### CALIFORNIA AIR RESOURCES BOARD

#### Fiscal Year 2016-2017 Car Sharing and Mobility Options Pilot Project List of Applications Received and Project Executive Overviews



Project Applicant	<b>Project Title</b> Click on Project Title to link to Executive Overview	Small or Larger Project Application Small = up to \$750,000 Larger = up to \$2.25M	Disadvantaged Community Locations	Funding Amount Requested	
Bay Area Air Quality Management District	Bay Area Car Sharing Pilot Project	Larger	San Jose	\$	2,250,000
City of Burbank Department of Water and Power	<u>Burbank Charge N'</u> <u>Share</u>	Larger	Burbank	\$	1,445,000
University of California Los Angeles (UCLA)	Low Emission Vehicle Pilot Project	Larger	Los Angeles	\$	926,000
San Joaquin Valley Air Pollution Control District	Ecosystem of Shared Mobility Services in the San Joaquin Valley	Larger	San Joaquin Valley	\$	2,250,000
US Green Vehicle Council	Electric Car Sharing Community- in Stockton, Oakland, Fresno and Bakersfield - Larger	Larger	Stockton, Oakland, Fresno and Bakersfield	\$	2,250,000

Projects are listed in random order.

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Community Bridges	Lift Line Paratransit Dial-a-Ride Electric Vehicle Transition Program	Lift Line ParatransitDial-a-Ride ElectricVehicle TransitionProgram		\$	268,219
US Green Vehicle Council	Electric Car Sharing Community- in Stockton, Oakland, Fresno and Bakersfield - Small	on, Small Stockton, Oakland, Fresno and Bakersfield		\$	750,000
Fresno County Council of Governments	Green Raiteros: Indigenous Zero Emission Ridesourcing in Fresno CountySmallHuron, Mendota, Orange Cove		\$	750,000	
Los Angeles CleanTech Incubator	Los Angeles EV Rider Initiative	Larger	Los Angeles County	\$	2,249,300
San Joaquin Valley Air Pollution Control District	Valley Air ZEV Mobility Pilot Project	<u>Mobility</u> Small San Joaquin Valley		\$	749,800
Metropolitan Transportation Commission	Car Sharing and Mobility Hubs in Affordable Housing Pilot Project San Francisco Bay Area	Larger	Oakland, Richmond, San Jose	\$	2,250,000

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Los Angeles Department of Transportation	<u>Connecting the DOTs:</u> <u>Establishing Electric</u> <u>Car-and-Bike-Sharing</u> <u>Along the Metro Blue</u> <u>Line</u>	Larger	Los Angeles	\$	2,249,713	
Community Bridges	<u>Community Bridges</u> <u>Electric Vehicle</u> <u>Employee Carpool</u> <u>Project</u>	Small	Watsonville	<del>()</del>	294,587	
Civic San Diego	FRED East Village / FRED-EV	Larger	East Village San Diego	\$	\$ 2,250,000	
Sunline Transit Agency	Eastern Coachella Valley Car Sharing Pilot Program	Small	Eastern Coachella Valley	\$	715,071	
Total				\$	21,647,690	

Solicitation materials are available at: <u>www.arb.ca.gov/msprog/aqip/solicitations.htm</u>. Scoring criteria are described in the Fiscal Year 2016-2017 Car Sharing and Mobility Options Pilot Project Solicitation at: <u>www.arb.ca.gov/msprog/aqip/solicitations/040417\_FY1617CarSharingPilotProjectSolicitation.pdf</u> Preliminary project selection will be announced soon.

Projects are listed in random order. Executive overviews are provided by applicants and are not reviewed, edited, or endorsed by the California Air Resources Board. Page 3 of 18

# Bay Area Car Sharing Pilot Project

- Name of Grantee: Bay Area Air Quality Management District
- Funding Amount Requested: \$2,250,000
- Match: \$6,346,613, including \$4,937,113 in cash and \$1,409,500 in-kind match
- Description of Project: The project will deploy 250 leased zero-emission, hydrogen fuel-cell electric vehicles (FCEVs) in a car sharing program located in and directly benefitting the City of San Jose's disadvantaged communities. The project would demonstrate mobile hydrogen refueling, solving critical infrastructure needs and generating broad scale exposure of FCEV's in the target market.
- Location of Project: City of San Jose neighborhoods: East San Jose, North Valley, Downtown San Jose and Edenville-Seven Trees. The project specifically supports communities ranked in the bottom quartile of CalEnviroScreen2.0, and covering 21 contiguous census tract areas, as well as the land they surround.
- Number of Participants: 5,000 participants in year 1.
- Number and Type of Vehicles, Fueling: 250 hydrogen fuel cell electric vehicles fueled by three mobile fuelers.
- Total Estimated Greenhouse Gas (GHG) Emission Reductions per Grant Dollar in 1<sup>st</sup> year: 0.94lb/\$ (2,121,415 lbs GHG reduced/\$2.25 million ARB funds).

Projects are listed in random order.

## **Burbank Charge N' Share**

The primary applicant of the project is "<u>City of Burbank – Department of Water and Power</u>". The project title is "<u>Burbank Charge N' Share</u>". The City of Burbank requests CARB funds of \$1,445,000, with match funds of \$431,915 (\$150,000 of cash match, \$281,915 of in-kind). Our goal is to deploy DC fast charging infrastructure in disadvantaged communities, providing easy public access to fast charging for battery electric vehicle drivers participating in car sharing through on-demand platforms. The project will create additional jobs with drivers paying for the lease of the vehicle, while they get subsidized charging to lower cost of operation. By having a sustainable revenue stream from the project. The project intends to serve over 1000 residents in disadvantaged communities, with a total deployment of 50 battery electric vehicles and 15 DC fast chargers across four sites. In addition, we would reduce 0.001035467 (MTCO2e/\$) of total GHG emissions per dollar grant.

## Low Emission Vehicle Pilot Project

B. Executive Description of Project: UCLA Transportation is requesting \$926,000 for the Low Emission Vehicle Pilot Project. UCLA Transportation will fund 72.7% of the total project costs, which include administration, capital expenses, marketing, and ongoing operational expenditures. This project is intended to serve communities within the Los Angeles five-county area, including but not limited to designated Disadvantaged Communities (DAC), as detailed in SB535. DACs currently served include the route origins listed in Section E. An estimated 120 participants from DACs would be served by the project. New high-occupancy rideshare battery-electric vehicles (BEV) and plug-in hybrid electric vehicle (PHEV) have recently entered the low- and zero-emissions vehicle market, which are estimated to reduce unleaded gas consumption by more than 400% per vehicle. Portable Level Two (2) chargers are ideal for this application due to the likelihood of changes to driver statuses—permanent installations would not allow for easy transfer of driver responsibilities. UCLA Transportation will purchase 20 PHEV/BEV and 20 Level 2 chargers for installation within the DACs. The project is estimated to reduce carbon emissions by 40.03MTCO<sub>2</sub>e per year, or 43.23gCO<sub>2</sub>e per year, per \$1.

Projects are listed in random order.

#### **Ecosystem of Shared Mobility Services in the San Joaquin Valley**

The San Joaquin Valley Air Pollution Control District (Valley Air) is the lead applicant for the proposed project entitled *Ecosystem of Shared Mobility Services*. Valley Air and our project partners request \$2.25 million from the California Air Resources Board (ARB) (0.0008 MTCO<sub>2</sub> e reduced per dollar) and will contribute an additional \$1,561,426 in matching funds (\$381,000 cash and \$1,180,426 in-kind). The project will support a suite of shared mobility services in five disadvantaged, rural communities in the San Joaquin Valley (SJV) where provision of transit is very costly and services are extremely limited. The pilot concepts and locations were identified as part of a year-long planning project led by UC Davis in partnership with the eight SJV Metropolitan Planning Organizations (MPOs), SJV transit agencies, and the California Department of Transportation (Caltrans). These concepts and locations were selected by the eight MPOs for implementation because they have significant potential to reduce operating costs, improve mobility and access in rural disadvantaged communities (DACs), and provide models that can be exported throughout the Valley and the State.

- 1. Battery electric vehicle (BEV) <u>carsharing and ridesourcing</u> programs will be established at seven <u>affordable housing complexes</u> in Tulare and Kern communities. A total of at least 24 BEVs will be installed, along with at least 17 level 2 dual port chargers. The development density of selected locations will support walk access to carsharing for residents in the complexes and surrounding neighborhoods. Use of the BEV vehicles for ridesourcing at each complex will be fostered to expand the reach of existing transit and the new carsharing service. The focus will be first and last mile access to transit and direct access to the end destination, when it is not possible to complete an essential trip with transit or carsharing. Ridesourcing provides a new income opportunity for those who decide to become drivers. Carsharing and ridesourcing will be subsidized to ensure that the services are affordable. It is anticipated that this program will produce significant savings from reduced dial-a-ride (DAR) service costs (e.g., by retiring one vehicle in a DAC) that can be used for sustained operations.
- 2. A technology platform will be implemented to improve the efficiency and service of the multiple independently operated demandresponsive transportation services in Stanislaus and San Joaquin jurisdictions (e.g., DAR, volunteer transportation organizations, carsharing, and ridesourcing). The platform will aggregate the demand and supply of available services: (a) participating transit providers will communicate the demand for travel (departure/arrival times and locations), and (b) suppliers will communicate vehicle availability, capacity, and fares. The platform will use this data to match travelers and drivers to minimize service costs, travel times, and greenhouse gas (GHG) emissions by filling available seats and reducing empty travel miles. Outreach will be conducted to engage and expand service providers and to increase the pool of volunteer drivers. At least one Stanislaus County diesel DAR van will be replaced with a BEV, and at least one DC fast charger will be installed. This platform will reduce the very high per trip DAR costs in jurisdictions that cannot reduce DAR service and still meet Americans with Disabilities Act service requirements.

In sum, the total number of people (or participants) served by the pilot will be 130,648 across 24 rural DAC census tracts.

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#### Electric Car Sharing Community- in Stockton, Oakland, Fresno and Bakersfield - Larger

- Name of grantee: US Green Vehicle Council
- Name of project: Electric Vehicle Sharing Community- in Stockton, Oakland, Fresno and Bakersfield
- Funding amount requested: \$2,250,000
- Match (including any in-kind) funding provided: \$621,277 (27%)
- Description of how the project will work; The project will provide electric car sharing in the disadvantaged communities in 4 cities: Stockton, Oakland, Fresno and Bakersfield. The EV sharing program includes:

<u>Traditional Car Sharing</u>: A network of car-share users who rent a vehicle for short amounts of time (often by the hour) from a fleet of designated vehicles. Users can reserve a online through a smart phone app, or by phone call and pick up the reserved car from a designated public location. The car sharing will be offered at 4 cities: Stockton, Oakland, Fresno and Bakersfield

<u>Combination car Sharing and carpool</u>: A passenger vehicle or van is used to transport riders to a common destination such as work, then—during what would typically be a long period of vehicle non-use—the vehicle is available for use by members or others throughout the day until the car pool return trip. The Combination car Sharing and carpool will be offered at Stockton and Bakersfield.

	Stockton	Oakland	San Francisco Carpool Destination	San Jose Carpool Destination	Fresno	Bakersfield	Los Angeles Carpool Destination	Total	
EV	10	4		2	4	10		30	
DCFC	1	1	2	1	1	1	1	8	
Level 2	9	3	3	1	3	9	2	30	

Number of participants: 7,500 over 3 years

Total estimated GHG emission reductions 1,422.66 MT CO2/year. Total Project GHG Emission Reduction = 0.00063 MTCO2 GGRF Dollar

Projects are listed in random order.

## Lift Line Paratransit Dial-a-Ride Electric Vehicle Transition Program

Community Bridges is seeking \$249,554 for the Lift Line Paratransit Dial-a-Ride Electric Vehicle Transition Program (Lift Line EV) and providing matching funding with Community Bridges' Measure D funds and in-kind staff labor. The pilot project will transition an already existing ridesharing program providing door-to-door rides to seniors and people with disabilities from its current gas-powered fleet to an all EV fleet and include all the infrastructure required to refuel onsite in a Disadvantaged Community (DAC) of Watsonville, California. The program will continue to serve up to 700 low-income residents per year and include the purchase of two full-size EV shuttle vans, and two EV charging stations. As a result of the implementation of this project, a total estimated Green House Gas (GHG) emission reduction of 0.00051 per grant dollar provided is expected. Electric Car Sharing Community- in Stockton, Oakland, Fresno and Bakersfield - Small

- Name of grantee: US Green Vehicle Council
- Name of project: Electric Vehicle Sharing Community- in Stockton
- Funding amount requested: \$750,000
- Match (including any in-kind) funding provided: \$287,425 (38.3%)
- Description of how the project will work; The project will provide electric car sharing in the disadvantaged communities in Stockton. The EV sharing program includes:

<u>Traditional Car Sharing</u>: A network of car-share users who rent a vehicle for short amounts of time (often by the hour) from a fleet of designated vehicles. Users can reserve a online through a smart phone app, or by phone call and pick up the reserved car from a designated public location in Stockton.

<u>Combination car Sharing and carpool</u>: A passenger vehicle or van is used to transport riders to a common destination such as work, then—during what would typically be a long period of vehicle non-use—the vehicle is available for use by members or others throughout the day until the car pool return trip.

Number of participants: 2,500 over 3 years

Total estimated GHG emission reductions= 0.00066 MTCO2 GGRF Dollar

## Green Raiteros: Indigenous Zero Emission Ridesourcing in Fresno County

Through this project, Valley LEAP is initiating and expanding the Green Raiteros program (a Small Project in Disadvantaged Communities Underserved by Public Transit) in order to enhance a community-based transportation service indigenous to many rural communities in the Central Valley. The alternatives for residents of the Valley's small rural disadvantaged communities are expensive and energy intensive; they involve the cost of owning and fueling a vehicle or using the Valley's rural transit system, which is challenged in serving large sparsely populated areas with limited resources, and provides limited service that comes with considerable opportunity costs. Raiteros are retired Valley residents who offer other community residents inexpensive, accessible, informal transportation to their essential appointments at facilities in the Valley's major metropolitan centers such as in the City of Fresno or at the Valley Children's Hospital in Madera. Green Raiteros will provide drivers and their customers with a reservation system and the ability to directly access and benefit from the use of zero emission battery electric vehicles (BEVs) at very low operating costs. In this proposal, ValleyLEAP is seeking GGRF funding in the amount of \$750,000 to supplement startup support it has received to launch service in the City of Huron. CARB support will allow expansion of the ridesharing program and charging infrastructure to the Cities of Mendota and Orange Cove. ValleyLEAP and its partners will be providing \$243,105 in cost share/match funding to the Green Raiteros program, of which 32% is in the form of in-kind contributions. The funding of this proposal will allow Green Raiteros to purchase 6 BEVs and 8 Level 2 chargers. This support will build on the momentum created by EVgo's support totaling \$519,400 (through a current CPUC settlement) and support from the California Endowment and the 11th Hour Project that have seeded a 2 BEV launch later this year. This proposed expansion from 2 to 8 vehicles will scale the program to 4 cities in Fresno County and will provide service to an estimated 1,600 unique participants (taking a projected 30,000 rides) over the two years of the program, with up to 18 part-time raiteros providing 50-70 trips per day by the second year of the program. Green Raiteros is expected to avoid the emission of 0.0006 tonnes of CO2e/\$. The key project partners for Green Raiteros are: Valley LEAP (including John Shears as LEAP's technical consultant), the Shared Use Mobility Center, and the Fresno Council of Governments. Fresno County's Rural Transit Authority, Economic Opportunities Agency, and Department of Public Health are supporting the project, along with the San Joaquin Valley Unified Air Pollution Control District, and the cities of Huron, Mendota, and Orange Cove, and the City of Fresno's 3rd Council District in Southwest Fresno. The Fresno Council of Governments is serving as fiscal sponsor for ValleyLEAP and equipment suppliers eVgo and Chargepoint are providing the charging infrastructure for the project.

Projects are listed in random order.

#### Los Angeles EV Rider Initiative

LACI proposes to launch the Los Angeles EV Rider Initiative, a car sharing and mobility options pilot project, with a grant of \$2,250,000 from the California Air Resources Board. LACI's team proposal includes total match funding and in kind contribution of \$2,174,873. The EV Rider project will deploy 32 EVs and 16 e-bikes for a combined service of vanpool, car share and e-bikeshare at 7 strategic Los Angeles County locations. Secure hub stations for charging have been designated at host sites at Cal State LA and the downtown Arts District, close to operations, as well as at LA County healthcare centers. Offering a creative mix of mobility options for daily commuting and casual trips, the two-year program will serve more than 1,724 participants residing in disadvantaged communities and will provide access to mobility options to areas of LA County underserved by current transit routes. The implementation of EV Rider offers a total estimated GHG emission reduction of 0.00034 MTCO2e per grant dollar provided.

## Valley Air ZEV Mobility Pilot Project

San Joaquin Valley Air Pollution Control District (District) proposes to launch ZEV Mobility, a car sharing and mobility options pilot project, with a grant of \$750,000 from the California Air Resources Board. This project is in partnership with our technology providers Green Commuter and Swiftmile and our evaluation coordinator CALSTART. The District's proposal includes total match of funding of over 60% from project partners. The ZEV Mobility project will deploy 12 electric vehicles (EVs) and 16 e-bikes for a combined service of vanpool, carshare and e-bikeshare at strategic locations across the District. Secure hub stations for charging will be located in Merced, Bakersfield and West Fresno County in census tracts that are within the top 19% of disadvantaged communities. Offering a creative mix of mobility options for daily commuting as well as casual trips, the two-year program will serve more than 1,000 participants residing in targeted disadvantaged communities that are currently underserved by public transit. The implementation of ZEV Mobility offers a total estimated GHG emission reduction of 0.00033 MTCO2e per grant dollar provided.

## Car Sharing and Mobility Hubs in Affordable Housing Pilot Project San Francisco Bay Area

The Car Sharing and Mobility Hubs in Affordable Housing Pilot Project (Project) is requesting from CARB a \$2.25 million grant to provide 24 battery electric vehicles (BEVs) and 24 electric charging stations (EVSEs) along with a suite of mobility options such as bikeshare, transit passes, electric bicycles, credit for taxi and Lyft Line trips to transit, GIG (one-way car share) and other rideshare solutions at 3 affordable housing sites in Disadvantaged Communities (DACs) in the cities of Oakland, Richmond and San Jose. This Project will offer affordable transportation options to meet the travel needs of under-served low-income residents in the region, while reducing greenhouse gas emissions (GHGs), improving health outcomes, and create a new model for affordable housing development. The Project will match those funds with a \$501,600 cash match from the Air District, \$60,900 cash match and \$250,000 in-kind match from MTC. These mobility options will be coupled with effective travel training and outreach to support resident choices reducing vehicle trips, especially in internal combustion engine (ICE) vehicles, while moving away from private vehicle ownership. To increase impact and get participation levels high enough to sustain the car sharing program there will also be intensive outreach to the surrounding neighborhood residents, encouraging them to enroll in car share. We have identified three initial sites in Oakland, Richmond and San Jose and are ready to include more sites pending funding. A Project Advisory Committee (PAC) will support the efforts to replicate the program, as well as use the Project results to inform policy to more easily implement the Project's innovations going forward. With these three anticipated sites, we expect to reach 641 households (approximately 1,605 residents) and 18,600 residents in the immediate neighborhoods. We will launch 24 BEVs accessible to the public. We have included funding for at least two of the three sites to include a solar charging system. The GHG emission reductions will total 379 MTCO2e, or a cost efficiency of \$5,940 per MTCO2e reduced.

Projects are listed in random order.

## Connecting the DOTs: Establishing Electric Car-and-Bike-Sharing Along the Metro Blue Line

The City of Los Angeles via Los Angeles Department of Transportation (LADOT), in cooperation with the Los Angeles County Metropolitan Transportation Authority (Metro), request CARB's support for their project titled "Connecting the DOTs: Establishing Electric Car-and-Bike Sharing Along the Metro Blue Line," which creates mobility hubs in disadvantaged communities leveraging transit, carsharing, and bike sharing. The goals of this project are fourfold: reduce emissions from single occupancy vehicles in disadvantaged communities; provide convenient, readily accessible, and affordable transportation to residents of disadvantaged communities; provide electric bikeshare and/or electric carshare access in each disadvantaged community along the Metro Blue Line in South Los Angeles; and improve first/last mile connectivity via zero emission vehicles and electric bikes. The total funding request is \$2.25 million, and the City and Metro will provide \$757,461 in match funding (or 33.67% of the funding) request). The City will complete the project in the following stages: finalize permits and sites for electric vehicle supply equipment (EVSE siting; conduct a feasibility study to ensure optimal placement of bike docking stations; issue bids for procurement of bike and car sharing operators; install docks and EVSE; conduct outreach and provide education to community members; launch the car and bike sharing program; and assess performance through data collection and reporting. The project sites are located at Metro Blue Line stations within the top 25% of disadvantaged community Census tracts or within a 5 minutes' walk from a station. These station locations include Vernon, Slauson, Florence, Firestone, 103rd Street/Watts Towers and Willowbrook/Rosa Parks. The estimated number of participants is between 5,000 - 8,000. The project with include 110 battery electric passenger vehicles and at least 110 Level 2 EVSE as part of the car sharing program, and 20 electric bikes for the bike sharing program. The GHG emission reductions over a three year project life total 5,049 MTCO2e, and the criteria pollutant reductions total 3.18 MTCO2e. This is equivalent to \$0.0022 MTCO2e per grant dollar for GHG emission reductions and \$0.0000014 MTCO2e per grant dollar for criteria pollutant emission reductions.

## **Community Bridges Electric Vehicle Employee Carpool Project**

Community Bridges is seeking \$294,5870 for the Community Bridges Electric Vehicle Employee Carpool Project (EV Carpool Project) and providing matching funding with Community Bridges' Measure D funds and in-kind staff labor. This project will purchase four electric vehicle (EV) passenger cars that will be used by Community Bridges employees to carpool commute to and from a Community Bridges site located in a Disadvantaged Community (DAC), at 240 Ford Street, Watsonville, California, where two dual-port electric vehicle charging stations will be installed in order to refuel the vehicles. In addition, the project will also purchase four electric bikes (e-bikes), bike helmets, chargers and bike lockers. The e-bikes will allow employees to travel to and from this site to other Community Bridges offices, and within in the DAC area. There will be up to twenty employees taking part in this project. As a result of the implementation of this project, a total estimated Green House Gas (GHG) emission reduction of 0.00038421 per grant dollar provided is expected.

#### **FRED East Village / FRED-EV**

Civic San Diego is proposing the launch of FRED-EV also known as FRED East Village or Fred Electric Vehicle as an opportunity to provide dependable and equitable transportation to a community in need of a sustainable mobility option. CivicSD is requesting \$2.25 million with a match amount of \$750,000 in order to establish a transportation presence in a community affected by socio-economic and environmental factors that currently limit accessibility in East Village. It is anticipated that CivicSD will purchase an additional 13 vehicles which would increase FRED's fleet from 17 to 30 and will create approximately 40 new jobs. With the purchase of 13 new vehicles, the total estimated GHG emission reductions per grant dollar provided is 181.

### Eastern Coachella Valley Car Sharing Pilot Program

SunLine Transit Agency is advancing a 21-month car sharing pilot program to the most disadvantaged communities in the eastern Coachella Valley of Riverside County to reduce greenhouse gas emissions and provide new mobility services in areas of SunLine's service area underserved by public transit.

The car sharing program will create a network of forty (40) electric Ford Focus vehicles and twenty (20) EVSE sites to serve the 34,938 residents of the communities of Coachella, Thermal, Oasis, and Mecca, including the North Shore of the Salton Sea. The program seeks to register 20% of the estimated 8,803 households, for a total registered membership of 1,760 registered individuals. The project intends to benefit residents of the following Census tracts: 6065045605, 6065045604, 6065045609, and 6065045706, and is being designed in close consultation with the residents it will serve to overcome the many barriers that deter low-income users from accessing car sharing programs.