Clean Mobility Options Voucher Pilot Program
Mobility Project Design Guide
February 2022

Program Support

For questions about this project design guide and to request individualized technical assistance, please contact:

CMO Hotline: 626-744-5670
Available Monday to Friday, 9 AM- 5 PM Pacific Time

Email: info@cleanmobilityoptions.org

Program Website: www.cleanmobilityoptions.org

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Introduction

This Mobility Project Design Guide is intended to support CMO Voucher applicants in developing clean mobility projects that are consistent with the program eligibility criteria. The Clean Mobility Options Voucher Pilot Program (CMO) provides voucher-based funding for zero-emission transportation services for some of California's historically underserved communities. An initiative of California Climate Investments (CCI), CMO directs Cap-and-Trade funding to support the implementation of clean mobility projects such as zero-emission carsharing, bikesharing/scooter-sharing, ridesharing, innovative transit services, and ride-on demand services. CMO also provides funding for community transportation needs assessments that evaluate residents' transportation needs. The program aims to improve underserved communities' access to clean mobility options that are safe, reliable, convenient, and affordable while moving the State closer to its goals of reducing greenhouse gas (GHG) emissions.

The Guide features step-by-step processes that can help applicants identify community transportation needs, solutions, and project partners in a way that will prepare them to complete their Mobility Project Voucher application. The Guide is based on the CMO [Implementation Manual (IM)](#), the program's governing document that establishes the program's eligibility criteria, application, voucher process, and overall requirements.

Please note that this Guide does not necessarily reflect the views and policies of the California Air Resources Board (CARB), nor does the mention of trade names or commercial products as a result of this Guide constitute endorsement or recommendation for use.

Program Principles

CMO is rooted in **mobility equity,** a framework that prioritizes the mobility needs of low-income communities, people of color, and other marginalized groups to address the neglect of past transportation planning decisions. Different from mobility equality which provides the same amount of resources for all to solve a problem, mobility equity tailors solutions to local needs in a way that removes specific barriers to transportation access. For instance, making free bicycles

Image Source: Robert Wood Johnson Foundation

available to everyone in a community is mobility equality. Mobility equity, however, makes different types of bicycles available for different users so anyone regardless of age, income, or physical ability could ride them. Mobility equity is realized when marginalized voices influence decisions to ensure mobility projects address their needs and concerns.[1] The figure to the right illustrates an example of mobility equity.

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[1] [Greenlining Institute (March 2018). Mobility Equity Framework.](#)

To facilitate mobility equity, CMO provides funding to help underserved communities evaluate transportation needs and implement various mobility projects that improve residents' access to clean transportation. Funded projects will embody the following **"CMO"** acronym:

- **Clean** vehicles that do not contribute to harmful emissions and pollution. Examples include:
    - Zero-emission vehicle options like battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEVs).
    - Non-motorized options like bicycles or scooters.

- **Mobility** services that improve access for individuals and communities, and make it possible to live well without owning a vehicle. Examples include:
    - Ridesharing services like shuttles and carpools that fill gaps in existing public transit systems.
    - Vehicle-sharing services like carsharing and bikesharing that can provide access to transit stations and other destinations.

- **Options** that offer quality mobility choices to residents based on their distinct mobility needs. Examples include:
    - A bikeshare program that includes electric, regular, and wheelchair-accessible bicycles that are priced according to the users' income.
    - A wheelchair-accessible vanpool program that is priced based on the destination, time of day the service used, and the number of people that are traveling in the same direction.

Voucher Funding Overview

CMO features two different types of vouchers to help communities access clean mobility options: **Community Transportation Needs Assessment (Needs Assessment) Vouchers** and **Mobility Project Vouchers**. Needs Assessment Vouchers to provide funding for communities to identify and evaluate their unmet transportation needs, which can then inform mobility solutions in a Mobility Project Voucher application. Mobility Project Vouchers provide funding for communities to develop and implement project models that increase their residents' access to destinations, clean mobility services, and help reduce GHG emissions. The *application windows* for applicants to submit applications depend on the type of Voucher funding they are pursuing. Each Voucher has different application requirements (see here for the Needs Assessment application materials and here for the Mobility Project application).

Needs Assessment Vouchers[2]
CMO requires clean mobility project applicants to conduct a needs assessment based on direct engagement with community residents, and lessons learned from past projects and reports. The CARB's Senate Bill 350 Barriers Report and Greenlining Institute's Mobility Equity Framework found that community input is imperative to develop mobility projects that have buy-in from the community, improve residents' transportation access, and reduce GHG emissions. Without a needs assessment that engages community perspectives, mobility projects may not reach their intended goals.

In addition to Mobility Project Vouchers, CMO also made Needs Assessment Voucher funding available to applicants. Needs Assessment Vouchers to provide up to $100,000 in voucher-funding to help applicants understand unmet mobility needs of communities and develop solutions in collaboration with

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[2] See Chapter II of the CMO Implementation Manual (IM) for detailed information on the Needs Assessment Voucher.

residents. Applicants may then use the completed needs assessment to satisfy this application requirement for a Mobility Project Voucher. **Applicants should verify if the [window](#) to submit Needs Assessment Voucher applications is opened before submitting application materials.**

Mobility Project Vouchers[3]
Mobility Project Vouchers provide funding to support the development and operation of a clean mobility project. Eligible organizations can apply for a Mobility Project Voucher of up to $1,000,000 to develop a new eligible project model that could include zero-emission carsharing, carpooling/vanpooling, bikesharing/scooter-sharing, innovative transit services, ride-on-demand services, and/or fixed-route services. Alternatively, eligible applicants can apply for up to $1,000,000 to enhance an existing clean mobility service. A new service is one that does not exist in the proposed project area; an existing mobility service is defined as a mobility service that is currently operating in some locations of the entire proposed project area.[4]

Mobility Project Voucher funding will cover up to four years of project costs, including up to 15 months of project planning and construction activities, and at least three years of operations. Eligible project costs include zero-emission vehicles, related infrastructure, equipment, planning activities, operations, maintenance, and outreach efforts. Applicants must commit to operating the service for an additional year after the voucher funding for project costs ends to ensure a minimum of four years of service operations—**Mobility Project Voucher funds will not cover costs during this period**. Applicants may wish to contact the Program Administrator Team for more guidance on developing a financially sustainable project.

To receive a Mobility Project Voucher, potential applicants must complete a needs assessment before applying to the Program. The needs assessment conclusions must be described in the Mobility Project Voucher application and demonstrate why the proposed mobility service(s) is needed in the project area. Applicants may use an existing assessment that has been completed within the last four years or conduct a new assessment with their own resources before applying for a Mobility Project Voucher. The CMO program has resources and guides to support conducting a needs assessment for your community. The needs assessment must satisfy all required program requirements (see [Section 2](#) of this Guide for more details on the needs assessment process).[5]

Project Design Steps

This Guide seeks to help interested and eligible organizations form ideas to submit successful Mobility Project Voucher applications. Applicants may follow the subsequent steps for suggestions on how to design projects and develop voucher applications:

- **Step 1: Decide on the project area.** CMO Vouchers are intended to benefit residents [of eligible underserved California communities](#). Projects need to be responsive to local needs and designed around the local context. Defining the project area is a critical first step in developing a successful application. **Section 1** addresses eligibility criteria and other considerations such as project size and scale.

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[3] See Chapter I of the IM for further information on Mobility Project Vouchers.
[4] See the Section D.6 of the IM for detailed information on new and existing services.
[5] See Section G.1. and O.1 – O.3 of the IM for detailed information on Needs Assessment requirements.

- **Step 2: Find out what community members in the project area want and need.** Once applicants identify a project area, they should conduct a needs assessment to learn more about how residents travel and what types of mobility services would best improve their access to clean transportation. **Section 2** describes the components of a needs assessment and recommended approaches and tools that applicants may use to conduct an assessment.

- **Step 3: Determine what types of mobility services could best meet community needs.** Once applicants engage residents and identify mobility needs in the project area, they will need to propose a clean mobility project such as zero-emission carsharing, carpooling/vanpooling, bikesharing/scooter-sharing, innovative transit services, ride-on-demand services, and fixed-route transit. **Section 3** provides tips for selecting project models that work best for different types of communities and travel patterns, along with a basic goal and objective setting to make sure projects are successfully meeting the transportation needs of the community members.

  > $ Tips for Financial Sustainability
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  > While voucher funding will support your efforts to get a mobility project off the ground, everyone wants to see it succeed over the long-term. In this guide, "financial sustainability" refers to building the cost and revenue approaches that will ensure the project is at least breaking even, after voucher funding runs out. Keep an eye out for financial sustainability tips throughout the document.

- **Step 4: Build a team for the job.** Once applicants identified a project model, they should find project partners to help with project design, development, and implementation. **Section 4** provides insights on partnership considerations, examples from around the State, and an overview of the CMO Clean Mobility Provider Directory. Applicants can then work with their project team to develop details around what equipment they need, how they will promote the project, and how operations will be financially sustainable.

- **Step 5: Describe the project in the Voucher application.** **Section 5** includes summaries and links to the required documents of the Voucher application, including team profile, infrastructure site and needs profile, community outreach plan, financial sustainability plan, and budget. Applicants should refine their application with their project team to ensure community considerations are met.

Section 1: Deciding on the Project Area

CMO Vouchers are intended to benefit residents of underserved communities by providing clean transportation services that help meet their mobility needs. To this end, projects must be within disadvantaged communities (DACs) represented by the top 25 percent scoring census tracts in CalEnviroScreen 4.0, AB 1550 Low-Income Communities, or tribal lands that overlap with either of these.

Applicants must also engage community residents to determine the specific boundaries for a project. A project area too large may make it difficult to provide the best services for residents. Conversely, a project area too small may not allow residents to reap all the benefits of a clean mobility project. Because project areas are where most of the Voucher resources will be directed, applicants should engage residents to better understand where transportation service gaps exist, where the historical inequities lie, and what community residents want in mobility services.

This section provides guidance on how applicants should select an appropriate project area.

What is a Project Area?

Project areas are the geographic area where community residents live and, for Mobility Project Vouchers, where most infrastructure will be installed. Project areas may include specific neighborhoods bounded by major streets, a specific part of the community, or could be non-contagious sites where services will be offered.

Applicants should note that any potential services and infrastructure installed for the project should be mainly located in the project area to deliver benefits to the local residents, however this is **not meant to limit travel to places outside the project area.** While most users will live in the project area, they can use the mobility services to get to jobs, appointments, and other destinations that are not within the project area boundaries.[6]

Eligible Project Areas

For a project to be eligible for funding, the boundaries of the project area are required to be in at least one of the settings listed below. These geographies are also available to view with the CMO Project Area Mapping Tool.

- **SB 535 Disadvantaged Communities (DACs)**: Census tracts that score at or above the 75th percentile (top 25 percent) of CalEnviroScreen 4.0, a tool used to identify areas disproportionately affected by environmental pollution, are eligible. Applicants may visit the link above to determine the percentile of the project area by clicking on the project area and seeing the percentile in the call-out box.

- **AB 1550-designated Low-Income Communities (LICs):** These are areas where the median household incomes are at or below 80% of the statewide median income or otherwise defined as low income by the US Department of Housing and Community Development.

- **Tribal lands, not limited to federally-recognized reservations**, which fall within SB 535 DACs or AB 1550-designated low-income communities.

Size of the Project Area

Project area sizes will vary depending on the results of needs assessments and on the number of residents that can be adequately served by a mobility project. CMO mobility projects are intended to be small-scale. The total allowable budget amount is capped at $1,000,000 for new services, most of which must be spread across the first three years—up to one year of planning and two years of operation. **Applicants should keep in mind that the services must fully operate for a minimum of four years, and they will need to find some mechanism to continue their service operation sustainable during years three and four of the project.**[7] If the CMO Vouchers will be the main source of project funding for the first three years of the project, a good rule of thumb for a project area size may be a Census block group which typically has between 600 to 3,000 residents. If applicants anticipate additional sources of funding could be leveraged, a larger project area may be appropriate for a mobility project.

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[6] See Sections D.1 of the IM for more information on eligible project areas and infrastructure considerations.
[7] See Section E.2 and Table 2 of the IM; note, administrative funds may be applied to years 4 and 5.

However, it might be best to start with a larger project area and narrow it down throughout the process. Starting with a broad project area ensures the mobility service is considered as part of a larger mobility network. As more residents from the project area are engaged, and as they provide feedback as to what services they need, the project area may be reduced accordingly. Selecting a project area size is an iterative process. Applicants may revisit their project area after they establish a project model and in consultation with their project team.

Section 2: Identifying Local Transportation Needs

Tailoring solutions to local needs and preferences expressed by community residents is central to the mobility equity approach embedded in the CMO program. To ensure this outcome, Mobility Project Voucher applicants must respond to community resident transportation needs as identified through a needs assessment. A strong needs assessment identifies local transportation needs and preferences through data analysis and community engagement. Some applicants may be prepared to conduct a needs assessment to meet the requirements for a Mobility Project Voucher application, while other applicants may opt to use an existing needs assessment. In either case, projects will benefit from having resident voices represented in the project design process. Because the project proposal must be derived from the conclusions of the needs assessment, applicants should consider starting this endeavor early in their project design process.

This section provides guidance for learning about transportation needs and preferences based on the needs assessment requirements included in the Implementation Manual.

Components of the Needs Assessment

A CMO Needs Assessment has three major components: **a transportation access data analysis, a community engagement component, and a summary report**. All qualified needs assessments must include these three components as described below:[8]

1. **Transportation Access Data Analysis.** A transportation access data analysis provides insight into the affordability, accessibility, and reliability of existing transportation systems so that applicants can identify areas for transportation improvements. Data analysis from at least three data sources and one residents' survey are required to meet the requirements of a needs assessment. Some methods should include:

    a. **A Resident Survey** that reveals how local residents travel, where they travel, and what new mobility services they would consider using. Applicants may reference and modify the CMO Sample Needs Assessment Surveys to conduct a resident survey.
    b. **Analysis of Existing Data/Indicators**. Data for various equity and access indicators may already be available for the project area from various sources such as the United States Environmental Protection Agency (EPA) National Walkability Index or the Housing and (H+T) Affordability Index. Applicants should also keep in mind that some communities may value some data and indicators over others because they work best to identify their community transportation gaps and needs. Applicants may use the CMO Transportation Access Data Collection Guide for step-by-step instructions on how to find helpful data and indicators.

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[8] See Section O of the IM for requirements and detailed information.

2. **Community Engagement.** Effective community engagement serves to educate community members on the program and to document community perspectives and preferences on mobility services. **The COVID-19 pandemic has severely impacted daily lives and made safe and effective community engagement much more difficult to conduct. Applicants should consider direction from their local department of public health agencies to ensure they follow all relevant social distancing measures to maintain their safety and those of others.** The State's COVID-19 website provides information on how to navigate social gatherings, wear face masks, and more during the pandemic. Nevertheless, Voucher-qualified needs assessments require at least two types of broad-based and meaningful community engagements. Some typical types of outreach and engagements include:

   a. **Partnering with community-based organizations to convene community members** in workshops (virtual/in-person[9]), open-house meetings, focus groups, webinars, or interviews to discuss the project proposal and community transportation needs. Convenings should focus on hearing from community members about their transportation needs and should be convenient and culturally appropriate.
   b. **Presentations with an educational element**, such as visuals and examples that teach the community about the kinds of new mobility options that are eligible for CMO Voucher funding, such as carsharing, bikesharing, and ridesharing. Because residents might be unaware of different clean, shared, and on-demand mobility options that can help them access their destinations, community engagement relies on an educational component so that residents are fully informed about mobility options. Applicants may contact the Program Administrator Team to learn more about relevant engagement for the program.

3. **Summary Report.** Applicants must submit a summary report that links the community's needs with proposed mobility solutions. The report should also include considerations of ongoing community engagement and how the results will be used to inform the project in the future. Some elements of the summary report should include a methodology section that describes how applicants conducted the needs assessment (including steps 1 and 2 above), general observation of the results, key findings, underlying transportation gaps, main factors that will lead to a successful project, and any additional assessments needed for the project.

Conducting a Needs Assessment

Mobility Project Voucher applicants cannot bill for the time of conducting a needs assessment on their Mobility Project Voucher application. **Even if an application is successful and is awarded a Mobility Project Voucher, costs for conducting a needs assessment will not be reimbursable because they occurred before the application was received.** Conducting a needs assessment takes time, and applicants may need to get creative in how they use resources to conduct their assessments in a streamlined way. This section offers a few approaches for conducting a needs assessment in an affordable manner.

A first consideration is whether applicants already have access to an analysis of community transportation needs that satisfy the CMO criteria for the required assessment. To qualify, existing assessments must have been **developed within the past four years, must have engaged residents in the proposed project area, and must have included the three required elements of community engagement mentioned earlier.** Some of these assessments may already have been conducted by local

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[9] Applicants must adhere to local and state health guidelines due to COVID-19.

planning agencies, community organizations, or by academic institutions. Applicants must demonstrate that data sources and community engagement are adequately up-to-date, reflect current community-identified needs, and are representative of the targeted community for the mobility project.

If applicants do not have access to an existing assessment or the existing assessment does not meet all program requirements, they will need to conduct a new needs assessment. The CMO Program Administrator Team is ready to support applicants in conducting parts or an entire needs assessment. Applicants can access individualized technical assistance for needs assessments by submitting a request through the website, calling the hotline, or emailing the Team (please see the contact information on the front cover page of this Guide).

Section 3: Selecting a Project Model

Applicants should select an eligible project model based on findings from the needs assessment. Needs assessment may reveal the types of trips residents take, where and how residents travel, and what types of eligible project models will be successful based on community buy-in and identified needs. Once applicants consider the needs assessment findings, they should consider selecting an appropriate eligible project model.

CMO establishes mobility services as five eligible core project models that include **carsharing, bike or scooter-sharing, carpooling or vanpooling, on-demand transit, and rides-on-demand** with taxis or Transportation Network Companies (TNCs) like Uber and Lyft.[10]

$ Financial Sustainability Tip #1

No matter what you do to raise money for your project, it won't be sustainable if no one is using it. Hearing from local residents about their interest in using different types of mobility services is essential to gauging likely demand and the chances of long-term operation and success. Ask specific questions like, "If affordable dockless scooters were available nearby, how likely would you be to use them on a scale of 1 to 5?"

Different project models work best in different areas and for different trips. Although project models should be responsive to community needs, concepts from the world of transportation planning, such as **population density, trip type, and trip length,** can help applicants screen and select an appropriate project model.

While eligible project models differ in terms of service, what they have in common is that they are both "shared" and "on-demand" services. Shared mobility allows users to rent vehicles on a short-term basis, or hire a driver to provide a ride instead of owning a vehicle. On the other hand, on-demand service allows users to request a vehicle or ride when they need it, rather than relying on a fixed transportation schedule. Shared and on-demand mobility offer convenient, flexible, and personalized travel options that users can access when they need them instead of being obligated to own, drive, insure, and store a personal vehicle.

This section provides guidance on how to choose a viable project model(s) that will meet community needs long into the future.

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[10] See Section D.2. of the IM for detailed information on eligible project models.

Evaluating Needs Assessment Findings

The first step to selecting a project model is to analyze findings from the needs assessment. Applicants should evaluate needs assessment findings to determine the mobility challenges residents in the project area face as well as the mobility service(s) that will best mitigate those challenges. Once applicants evaluate findings from the needs assessment, they will need to select an eligible project model that is responsive to community needs.

Eligible Project Models and Where they Work

Some project models may work better depending on trip distances. Typically, bikeshare/scooter-sharing work best for local, shorter trips, whereas innovative transit services like micromobility work best for mid-range trips, and carsharing and ridesharing services like carpool/vanpool are more suitable for long-range trips, as shown in the figure below.
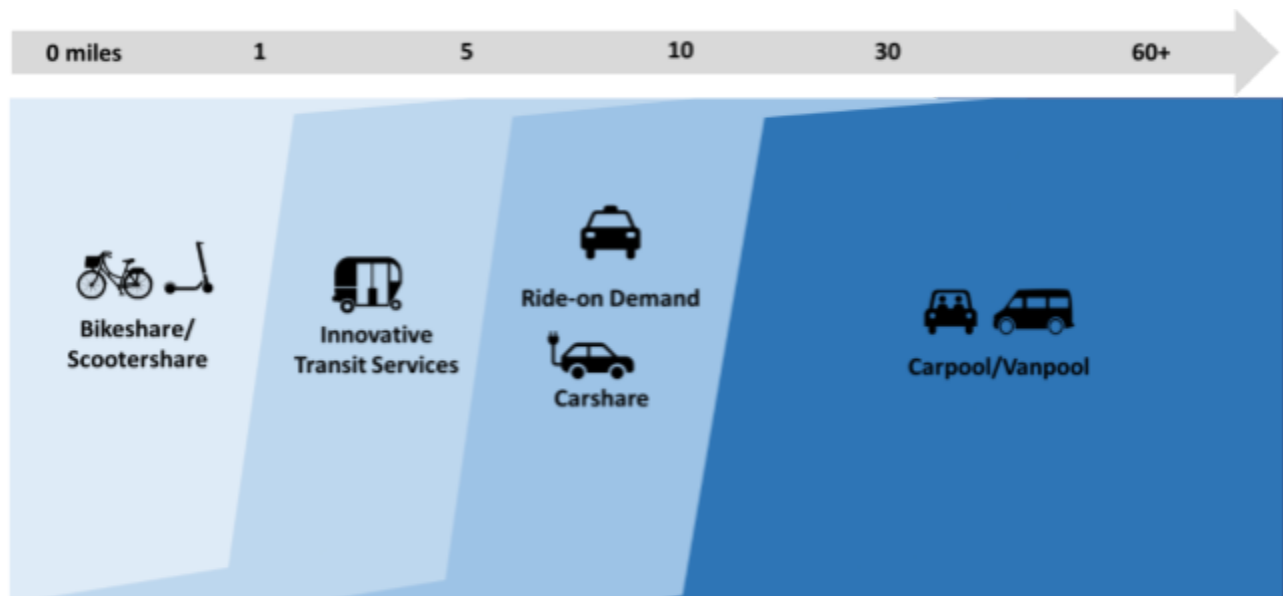

Image Source: Shared Use Mobility Center

The following project models are eligible for the CMO projects:

Bikeshare services offer bikes for short-term rentals on a membership or pay-per-use basis. Most bikeshare services require riders to take and return bikes from docking stations. Some **dockless bikeshare** services simply require bikes to stay within a zone without the need for return stations. However, this type of service requires bikes to be easily found and requires either more bikes, or a smaller service area. Whether docked or dockless, different types of bicycles can be deployed in a bikesharing service. In California, a 'Class I'

Dockless Bikeshare with HOPR (Fremont, CA)
Image Source: HOPR

electric-assist bicycle, or **e-bike**, is fitted with a plug-in, 750-watt battery to assist bikeshare riders with pedaling.

Electric scooter-share offers a similar service as dockless bikeshare, but with entirely self-propelled electric scooters. Scooters come in a variety of designs and can be used up-right or with a seat, offering an alternative to those who are unwilling or unable to use a bike. These are considered 'Class II' electric bicycles that can be used on any paved surface where regular bicycles can operate and do not require a license or helmet.[11] These similarly may only travel up to 20 miles per hour and use a plug-in 750-watt battery.


Scootershare with Spin and Bird (Long Beach, CA)
Image/Source: City of Long Beach

Bikeshare and scooter-share (together sometimes referred to as "micromobility") often work best for:

- **Short-range** trips of up to about five miles for bikes and three miles for scooters
- **First-/last-mile** connections to transit
- **Moderate-to-high density** suburban and urban neighborhoods and centers, with bike and pedestrian infrastructure that allows safe **connectivity.**

Carshare offers members access to vehicles through short-term rentals and comes in a variety of types. Some carshare services allow users to rent a vehicle for an extended period while others offer hourly vehicle rentals that can be used for local errands. Similarly, some carshare services offer services for long-range trips, while others are intended for essential services like medical appointments, grocery trips, or other local needs. For the purposes of this program, carshare services should be available for local needs. Most carshare
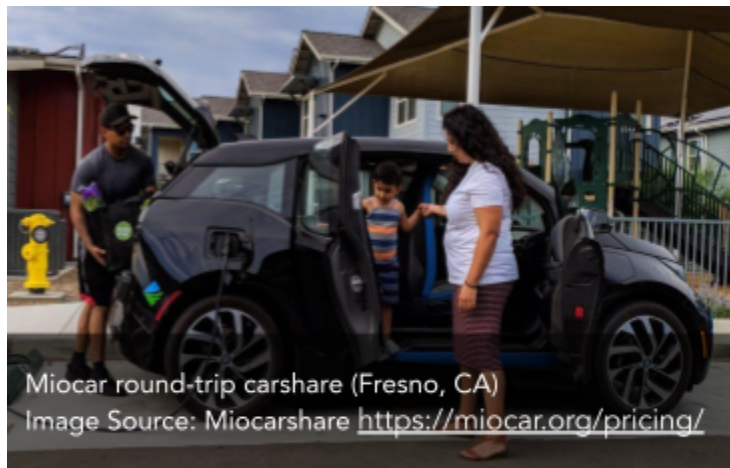
Miocar round-trip carshare (Fresno, CA)
Image Source: Miocarshare https://miocar.org/pricing/

services require members to return the vehicle to the starting location, a designated parking spot in another location, or to a designated zone, like a particular neighborhood or certain residential blocks. Depending on the local mobility needs, these characteristics may vary.

Depending on the type of carshare service, the infrastructure will also vary. When using electric vehicles for carsharing, parking is almost exclusively based around spots with dedicated charging stations. Typically, Level 2 charging stations are suitable for vehicles with 10 to 20 miles range per hour of charge, and DC fast charging is more appropriate for vehicles with a 120 to 240 miles range per hour of charge. Carshare model usually works best for:

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[11] Cal. Veh. Code. § 312.5; § 21200 - 21212; § 21207.5; § 24016.

- **Mid-to-long range** for trips of up to 25 miles for roundtrip service and **short-to-mid range** trips for one-way service, since travel is often limited within a certain area.
- **Moderate-to-high density** urban neighborhoods so that users can easily find available cars within a walking distance.

On-Demand Transit (aka "microtransit") refers to shuttle services with flexible routes and on-demand availability. Unlike carshare and bikeshare, these require **for-hire** drivers that are usually made available through public-private partnerships (P3) or a mass transit operator. Vehicles types can range from short-buses and vans to low-speed 'neighborhood electric vehicles.' Charging requirements differ according to vehicle types, but DC fast charging is often helpful to keep vehicles circulating for rides. On-Demand transit is often effective for:

On-Demand Via van rides (West Sacramento, CA)
Image Source: City of West Sacramento

- **Short-to-mid range** trips of up to 15 miles, depending on the speed of the vehicle.
- **Moderate-to-high** density environments, such as suburban and urban centers with lots of travel but poor **connectivity** that makes biking and walking difficult.

Rides-on-Demand refers to services such as TNCs made popular by Uber and Lyft, but also trips in taxis, pedicabs, or through Volunteer Transportation Organizations (VTOs). These services may also be known as ridehailing or ridesourcing. Rides-on-demand can be shared, where a hired driver picks up several passengers along the way, or for individual passengers. Ridehailing could be an economical alternative to owning a vehicle – users do not have to worry about the costs associated with driving a personal vehicle, including parking costs, fuel expenses, maintenance costs, insurance, and more. To maximize their time on the road, it is best for drivers to have access to DC fast charging (120 to 240 range miles per hour of charge). These models work for all types of trips where transit or paratransit services gaps exist and are often the most effective choice for:

- **Short-to-mid range** trips of up to about 15 miles for quick and efficient service.
- **Low-to-moderate density** environments found in rural communities and suburbs.

Downtown shuttles with Circuit (San Diego, CA)
Image Source: San Diego Business Journal

Rides-on-Demand on Lyft (Palo Alto, CA)
Image Source: The Mercury Times

Ride with Enterprise Carpools (Chula Vista, CA)
Image Source: iCommute SD

Carpooling and Vanpooling refer to shared rides, carrying anywhere from two to about ten passengers, in cases where the drivers are already making that trip for themselves. Because these trips involve advanced coordination between a driver and multiple passengers, vanpools are often best for routine trips between repeat passengers, such as employees commuting to the same work destination. Carpooling comes in a wider variety of models, sometimes pre-arranged like vanpooling, or on very short notice with support of carpool matching apps.

Carpools and vanpools are often the most effective choice for:

- **Mid-to-long range** trips made at consistent times or by consistent groups of riders.
- **Low-to-moderate density** environments found in rural communities and suburbs.

Fixed Route Transit refers to shuttles and circulators, paratransit services, and private sector transit solutions that offer traditional fixed route services. A fixed route transit uses buses, vans or other medium-duty vehicles to provide transportation services on a predetermined route according to a predetermined schedule (e.g., a school bus). Fixed route services typically include printed or posted timetables, and designated stops with marked signage where riders are picked up and dropped off.

Transportation Planning Basics

Transportation planning concepts can help applicants screen and select an appropriate project model that best responds to community mobility needs. Depending on these factors, a project may improve transportation access and generate revenue to sustain the project over the long term. The transportation planning concepts include:

Population Density: the number of potential riders or users in a certain-size project area. Some questions to consider include:

- Is the project located in an urban, suburban, or rural area?
- Are enough people located near the project being introduced?

$ Financial Sustainability Tip #2

All CMO projects will need to generate revenue from user fees or fares as one source that can be relied on after startup funding is gone. As a result, utilization of the services is key to the sustainability of CMO projects. Utilization of vehicle-sharing projects like carshare and bikeshare can be thought of as the % of time the vehicles are in use, while utilization of ridesharing models is reflected in the number of riders over a certain period of time. Either way, utilization is largely determined by whether there are enough users nearby (population density) who can use the service to meet their needs (trip type/length).

Trip Type: the purpose of the user's trip, and their starting-point (origin) and endpoint (destination). Key questions include:

- What destinations have residents said they need to reach?
- Are transportation needs mostly around work commutes, errands, leisure trips, or others? Is a specific kind of vehicle needed for this purpose?

Trip Length: the distance between the origin and destination of a user's trip. Key questions include:

- Are these trips short enough to use electric bicycles or scooters, or conventional bikes?
- Are the trips so long that multiple riders should be taken together to make them more efficient/cost-effective?

Setting Project Goals and Objectives

Apart from selecting an appropriate project model, applicants must also set appropriate goals and objectives to properly evaluate their project success after launching services to the residents. Goals tend to be broad, intangible, abstract, and are generally difficult to measure. On the other hand, objectives are narrow, precise, concrete, and measurable. For instance, a project goal could be to reduce GHG emissions, whereas the objective is the percentage of GHG reduced due to a certain amount of project model use. Fundamentally, the CMO program aims to increase transportation access for residents in low-income communities while reducing GHG emissions. Project goals and objectives should extend beyond these goals to ensure community transportation wants and needs are addressed, the mobility services are financially sustainable after program launch, and when voucher funding is depleted. For more consideration on how to develop goals, objectives, and which metrics to use to evaluate the projects, applicants may visit the Successful Evaluation: Creating SMART Goals and Objectives sheet.

Summary and Next Steps

CMO strives to support communities in the development of sustainable clean transportation systems where users can access transit when available, and use clean and shared modes of transportation when there are service gaps. But just like fixed transit, the success of different shared mobility options often depends on the density and type, and distance of the trip that needs to be made. CMO allows a variety of project models that can be chosen based on the needs assessment and community characteristics.

Once applicants identify the type of service that best fits their needs, they should consider forming partnerships to create the strongest proposal and help offset workloads, as discussed in the following section.

Section 4: Finding the Right Partners

Once Mobility Project Voucher applicants determine the project model(s) that is most desired and suitable for their project area, they should develop partnerships to refine the project design and help with the development of the application. With an experienced team in place, applicants can develop details around questions like what equipment they will need, how they will promote the project, and how the project will be financially sustainable.

This section provides guidance on how to approach building a team around a CMO Mobility Project.

Eligible Applicants

Eligible applicants are categorized into lead applicants and sub-applicants. Lead applicants enter into the voucher agreement with the CMO Program Administrator and assume responsibility for managing the clean mobility project, meeting project milestones, and achieving the goals of the CMO program. The lead applicant may partner with other organizations as sub-applicants, who will eventually become contractors to the lead applicant when a voucher is awarded.
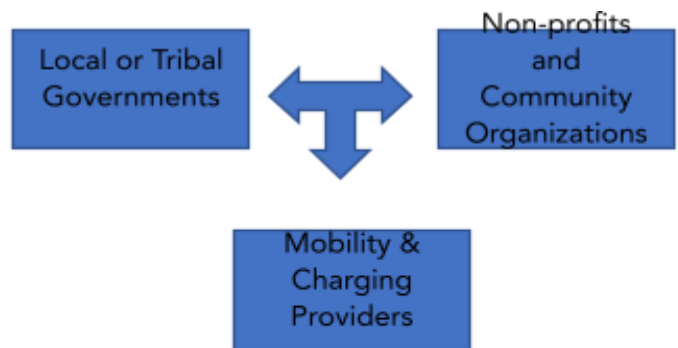
Projects benefit from including diverse partners across the public, private, and non-profit sectors.

Each Project Team must include a team member with at least one year of experience operating mobility services. This partner does not necessarily need to be the operator on the CMO project and can be included on the team either as an applicant (lead or sub) or as a contractor within the first three months after a voucher agreement is signed.

Lead Applicant Eligibility[12]
Lead Applicants must either be a public agency, non-profit organization, or California Native American Tribe consistent with the requirements below:

- **Federal, State, or local government entities based in California**, including but not limited to, City, County, Metropolitan Planning Organization, Council of Government, Joint Powers Authority, local or regional transit agency, local Air Quality Management District, or Air Pollution Control District, and public-school District. Applicants should note:

  o Local special purpose districts such as school districts or library districts can apply independently of the city or county with which they are associated.
  o Individual departments within an agency (such as a City Transportation Department), or individual facilities within a special-purpose district (such as a library or school), can participate with their governing agency or district as the lead applicant. They are not considered distinct applicants from their governing body.

- **Nonprofit organization** that qualifies for tax-exempt status with the Internal Revenue Service under Internal Revenue Code Section 501 and are also tax-exempt under California state law, consistent with the following requirements:

  o The non-profit organization must have been incorporated for at least one year before the time of application submission.

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[12] See Section C.1 of the IM for detailed information.

- o   Non-profit organizations must at all times be in active/good standing with the California Secretary of State.[13]
- o   The organization must be based in California or have at least one full-time staff person based in California.

- **California Native American Tribes**, including all Federally Recognized Tribes in California listed on the most recent notice of the Federal Register, and other non-federally recognized California tribal governments, including those listed on the California Tribal Consultation List maintained by the California Native American Heritage Commission.

Lead applicants may only submit one application for the Mobility Project Voucher in the course of each application window. However, eligible lead applicants may submit up to three applications, only when all proposed project areas are entirely within unincorporated County jurisdiction where no city government represents the project area.

Sub-Applicant Eligibility[14]
Sub-applicants are entities that partner with the lead applicant and other eligible organizations to apply for a Voucher. Sub-applicants can be public sector, private sector, or non-profit organizations. A single entity may participate as a sub-applicant in multiple applications.

Letters of Support and Commitment
Beyond teams of applicants, letters of support should be submitted to demonstrate cross-sectoral and community interest. If the lead applicant is a non-profit organization, a letter of support from a public agency is required to show that the project is supported in the area. If the lead applicant is not a Community-Based Organization (CBO), a letter of support from a project-related CBO or local community group is required to demonstrate the community supports the proposed project. CMO defines a CBO or local community group that meets a minimum of two of the following:

i.   An organization that is place-based, with an explicit geographic focus that includes the proposed project area.
ii.   Staff members, volunteers, or Board members reside in the community where the project will be located.
iii. The organization has a demonstrated track record of at least one year of providing services in the proposed project area.

$ Financial Sustainability Tip #3

All CMO project teams need to identify resources to contribute to the project beyond the voucher funding (known as Resource Contributions). Partners can be a great source for Resource Contributions. For example, local governments or well-established community organizations may have meeting space to donate. Professional mobility operators will likely be able to bring technologies already developed in their other projects. Site hosts may be willing to contribute sites at no-cost if new infrastructure drives traffic to their business. When you're talking to potential partners, ask if they can get creative with Resource Contributions!

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[13] Certain non-profits that are tribally chartered corporations under tribally enacted laws may be exempt from registration with the California Secretary of State.

[14] See Section C.2 of the IM for detailed information.

Building a Team

Lead applicants should consider developing partnerships because mobility projects are complex and require numerous areas of expertise. Some of the responsibilities include outreach, marketing, operations, infrastructure installation, maintenance, and more. Building partnerships is also a great way to reduce the costs of offering services and to identify resources that will sustain the project for the long term.

When thinking about the types of partnerships that applicants want to pursue, they should consider key questions about the team's capabilities in areas such as outreach, operations, and construction. If the answer to these questions is "no," applicants should consider finding additional partners to fill the gaps:

- Do team members know the local landscape well enough to conduct meaningful and effective community outreach?
- Has the team provided quality mobility services in the past, like bikeshare, carshare, or something similar?
- Are team members experienced in convening stakeholders and have they done so effectively in the past?
- Is a member of the team comfortable overseeing the operations of your project?
- Has a team member installed infrastructure or navigated construction permitting processes?

These questions are not exhaustive, and applicants will have to identify the areas where they need support to create a viable project. Most importantly, because CMO funding is only for three years (one year of planning and two years of operation) and the project needs to be implemented for two additional years without the Voucher support, applicants have to think about the financial sustainability of their project.

The CMO Program Administrator Team could be a helpful "match-making" resource for applicants interested in connecting with one another to form teams. To facilitate partnerships between applicants and mobility providers, the CMO Program Administrator Team has developed a Clean Mobility Provider Directory, an informational resource to support lead applicants in identifying mobility operators suitable for their communities in an informed and timely fashion. The Directory lists pre-screened[15] mobility operators along with the services they provide and their unique approaches to questions like social equity, data-sharing, and others. While the Directory may be a helpful resource, applicants are not required to partner with Directory entrants. Applicants should note that inclusion in the Directory does not constitute an endorsement by CARB or a recommendation for use.

Beyond the Directory, applicants can contact the Program Administrator Team to request introductions to like-minded and complementary organizations in their area.

Examples of Effective Partnership Approaches

Green Raiteros, BlueLA, and Our Community CarShare are some of the earliest clean mobility projects in California's disadvantaged communities. Each project approached partnerships differently to reflect their unique circumstances and help reach their overall mobility project goals. This section reviews each case

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[15] Prequalified organizations must 1) Have at least a year of experience operating mobility services and 2) Must be registered to conduct business in California and in good standing with the California Secretary of State.

study to help demonstrate examples of effective partnership approaches to develop clean mobility options.

Green Raiteros offers all-electric rides on-demand to Fresno from the predominantly Latinx and agricultural families in the rural Central Valley of California. Green Raiteros was initiated by the Latino Environmental Advancement and Policy Institute (Valley LEAP), a Fresno-based non-profit dedicated to community empowerment. Because of the small size of the program and LEAP's longstanding relationship with local residents and volunteer raiteros, LEAP was best suited to lead outreach and marketing, as well as day-to-day operations such as driver recruitment and ride scheduling. Charging for the two Chevy Bolts and a BMW i3, however, was facilitated through two partnerships with EV charging companies: EVgo supplied 10 Level 2 chargers at a hub where the vehicles are parked overnight, while Electrify America built 12 more Level 2 chargers across three apartment complexes.

Green Raiteros team (Huron, CA)
Image Source: Shared-Use Mobility Center

Charging through EVgo (Fresno, CA)
Image Source: University of California - Berkele

Blue LA is a public, all-electric carsharing service led by the Los Angeles Department of Transportation (LADOT) and mobility operator BlueSystems, funded in part by CARB's Clean Mobility Options program. While city staff and BlueSystems had the technical expertise to lead operations and installation of public chargers with support from Shared-Use Mobility Center (SUMC), communities in their project areas often faced specific challenges related to language barriers or financial limitations. SUMC worked with several community-based organizations—the Koreatown Immigrant Workers Alliance (KIWA), the Salvadoran American Leadership and Educational Fund (SALEF), and TRUST South LA—to form the BlueLA Steering Committee. The committee used their local knowledge to shape the BlueLA program and helped recruit neighborhood outreach ambassadors to publicize the program.

BlueLA all-electric carshare (Los Angeles, CA)
Image Source: Shared-Use Mobility Center

BlueLA community outreach (Los Angeles, CA)
Image Source: Shared-Use Mobility Center

Our Community CarShare is a carsharing service offered to residents around three affordable housing sites in Sacramento. The project featured partnerships between the Sacramento Air Quality Management District, the Sacramento Housing Redevelopment Authority (SHRA), Mutual Housing, Sacramento Municipal Utility District (SMUD), Policy in Motion, Breathe California, the City of Sacramento, and Zipcar. The agencies and housing sites provided the necessary infrastructure and permitting to install the electric vehicle supply equipment and Zipcar was selected to operate a fleet of electric vehicles to the housing sites. Specifically, the City and Mutual Housing provided the necessary parking spaces for the vehicles, while Breathe California and Policy in Motion led community outreach to engage residents to use the services, and Zipcar led the reservation for cars. By leveraging the expertise of a team of experts, the program was able to maximize project benefits by providing users consistent access to vehicles and charging equipment.

Vehicle while charging (Sacramento, CA)
Image Source: SMAQMD

Our Community Carshare (Sacramento, CA)
Image Source: SMAQMD

Public-Private Partnerships for Mobility Operations

In some cases, lead applicants may wish to partner with private or for-profit companies that have experience operating shared and on-demand mobility services. Professional operators can offer expertise in areas where lead applicants may have less experience, such as:

- Vehicle procurement
- Vehicle telematics and other hardware
- Payment platforms

- Reservation / dispatch systems
- Routing technology
- Vehicle fleet management
- Insurance/risk management
- Data management

How these partnerships are structured will vary from project to project, and may not always be as simple as paying a certain fee for a promised product. A basic understanding of mobility company business models—essentially, how they generate revenue—will help applicants in negotiating a partnership arrangement that can best meet the project goals, including social equity and financial sustainability.

Private sector partners will usually rely on one or two key business models known by the shorthand "B2G" and "B2C." These companies may see CMO projects as a hybrid of the two business models, as described below:

B2G (Business-to-Government): In a B2G model, a mobility service is paid for by a government (or non-profit) entity using public funds. Agreements often take the form of "fee-for-service" contracts in which an agreed amount is paid for a certain level of service. Public-private partnerships in CMO projects will almost always have a B2G component since Voucher funds would be paid to mobility operators in return for commitments to provide services in a certain way.

B2C (Business-to-Consumer): In a B2C model, individual consumers access and pay for a mobility service directly, often on a pay-as-you-go (PAYG) basis for each use and sometimes through other user fees, such as a one-time sign-up or recurring subscription fees. All CMO projects are required to generate revenue from end-users, and in this sense will have a B2C component. However, because voucher funding is added to the mix, projects do simply need to be transactions between companies providing market-rate services and the customers who can afford them. Vouchers can be used to adjust the B2C model in ways that promote greater transportation access and social equity while also minimizing and spreading risk among the partners. Examples of this "hybrid" B2C-B2G approach include:

- Price subsidies: Lead applicants using voucher funding to subsidize private operators to reduce the price paid by end-users.
- Revenue-sharing: Mobility companies agreeing to share revenue generated with the lead applicant and other partners when it exceeds a certain amount.
- Revenue guarantees: Lead applicants using voucher funding to cover revenue shortfalls for the private operators, below a certain amount.

While these "business school" concepts may help applicants in negotiating public-private partnerships, mastery of the ideas is not necessary for finding a good partner and a good deal. Mobility companies should be expected to explain how they work in clear language and to be open to various ways of working together. The Clean Mobility Provider Directory is a good place to start finding companies that have described their approaches to such considerations as safety, data management, insurance, and

equity considerations. Beyond the Directory, applicants can always request partnership assistance from the CMO Program Administrator Team at the CMO website.

Section 5: Develop the Application

Developing a Mobility Project Voucher application takes time and all voucher applicants are encouraged to start developing their application with enough time to evaluate their program materials. This section includes links to the project components and application materials that applicants will need to submit to receive a Mobility Project Voucher award.

Refine Project Design

Before applicants begin to develop their application, they should leverage their partners' expertise to refine their project design. For starters, project teams should reevaluate whether project areas need to be larger or smaller based on team capacity and community input. Teams should also reconsider infrastructure needs and determine how to make a project feasible for a community. If, for instance, the needs assessment identified that residents want carshare services readily available in the project area, the project team should develop a plan to respond to community feedback accordingly. Community outreach plans should also be revisited to ensure that residents are engaged, educated, and informed about new potential clean mobility projects. And project service models should be further discussed to ensure the financial sustainability of a project. Designing a project is an iterative process, and gathering team input is another critical step to developing a project that is successful in the long run.

Mobility Project Voucher Application

Once applicants refine their project design to address the details of their project proposal, they should develop their application in accordance with eligibility requirements and project criteria listed in the Implementation Manual. In order for Mobility Project Voucher applications to be evaluated, the entire application must be completed; incomplete applications may not be considered.

- Mobility Project Voucher Application

Applications submitted outside of the application submission window will also not be considered. Applicants should also consult the application guide to ensure they are submitting a complete application with all required attachments and documentation.

Next Steps

This Guide presents CMO applicants with concepts and tools to help design mobility projects and voucher applications. Applicants who have questions about their project design, or who would like to receive additional technical assistance for project development, are encouraged to contact the Program Administrator Team via the methods below:

Program Website: www.cleanmobilityoptions.org

CMO Hotline: 626-744-5670
(Available Monday to Friday, 9 AM- 5 PM Pacific Time)

Email: **info@cleanmobilityoptions.org**