carbon Fuels Infrastructure Investment Initiative

Project Description

Propel Fuels will install fueling equipment at approximately 10 existing fueling stations. The project will displace approximately four million gallons of petroleum-based fuel. The Energy Commission is only funding a portion of the equipment used to dispense E-85. This project fits into Propel Fuels' larger effort to install the equipment at a total of 75 stations (proposed for funding under PON-08-010, *American Recovery and Reinvestment Act of 2009 Cost Share Alternative and Renewable Fuel and Vehicle Technology Program*.

Project Site

There are 10 planned stations, all of which are existing gasoline and diesel fueling stations. Propel will install dual fuel inserts and fuel pumps at the existing gasoline and diesel stations to dispense E-85 and biodiesel. Propel Fuels identified 30 potential stations for installation of the equipment. For transparency, staff analyzed all 30 locations recognizing that equipment will only be installed in 10 of these locations upon project completion. Table 6 includes demographic data for cities where the stations may be located. These cities are: Bellflower, Burbank, Carlsbad, Cupertino, El Cajon, Encinitas, Lynwood, Millbrae, Mission Hills, Morgan Hill, Norwalk, Pacoima, Rancho Del Rey (Chula Vista), Salinas, San Dimas, Santa Cruz, Santa Fe Springs, Santee, and Sunnyvale.

Potential Impacts

The Energy Commission identified several areas with environmental justice indicators in the Department of General Services/Propel Biofuels project summary in the first Localized Health Impacts Report.[4] Of the cities listed above, environmental justice communities with social vulnerability indicators exist in the following project locations:

Bellflower	Norwalk	Salinas
Burbank	Pacoima	San Dimas
El Cajon	Rancho Del Rey	Santa Fe Springs
Lynwood		

Combined with the communities' high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

Use of the alternative fuel dispensing equipment is not expected to result in any new, net emissions when compared to gasoline. In fact, the fuel, for the most part, is expected to replace some of the dispensing of gasoline at existing gas stations. As shown in Table 4 in Chapter 6, E-85 results in decreases in criteria emissions.

[4] Macias, Aleecia. 2010. ***Localized Health Impacts Report.*** California Energy Commission, Fuels and Transportation Division. Publication number: CEC-600-2010-003

This project is not expected to result in adverse health impacts to sensitive populations at the project sites or in the cities where the stations will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as alternative fuels replace petroleum-based fuels (see Table 4).

Outreach Efforts

The local air district typically requires a permit for the installation of E-85 dispensers at existing stations if there is an increase in capacity. If, during the permit evaluation stage, the air district determines the project will result in an increase in station capacity or emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

CHAPTER 5:
Biodiesel Infrastructure

Project Name

Community Fuels Expanding Access to Renewable Fuels - Port of Stockton Terminal

Project Description

This project is to build a biodiesel fuel terminal on property adjacent to the existing Community Fuels biodiesel production facility at the Port of Stockton, adjacent to their quality control laboratory and within a mile of an existing petroleum rack terminal. The project is compatible with standard operating procedures and equipment used for loading and transporting petroleum products. Community Fuels listed potential feedstocks for biodiesel as vegetable oils, animal fats, and waste oils.

Project Site

This project will be located at the Port of Stockton in California. The project site is strategically located in close proximity to existing fuel distribution facilities, major trucking corridors, rail lines, and marine shipping via San Francisco Bay. The proposed site is in a heavy commercial industry developed area, within two miles of an existing petroleum terminal and ethanol plant. The port encompasses several petroleum terminals operated by major oil companies, making the location of this biodiesel terminal ideal for integration with mainstream fuel infrastructure. The port is one mile from Interstate 5, and all interconnecting major highway systems. Rail service is provided by transcontinental railroads.

The terminal storage tank will be located in the San Joaquin Valley Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not cite the Port of Stockton as a low-income area exposed to the highest levels of measured air pollution. There are 100 schools or daycares, and 51 health care facilities within a one-mile radius of the project site.

Potential Impacts

This project will support the existing diesel truck fleets and supply the goods movement sector with a cleaner fuel alternative. The goods movement sector represents a large portion of the total transportation emissions. Currently, over 200 truck companies serve the port, including all major transcontinental carriers. This site has the potential to increased truck traffic, and increase the trucks trip length by up to four miles (roundtrip) to pick up the biofuel and return to the existing petroleum terminal. Conversely, for some trucks, this project may reduce truck traffic and trip miles relative to the current practice of traveling to two different, and at times distant, sites, loading once with petroleum diesel and once with the biofuel. The site will also have the capacity to ship bulk shipments via rail mitigating some truck traffic.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the terminal storage tank will be located.

Community Fuels secured a Notice of Determination that its activities will not have a significant effect on the environment. Although a new review must be completed for the proposed project, Community Fuels anticipates that many of the existing allowances will transfer to the new

terminal project and that the primary impacts (likely to be traffic associated with a high volume terminal) will fall within the allowable activities of the Port's existing program EIR.

Outreach Efforts

The San Joaquin Valley Air Pollution Control District typically requires a permit for biodiesel fuel terminals. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

Pearson Fuels Two Biodiesel Blend Terminals and Tackling the Underground Tank Problem

Project Description

Pearson Fuels with SoCo Group and InterState Oil Company will develop two new in-line biodiesel blending facilities. Pearson Fuels will work with SoCo Group for a state-of-the-art, modular biodiesel blending facility as part of a new diesel fuel terminal at the Perris site. Biodiesel would not be included at this site without this funding. The Perris site will make biodiesel blends available to Ventura, Los Angeles, Orange, Riverside, San Bernardino, Imperial, and San Diego counties. At McClellan, Pearson Fuels will work with InterState Oil Company to upfit one of its existing diesel terminals with full biodiesel storage and blending capacity. This will provide biodiesel blends to San Francisco, San Jose, Sacramento, and Stockton metropolitan areas. AE Biofuels will produce the biodiesel from various feedstocks with emphasis on non food-based feedstocks, such as waste grease.

Project Site

This project will be located at the Southern SoCo Biodiesel Terminal at Western Way and Harley Knox Blvd., a new diesel terminal site in Perris; and at the Northern Interstate Biodiesel Terminal at 4545 Dudley Boulevard in North Highlands at the former McClellan Air Force Base fuel supply storage site which has been used for private fuel distribution. The proposed biofuel terminals will be located within two diesel terminal sites and provide in-line blending of petroleum diesel and biofuels, and should reduce truck traffic and their vehicle-miles-traveled relative to the current practice. The current practice is for trucks to travel to two different, and at times distant, sites, loading once with petroleum diesel and once with the biofuel.

These stations will be located in the Sacramento Valley Air Basin and South Coast Air Basin; both non-attainment areas for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not cite Sacramento as a low-income area exposed to the highest levels of measured air pollution. Perris is a low-income area exposed to the highest levels of measured air pollution. There are 180 schools or daycares, and 54 health care facilities within one mile of the northern site, and 51 schools or daycares, and six health care facilities within one-mile of the southern site.

Potential Impacts

Environmental justice communities with social vulnerability indicators exist in Perris. Combined with the community's high exposure to air pollutants and related health risks, these areas could be disproportionately affected if the project were to result in an emissions increase.

This project will provide cleaner fuel for the existing diesel truck fleets serving the goods movement sector. The goods movement sector represents a large portion of the total transportation emissions.

This project is not expected to result in adverse health impacts to sensitive populations at the project sites or in the cities where the storage tank terminals will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as biodiesel fuel is used in place of diesel in the vehicles.

Outreach Efforts

The air districts typically require a permit for biodiesel fuel terminals. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

Project Name

Western States Oil Bulk Biomass Dispenser Adjacent to San Jose Pipeline Terminal

Project Description

The project proposes to retrofit an existing premium-gasoline bulk tank for use as a biodiesel storage tank. Western States Oil operates a commercial truck stop immediately adjacent to the San Jose Kinder-Morgan terminal that services the South San Francisco Bay Area. The Western States facility can be easily accessed by trucks departing the Kinder-Morgan terminal to provide splash blending with biodiesel. The project will convert an existing, above-ground, permitted and operational tank for use to dispense biodiesel. The tank will be fitted with high speed pumps and re-plumbed and fitted with appropriate dispensing equipment. Western States Oil proposes to move over five million biodiesel gallons annually from feedstocks of vegetable oils, animal fats, and second use greases.

Project Site

This project will be located at the 2300 Kruse Drive in San Jose. The project site is strategically located immediately adjacent to the San Jose Kinder Morgan pipeline terminal. The facility can be easily used to top-off partially loaded transfer trucks departing the Kinder-Morgan terminal.

The storage tank terminal will be located in the San Francisco Bay Area Air Basin, a non-attainment area for ozone, particulate matter (10 micron), and particulate matter (2.5 micron) pollutants. The Air Resources Board white paper does not cite San Jose as a low-income area exposed to the highest levels of measured air pollution. There are 183 schools or daycares, and 64 health care facilities within a one-mile radius of the project site.

Potential Impacts

This project will support the existing diesel truck fleets and supply the goods movement sector with a cleaner fuel alternative. The goods movement sector represents a large portion of the total transportation emissions. This bulk biomass diesel dispenser will convert an existing premium gasoline storage located within an existing terminal and bulk storage site and should reduce truck traffic and their miles traveled relative to the current practice. The current practice is for trucks to travel to two different, and at times distant, sites, loading once with petroleum diesel and once with the biofuel.

This project is not expected to result in adverse health impacts to sensitive populations at the project site or in the city where the storage tank terminal will be located. Rather, the project is expected to alleviate air pollutant exposure in the region as biodiesel fuel is used in place of diesel in the vehicles.

Outreach Efforts

The Bay Area Air Quality Management District typically requires a permit for biodiesel fuel terminals. If, during the permit evaluation stage, the air district determines the project will result in an increase in emissions above the threshold, the air district will notice residents within 1,000 feet of the site.

The air district will also post notices to the Air Resources Board and Environmental Protection Agency websites and in local newspapers if the project is using emission offsets or emission reduction credits.

CHAPTER 6:
Aggregate Location Analysis and Community Impacts

Energy Commission staff used data from the *Full Fuel Cycle Assessment* report prepared by TIAX, LLC in August 2007 to compute estimated reductions (Table 4 and Table 5) in criteria pollutants on a tank-to-wheels basis. As all of the projects analyzed in this report are fueling infrastructure projects, the tank-to-wheel data is the most appropriate to look at emissions associated with refueling and fuel use.

TABLE 4: Emission Reductions for Gasoline Vehicles

Fuel	VOC	CO	NOx	PM10
Electric Charging	100%	100%	100%	58%
E-85	53%	52%	36%	43%

TABLE 5: Emission Reductions for Diesel Vehicles

Fuel	VOC	CO	NOx	PM10
CNG*	27%	6%	2%	24%
LNG*	31%	12%	7%	28%

* Compared to Ultra Low Sulfur Diesel in urban bus application.

An Air Resources Board fact sheet[5] describes the health impacts of exposure to air pollutants. In particular, ozone and particulate matter exposure is the cause of approximately 210,000 cases of asthma and 8,800 premature deaths each year.

The proposed infrastructure projects will increase the widespread use of alternative fuel vehicles in place of their petroleum counterparts. As shown in the tables above, the projects proposed for funding will result in criteria pollutant reductions, including those identified as the cause of asthma and premature deaths. Many of the fueling stations are located in areas that are identified as Environmental Justice communities with social vulnerability indicators and high exposure to air pollutants associated with health risks.

Considered with the other fuel infrastructure and biomethane production projects funded in this funding cycle, no communities are disproportionately affected. The project locations are generally spread across the state and concentrated in areas as necessary to support vehicle roll-outs. The biomethane production projects are primarily located in sparsely populated, rural areas. The fuel infrastructure projects are primarily in metropolitan areas that are easily accessible to consumers and commercial users.

[5] Health Effects of Particulate Matter and Ozone Air Pollution, November 2007

Table 7 provides city-level data for the proposed projects to give additional insight on the community demographics where the projects will be located. Table 6 summarizes cities where two or more environmental justice indicators[6] exist.

TABLE 6: Cities with Environmental Justice Indicators

City	Minority	Poverty Level	Unemployment Rate	Age
Bellflower	X	X		X
El Cajon	X	X		
El Monte	X	X	X	X
Fontana	X	X	X	X
Lemoore			X	X
Long Beach	X	X	X	
Los Angeles	X	X	X	
Lynwood	X	X	X	X
Mission Hills	X			X
Norwalk	X		X	
Oakland	X	X	X	
Ontario	X	X	X	X
Pacoima	X	X		
Palm Springs		X		X
Perris	X	X	X	X
Reedley	X	X	X	
Salinas	X	X	X	X
San Francisco	X			X
San Jose	X		X	

The emissions reductions associated with the projects are anticipated to lead to improved air quality in these communities. While overall air quality is dependent on a number of factors, the Energy Commission expects that air quality will improve over time with the increased use of alternative fuels, including in disadvantaged communities and those communities with the most significant exposure to air contaminants.

In summary, the proposed projects will reduce emissions, exposure, and health risk at a local level based on the assumption that the vehicles deployed and operated in concert with the projects are cleaner than the gasoline vehicles they will replace.

[6] For purposes of this analysis, staff used the following criteria: unemployment rate exceeds the state unemployment rate (12.6 percent), statewide percentage of persons below the poverty level (13.3 percent), a minority subset represents over 30 percent of the city population, and population under five years or over 65 years is 20 percent higher than the State average (7.4 percent <5 years, and 11.2 percent >65 years).

TABLE 7: Demographic Data for Fuel Infrastructure Projects (PON-09-006)

(Percentage of total population)

City	Bellflower	Burbank	Carlsbad	Chula Vista/Rancho Del Rey*	Cupertino	El Cajon	El Monte	Encinitas	Fontana
Below poverty level	15.8	10.5	5.9	10.6	4.8	16.7	26.1	7.3	14.7
Ethnicity									
Black	13.1	2.1	1	4.6	.7	5.4	.8	.6	17.8
American Indian or Alaskan Native	.9	.6	.4	.8	.2	1	1.4	.5	1.1
Asian or Pacific Islander	10.4	9.3	4.4	11.6	44.5	3.2	18.6	3.2	4.7
Hispanic	43.2	24.9	11.7	49.7	4	22.5	72.4	14.8	57.7
White	46.1	72.2	86.6	55.1	50	74	35	86.6	45
Age							7		
< 5 years	9.5	5.7	6.4	7.8	6.1	8.2	10	5.9	10.3
> 65 years	8.4	12.8	14	11	11	11.3	6.9	10.4	4.7
Unemployment rate	12.5	10	7.3	12.8	7.9	14.8	15.1	7.9	15.4

City	Fullerton	Hollywood	Lemoore	Long Beach	Los Angeles	Lynwood	Manhattan Beach	Milbrae	Mission Hills	Morgan Hill
Below poverty level	11.4	11.5	13.2	22.8	22.1	23.5	3.2	3.4	13.1	4.7
Ethnicity										
Black	2.3	3.1	7.3	14.9	11.2	13.5	.6	.8	6.7	1.7
American Indian or Alaskan Native	.7	.4	2.9	.8	.8	1.2	.2	.2	1.5	1.1
Asian or Pacific Islander	16.3	3.9	7.7	13.2	10.8	1.2	6.1	28.4	4	6.2
Hispanic	30.2	8.8	28.2	35.8	46.5	82.3	5.2	11.6	32.5	27.5
White	61.9	86.4	60.6	45.2	46.9	33.6	89	63.1	69.4	72.4
Age										
< 5 years	7	1.6	10.6	8.4	7.7	10.6	6.5	4.6	7.4	8.1
> 65 years	11.3	17	5.9	9.1	9.7	4.2	10.4	20.9	11.5	7.5
Unemployment rate	10.9	10.4	16.4	13.5	13.6	19.2	4.4	5.1	12.1	15.4

City	Newport Beach	Norwalk	Oakland	Ontario	Pacoima*/ San Fernando	Palm Springs	Perris	Reedley	Sacramento	Salinas	San Diego
Below poverty level	4.4	11.9	19.4	15.5	40	15.1	20.4	21.4	20	16.7	14.6
Ethnicity											
Black	.5	4.6	35.7	7.5	1	3.9	15.9	1.8	14.1	3.3	7.9
American Indian or Alaskan Native	.3	1.2	.7	1.1	1.7	.9	1.5	1.2	1.1	1.3	.6
Asian or Pacific Islander	4.1	11.9	15.7	4.3	1.2	3.9	3	8.8	20.1	6.5	14.1
Hispanic	4.7	62.9	21.9	59.9	89.3	23.7	56.2	58	27	64.1	25.4
White	92.2	44.8	31.3	47.8	43	78.3	41.2	51.8	48.3	45.2	60.2
Age											
< 5 years	4	8.6	7.1	9.7	n/a	4.7	10.8	6.5	7.1	9.3	6.7
> 65 years	17.6	9	10.5	5.9	n/a	26.2	6.2	11.3	11.8	7.1	10.5
Unemployment rate	6.3	13	17.2	15.3	12.6	11.9	23	34.4	12	23	10.6

City	San Dimas	San Francisco	San Jose	San Juan Capistrano	Santa Cruz	Santa Fe Springs	Santee	Sunnyvale	Torrance	West Covina
Below poverty level	6.3	11.3	8.8	10.7	16.5	12.5	5.4	5.4	6.4	9
Ethnicity										
Black	3.3	7.8	3.5	.8	1.7	4	1.5	2.2	2.2	6.4
American Indian or Alaskan Native	.7	.5	.8	1.1	.9	1.4	.8	.5	.4	.8
Asian or Pacific Islander	9.6	31.3	27.3	2	5	4	2.9	32.6	28.9	22.9
Hispanic	23.3	14.1	30.2	33.1	17.4	71.3	11.4	15.5	12.8	45.7
White	74.7	49.7	47.5	78.5	78.7	51	86.7	53.3	59.2	43.9
Age										
< 5 years	5.9	4.1	7.6	7.2	4.9	n/a	6.7	7	5.7	7.6
> 65 years	11.9	13.7	8.3	13.1	8.5	11.2	8.9	10.6	14.1	10.4
Unemployment rate	7.2	9.9	13	8.9	12.8	10.3	9.2	10.4	6.2	10.9

*Nearest city with data statistics

SOURCE: Unemployment Information, EDD Labor Market Information Division; Age/ethnicity demographics, U.S. Census