

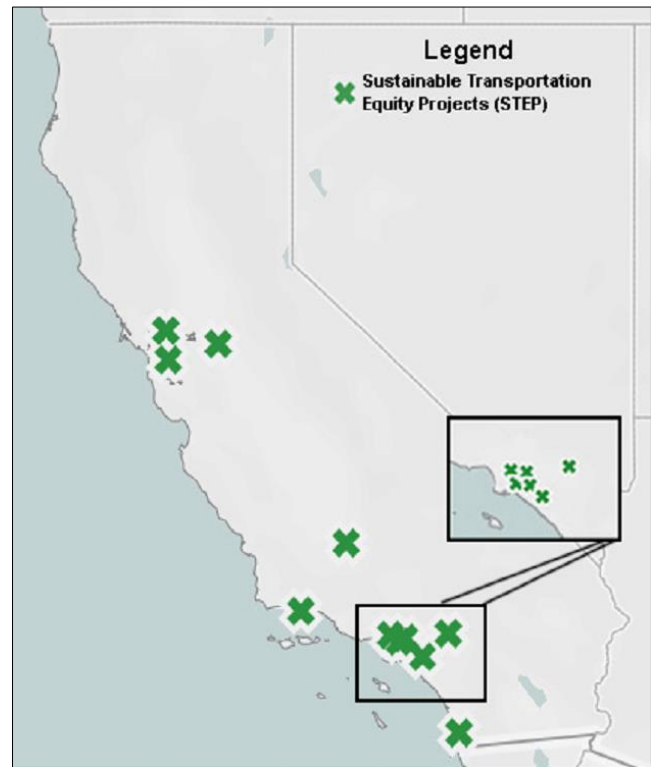
CALIFORNIA'S SUSTAINABLE TRANSPORTATION EQUITY PROJECT (STEP)

California has a well-deserved reputation for enacting policies to combat climate change and providing the financial resources to implement them. Collectively known as California Climate Investments, state revenues from Cap-and-Trade auctions fund a variety of [Low Carbon Transportation Investments](#) (LCTI), which include incentives for cleaner trucks and buses, support for community bike- and car-sharing, and consumer rebates for clean cars. Investment dollars focus largely on underserved communities, including low-income communities and those disproportionately burdened by environmental pollution, as well as small truck fleets. Marking the state's largest investment in equity, it is estimated that more than 70% of LCTI funding benefits priority populations.¹

BACKGROUND AND PROJECT OBJECTIVES

The Sustainable Transportation Equity Project (STEP) is a significant part of the LCTI portfolio. Administered by California's Air Resource Board (CARB), STEP's overarching goal is to increase transportation equity in California's disadvantaged and low-income communities. STEP awards support community-driven planning and capacity-building efforts as well as larger efforts to implement a community's previously identified transportation mobility solutions. The program funds many different types of projects to ensure that funds meet the needs of each community within that community's context.² To date, [13 projects have received \\$44.5 million in STEP funds](#).

STEP grew out of CARB's recognition that most of its clean mobility investments were car-centric and neither sustainable nor accessible to many mobility-challenged persons in rural or urban communities, or those whose age, disability, or income limit their access to personal vehicles. STEP aims to fill this gap and bring historically underinvested communities to the table—by assisting community-based organizations (CBOs) in identifying mobility needs, developing strategies to meet those needs, and applying for and receiving state and



Locations of CARB STEP projects to date (July 2023). STEP's purpose is to increase transportation equity in California's disadvantaged and low-income communities. (Courtesy of CARB.)

federal implementation funds. Because of this broad focus, STEP's clean mobility investments range from tree planting at bus stops to bicycle infrastructure to various forms of shared transportation, all with strong equity, outreach, and sustainability components.

In its initial [planning](#) and [implementation](#) solicitation, STEP awarded \$1.75 million to eight planning projects and \$42.8 million to five implementation projects. Providing funds from June 2021 through March 2025, implementation grants were awarded to the following projects serving residents of

¹ California Air Resources Board, "CARB approves historic \$2.6 billion investment—largest to date—for clean cars, trucks, mobility options," <https://ww2.arb.ca.gov/news/carb-approves-historic-26-billion-investment-largest-date-clean-cars-trucks-mobility-options>, accessed July 16, 2023.

² California Climate Investments, "Sustainable Transportation Equity Project," <https://www.caclimateinvestments.ca.gov/sustainable-transportation-equity-project>, accessed July 16, 2023.

Stockton, Commerce, South Los Angeles, Bayview-Hunters Point, and West Oakland.

The [Stockton Mobility Collective](#) is using STEP funds to initiate and support e-car and e-bike-sharing services, expand a digital mobility-as-a-service (MaaS) platform to enhance mobile transit ticketing, integrate new e-carsharing and e-bikesharing services, and provide subsidized mobility services to income-qualified residents. It is also developing an apprenticeship program in electric shared mobility.

[Commerce Moving Forward](#) is constructing bike lanes; planting shade trees near pedestrian, bike, and transit corridors and engaging residents in their care; adding zero-emission shuttle and bus service; and developing a plan to avoid population displacement from the buildout of a future Los Angeles Metro rail station.

[South Los Angeles Universal Basic Mobility](#) is launching a set of transportation subsidy, e-bike, and on-demand e-shuttle pilot projects; expanding the Blue LA electric carshare program; providing workforce development training on e-bike, electric vehicle service equipment (EVSE), and electric vehicle installation/maintenance; implementing outreach and education events such as CicLAvia; and making public charging, bike, and pedestrian improvements for a future active transportation corridor.

[Our Community, Our Shuttle: Bayview-Hunters Point Equitable Mobility](#) is launching a zero-emission, on-demand, and dynamic shuttle service in the Bayview-Hunters Point neighborhood. The San Francisco Municipal Transportation Agency is augmenting this new service with a series of pedestrian and transit safety and accessibility improvements identified through the Bayview Community-based Transportation Plan; recruiting and training shuttle drivers



Staff explain features of the STEP-funded Mobility Wallet at a community outreach event. (Courtesy of CARB.)

STEP grew out of CARB's recognition that most of its clean mobility investments were car-centric and neither sustainable nor accessible to many mobility-challenged persons in rural or urban communities, or those whose age, disability, or income limit their access to personal vehicles.

from within the community in coordination with the CityDrive workforce program; and running a transportation resource center to answer transportation-related questions and connect residents with transportation services and subsidies. All project elements include extensive outreach and public engagement, including oversight from a Community Congress.

[West Oakland STEP](#) is implementing four interrelated projects to bring sustainable transportation to the community while reducing its disproportionate exposure to air pollution. Strategies from the West Oakland Truck Management Plan are being deployed to reduce diesel truck emissions in residential neighborhoods by educating operators, upgrading truck route signs, training enforcement staff, and identifying truck traffic calming design treatments. The Pedestrian Improvements and Urban Greening project is repairing sidewalks, planting hundreds of trees and shrubs, and creating an urban greening stewardship model, while the Bike Resource Hub is providing free workshops, Earn-A-Bike programming for youth to refurbish donated bikes, bike repair services, and fix-it stations at key destinations throughout West Oakland. Finally, West Oakland Transit Access Improvements is upgrading transit stops and piloting a low-cost institutional transit pass program.

Because these projects are midway through implementation, they are just beginning to generate operational data. However, several of their sub-projects have a longer history. For example, both Blue LA and parts of the Stockton Mobility Collective grew out of earlier CARB-funded pilots, which bring track records of community engagement, performance measurement, and lessons learned—in short, foundations upon which STEP-funded projects are now growing.

STEP provides funding for communities to engage in planning activities that are needed to identify community transportation needs and successfully apply for grants to implement projects responsive to those needs. Projects must be in disadvantaged or low-income communities and center residents' knowledge and expertise through all phases of project implementation.

Application for funding is through a competitive statewide solicitation. Proposals must describe the project, its partnership structure, scope, and long-term sustainability. They must also include timelines, budgets, and letters of commitment and specify plans for community outreach and engagement, workforce development, data collection, evaluation, and reporting.



A Clean Air Day event in 2022 celebrating the city's first two electric shuttles, GreenPower EV250s, purchased with STEP funding. (Courtesy of CARB.)

STEP applicants can be CBOs, state or federally recognized tribes, or local governments that serve disadvantaged and low-income communities in California. Applications that meet eligibility requirements and score above a set threshold are eligible for funding. CARB funds down the list from highest-scoring applications until all funding has been allocated. Because CBOs often have limited resources, CARB permits grantees to apply for an advance payment of project funds and then document spending in quarterly status reports.

In July 2023, CARB released a Request for Applications for Planning and Capacity Building, Clean Mobility in Schools, and STEP. Technical assistance is offered to prospective applicants through a contract with the Institute for Local Government and partners People for Mobility Justice and Fehr & Peers. For this solicitation, CARB developed a two-phased application process. For Phase 1, applicants submit brief concept papers, which are scored by CARB; for Phase 2, applicants who have passed a scoring threshold are encouraged to submit full proposals. While the overriding goal is to reduce emissions, decrease barriers to mobility, and lower transportation costs for priority populations, the depth and diversity of stakeholder involvement brings multiple perspectives and skills to the design, launch, and operation of projects, as well as to involving the community in all facets of project development.

COMMUNITY ENGAGEMENT STRATEGY

Community engagement is a core principle of STEP. STEP projects gather community input to identify needs and define potential projects and continue to engage with the community to refine, launch, and guide projects to meet those needs. As with other programs funded with cap-and-trade dollars, basic program information allows for translation into 12 languages, reflecting the diversity of California's population. The STEP [website](#) allows users to access certain application and project information in both English and Spanish.

In addition to outreach conducted as part of individual STEP-funded projects, the overall STEP program engages with various stakeholders via statewide workshops and working groups. In FY 2022–23, CARB hosted three workshops and another three public work-group meetings to solicit input on funding allocations and application procedures associated with STEP and other clean mobility investments. Comments from those meetings have found their way into grant guidance and administration. For example, CARB staff have acknowledged that they may need to [limit expectations for community engagement at the time of application, particularly if up-front funding is not guaranteed.](#)

BEST PRACTICES ON TRACKING BENEFITS AND IMPACTS

STEP requires that applicants include plans for data collection, evaluation, and reporting in their proposals. STEP also requires that projects rely on the knowledge and expertise of residents through all phases of project design, implementation, and evaluation. Quarterly status reports document grantees' achievement in meeting those plans in terms of utilization metrics (e.g., individuals enrolled in the specific project, trips completed by enrollees and miles traveled), number of outreach events conducted, and event attendance. STEP administrators are working on how to better track impacts with the least burden on grantees and community residents. In particular, they are working with researchers to figure out potential synergistic equity and vehicle miles traveled (VMT) impacts from place-based investments and use that understanding to evaluate investment decisions.

RECOMMENDATIONS AND LESSONS LEARNED

Community engagement is critical to the success of both large statewide programs and smaller, community-level projects. As a statewide effort, STEP gathers valuable programmatic input via public workshops and working groups, which then guide project selection and administration. At the project level, engagement provides not only a means of communicating important insights, but also a mechanism for engendering community ownership. Key lessons learned include:

- Engagement with *all* mobility-challenged persons is critical for planning and responding to all community members' needs and abilities. Non-English speakers, seniors, the transit-dependent, and people with disabilities are represented on many of the STEP resident advisory and steering committees that weigh in on project implementation.
- Multilingual engagement is necessary on all platforms, including digital and print media, and at outreach events.
- Projects that empower community members by enlisting their services on steering committees, hiring them as

- contractors or apprentices, or providing other economic development opportunities are more likely to succeed.
- Because infrastructure in historically underinvested communities can be more costly to install (e.g., power upgrades may be needed), project development may be more costly than anticipated.
 - Challenging power dynamics may arise in partnerships between local governments and community groups. These partnerships require time and care to strengthen and may benefit from assistance by trained facilitators.
 - Project development takes time, persistence, and flexibility. Conditions change, new opportunities arise, and unforeseen events may disrupt the best of plans. As new projects are implemented, CARB works with grantees to identify issues and make necessary changes in the roles and decision-making framework among partners.³
 - Prior experience and lessons learned provide a foundation on which STEP implementation awards can grow. STEP's competitive award process rewards applicants with on-the-ground experience, recognizing that projects evolve over time and permitting grantees to retain what works and discard what does not.
 - Realizing that funding applications can be resource-intensive, CARB has reduced required documentation and instituted a two-phased process in which applicants submit initial concept papers to provide sufficient information for CARB to evaluate proposed projects, followed by a full proposal for successful concepts.
 - While STEP funds capacity-building and pilot projects, no comparable mechanism provides long-term support for those projects. The hope is that other public or private sources will step in to fund successful projects.

ACKNOWLEDGMENTS

Sam Gregor and Bianca Marshall, CARB Mobile Source Control Division; Pedro Peterson, Bree Swenson, and Leslie Baroody, CARB Sustainable Transportation and Communities Division; and Hana Creger, Greenlining Institute, provided content for this case study.

This work was authored by Argonne National Laboratory for the Joint Office of Energy and Transportation's JUST Lab Consortium. Argonne National Laboratory is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC, under contract DE-AC02-06CH11357.

³ However, CARB will not approve changes that reduce the benefits delivered to communities or that reduce the application's score to the point where it would not have been funded.