Powered Micromobility Device Lending Libraries

Framework for a State Grant Program & Characteristics of Successful Programs

Final Report

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Joint Transportation Committee
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INTRODUCTION

The Washington State Legislature directed the Joint Transportation Committee (JTC) to examine options and provide recommendations for: "…a state program to assist with the establishment of powered micromobility device lending libraries. The purpose of the powered micromobility device lending libraries is to provide low-cost or no-cost, reliable, and healthier modes of transportation to vulnerable communities. It is anticipated that the powered micromobility device lending libraries would be managed by community nonprofit organizations, local governments, higher education institutions, school districts, or federally recognized tribal governments. The options that should be examined include, but are not limited to: A state-funded grant program for the purchase of powered micromobility devices to be used in powered micromobility device lending libraries, direct technical assistance for establishing community-based powered micromobility device lending libraries, and direct-to-consumer incentives to applicants to purchase powered micromobility. Recommendations must specify how to prioritize program benefits for vulnerable populations and overburdened communities, including tribes, seniors, low-income populations, and communities with high environmental burdens. Powered micromobility devices to be examined by this study are devices that do not exceed product speed of 30 miles per hour or product weight of 100 pounds and include electric bicycles, electric cargo bikes, electric standing scooters, and other mobility devices under 50 pounds in weight that do not use fossil fuels." (Legislature, 2022)

This report explores the possible framework for a state grant program and characteristics of successful powered micromobility device lending library (PMDLL) and incentive programs, noting insights gained from an extensive literature review and interviews with those currently and formerly operating programs in the United States. The characteristics identified in the report address several broad categories: program model options; initial set-up; ongoing operations and administration; approaches to reach vulnerable populations and overburdened communities; and purchase incentives.

There are limited publicly available details on PMDLL programs, and so this report relies heavily on interviews with practitioners and funders. Those with experience in this arena have been generous with their time and expertise and are noted in the Acknowledgements section at the end of this report.

Report methodology

The information contained in this report was obtained through staff interviews and a review of online and print resources from various sources, including:

- US Department of Transportation, Federal Highway Administration
- National Conference of State Legislatures (NCSL)
- National Association of City Transportation Officials (NACTO)
- Portland State University, Transportation Research and Information Center
- Washington State Department of Transportation, Active Transportation Division
- City of Denver
- Waterside Workshops

- City of Berkeley
- Grid Alternatives
- Shared Mobility Inc.
- Western Washington University
- Lime

Details on online and print sources used in this report can be found in the References section at the end of this report.

EXECUTIVE SUMMARY

In the past decade, lending libraries have taken on new collections beyond traditional books to serve communities. During a similar timeframe, the availability and use of e-bikes, e-scooters, and e-cargo bikes has grown dramatically. Additionally, various entities (including non-profits, universities, cities, etc.) have stood up e-bike lending libraries over the past several years with a variety of funding sources.

This study was centered on examining options and providing recommendations for a state program that could assist with the establishment of powered micromobility device lending libraries (PMDLL) and direct-to-consumer incentives for PMDLL users to purchase powered micromobility devices[1]. This report explores "promising practices" that are defined as having been used successfully in at least one program to establish, meet, or exceed the goals initially set by the program. Staff interviewed practitioners and funders to gather information on current practices used successfully around the country for PMDLL and incentive programs. Web and print resources with details on PMDLL are limited. A prior study on PMDLL generally as well as sources of best practices identified for PMDLL could not be found. Incentive programs are now extensive throughout the world, and good research including suggested program framework is available on this topic and referenced within this report.

The entities interviewed for this study were asked to be thorough and candid and therefore all interviews were off-the-record. Each recommendation and characteristic is not applicable to any one interview or source. Those that were interviewed were well versed on the topic, provided deep insights, and gave of their time with no compensation. They are listed in the Acknowledgements section.

[1] Powered Micromobility Devices for the purposes of this study are defined as devices that include electric bicycles, electric cargo bicycles, and electric standing scooters weighing 100 pounds or less that do not use fossil fuels. The other category of powered micromobility device identified in the proviso ("other mobility devices under 50 pounds in weight that do not use fossil fuels") was not discovered in research related to PMDLL or incentive programs.

BACKGROUND

Powered Micromobility Devices

The Federal Highway Administration broadly defines micromobility as any small, low-speed, human- or electric-powered transportation device, including bicycles, scooters, electric-assist bicycles, electric scooters (e-scooters), and other small, lightweight, wheeled conveyances. For purposes of this report, the focus is upon powered micromobility devices including e-bikes, e-cargo bikes, and e-scooters, weighing 100 pounds or less. (Price, Blackshear, Blount, & Sandt, 2021) (Legislature, 2022)

E-bikes (including e-cargo bikes) and e-scooters are presently widely available throughout the United States for sale from retailers, in both brick-and-mortar as well as online stores. Between 2018 and 2021, the number of e-bikes sold annually in the U.S. increased from less than 300,000 to over 1 million. Much of this growth was due to the COVID pandemic "bike boom", yet e-bike growth continued through 2021, while conventional bicycle sales returned to historic rates. E-scooter sales figures are hard to estimate, but most estimates indicate e-scooter sales are between 5-10% of e-bike sales. (Bennett, MacArthur, Cherry, & Jones, 2022)

E-bikes and e-scooters are also available for loan through shared service operated by private entities and local governments in dozens of regions across North America. Often jurisdictions where the shared services operate have requirements for that service operator to provide low-income residents free or reduced-fare rides. These details are handled by the jurisdiction and shared service provider through contracts. Shared service ridership on e-bikes and e-scooters has grown consistently since 2010, with 65 million trips in 2020 and 112 million trips in 2021. (North American Bikeshare and Scootershare Association (NABSA), 2023) (National Association of City Transportation Officials (NACTO), 2022)

Lending Libraries

In recent decades, the definition of a lending library has expanded beyond books. Traditional book lending libraries in cities throughout the US now loan tools, craft supplies, electronics, cooking implements, artwork, toys, telescopes, and other rare and/or expensive items. Additionally, non-profits have developed lending libraries that serve their communities. (Williamson, 2014)

Powered Micromobility Device Lending Libraries (PMDLL)

Powered micromobility device lending libraries (PMDLL) are most often a program of a non-profit with a biking focus. These PMDLL are mainly funded by non-profits, utility companies, and state and local governments. PMDLL, though not widespread, have been established throughout the United States. In recent years, public funding that can be utilized for PMDLL has become available through low-carbon grant programs, many of which have been funded by taxation of carbon emissions. PMDLL are often an eligible recipient category for these grant programs. (Transportation Research and Education Center, Portland State University , 2022)

The Portland State University Transportation Research and Education Center maintains the E-Bike Incentive Programs of North America Tracker which has vast information on powered micromobility programs throughout the U.S. and Canada, including details on e-bike lending libraries.

PMDLL in Washington State

Included in the 2023-25 biennial transportation budget (chapter 472, Laws of 2023 (ESHB 1125)) is funding for the Washington State Department of Transportation (the department) to: "…establish an e-bike lending library and ownership grant program. The department may accept grant applications from other state entities, local governments, and tribes that administer or plan to administer an e-bike lending library or ownership program for their employees for commute trip reduction purposes. The department may also accept grant applications from nonprofit organizations or tribal governments that serve persons who are low-income or reside in overburdened communities and that administer or plan to administer an e-bike lending library or ownership program for qualifying persons.[2] Grant recipients must report program information and participation data to the University of Washington…"

FRAMEWORK FOR A STATE PROGRAM

Research through interviews and print resources for this study provided the opportunity to find common success attributes in a variety of program types and models that are utilizing powered micromobility devices. At present, there is not a state with a state-run grant program specific to PMDLL. Washington State will be the first. In addition, grant program attributes of existing Washington State WSDOT Active Transportation grant programs and grant programs in other parts of the country related to powered micromobility were evaluated. Three overarching categorizes of recommendations and considerations for a state grant program are explored below.

1. Supportive administration

Interviews with people from all types of program models indicated that effective PMDLL programs begin with clear expectations and roles for the participants, the host organization (grantee), and funder (grantor). This clarity should be reflected in the master grant application and its supporting documents created by the grantor. Those documents generally outline which components and at what level of detail the grantor requests the potential PMDLL program should be explained within the application. Requesting specific details rather than broad ideas is ideal. In addition, the grantor should provide technical support (through a bidders' conference, one-on-one consults, etc.) to review potential options for the various program categories (noted in the next section). This technical support helps ensure the proposed program is viable before the application is submitted. Outreach to organizations that could be well suited to establishing a PMDLL is also something to consider. Scoring categories for the application should be clearly laid out in a rubric and be available to potential grantees at the time of application. A scoring category (or categories) related to program benefits for vulnerable populations and overburdened communities, including tribes, seniors, low-income populations, and communities with high environmental burdens should help prioritize these

[2] Article VII, section 5 of the Washington state constitution prohibits a gift of public funds. The purpose of the prohibition is to "prevent [public] funds from being used to benefit private interests where the public interest is not primarily served." Japan Line, Ltd. V. McCafree, 88 Wn.2d 93, 98 (1977). In determining whether an expenditure amounts to a gift of state funds, courts utilize a two-step approach. First they examine (1) whether the expenditure carries out a fundamental purpose of the government and if not, (2) the court focuses on the consideration and donative intent. The support of Commute Trip Reduction programs and the support of low-income persons are areas where the state currently provides public support to private individuals.

applications for funding. A state grant program should also avoid setting requirements that create high burdens that may prevent potential applicants from being viable (for example, requiring small non-profits to hold large amounts of liability insurance), to the extent practicable.

2. Community centered

Successful programs with strong utilization begin with setting community centered goals to identify the appropriate program model and to construct a detailed implementation plan. Categories within the scoring rubric of a grant application should consider several aspects to ensure it is a community centered proposed program. Attributes such as collaboration, demonstrated need, population served, and local support could be scored. For example, an applicant that has both community-based expertise and bike know-how combined with serving an area with high density where parking is a problem and the availability of other transportation options is low, and a local business partner that has a secure building/location to house the e-bikes and host the PMDLL site would rank high.

3. Flexibility

There is not a one-size-fits-all model for successful PMDLL programs, and most encounter challenges along the way to implementation. However, several program operators indicated those grantors that allow the grantee to be nimble, recover from "failure" or a "dead end", and have a moveable end date (if applicable) will also allow the grantee to be innovative in problem solving as the program gets underway. This should be paired with a hard deadline for the initial program launch, to ensure the grant funds are being utilized for the intended purpose.

CHARACTERISTICS OF SUCCESSFUL POWERED MICROMOBILITY PROGRAMS

This section aims to provide promising practices for PMDLL grantees and grantors to consider. Potential grantees considered for the purposes of this study are community nonprofit organizations, local governments, higher education institutions, school districts, or federally recognized tribal governments. The information in this section was gathered from interviews conducted with currently operating and closed PMDLL programs.

I. Program models

Program goals will help determine the program model that may be most effective. Program goals typically center around serving one of three purposes:

a) Provide an opportunity for people in a community to test ride a powered micromobility device (device) for a set duration, with the intention of reducing barriers to purchasing a device
b) Create community access to a low/no cost form of transportation
c) Offer an extended lending period or create an "earn-a-bike" device program so that devices are utilized ongoing as an alternative to cars, for work and other transportation needs

In addition, operating a PDMLL with goals that center around job training or providing an internship can provide additional benefit. Defining the program goals and program model at the outset of the

project is important to inform the initial set-up and ongoing administration of the PMDLL. More details are explored below.

II. Initial Set-up

Key elements of PMDLL programs include the following:

- Establish a goal and choose a program model (see Section I above)
- Liability insurance
- Device purchase
- Device maintenance & repair
- Clear parameters for participation
- Tracking of metrics and data
- User agreement
- Staff time dedicated to operations

1. Liability insurance

Identifying the owner of the devices is important at the outset of the project. PMDLLs are often grouped in with e-bike and e-scooter shared services for purposes of liability insurance, which is quite costly. For this reason, it is important to consider ownership of the devices upfront - whether it is the funding entity, the organization operating the program, or the individual using the device (especially in an "earn-a-bike" program model). Once ownership is established, it is helpful to have the funding entity or organization operating the program utilize an existing insurance provider to see if bundling with its existing liability insurance is feasible in reducing costs, and to get quotes from other providers to use for comparison.

2. Device Purchase

When purchasing devices for the PMDLL, the grantee should consider best value over initial purchase price. Ease of maintenance and repair should be at the forefront of any purchase decision. Additionally, the type of device best suited to the target population, ease of removing the battery, locking mechanism for the battery, location of the battery (to assist with centering weight), and longevity of the equipment should all be evaluated. Whether or not these devices would also be available for ultimate purchase and/or ownership is also a factor in choosing the type and manufacturer. For example, while most bike shops now offer repair on e-bikes, they are not guaranteed to fix all makes and models or be able to acquire parts for all makes and models. To ensure a long lifecycle of the device, this limitation should be thoroughly investigated at the start of the project. An additional lifecycle consideration is the potential future home of the device (and how that would need to be facilitated) as it approaches end-of-life, or if the program has a known limited duration (for example, a pilot project for a period of only a year or two).

3. Device maintenance & repair

The entity purchasing the devices should establish a plan for maintenance and repair at the time of device purchase. This could include establishing a contract with a local bike shop, engaging a non-profit or job training program that provides this service, or purchasing a maintenance and repair contract

from the retailer that is selling the device. It is also critical to consider and establish parameters for the maintenance and repair plan. For example, will the technician go to where the bike is, or require the bike be transported to a shop; will the user or the program operator request the maintenance or repair; what is the promised turn-around on maintenance and repairs, etc.?

4. Clear parameters for participation

Indicating the parameters for participation is helpful to communicate with potential users upfront. These categories may include, and are not limited to: age; affiliation/residence; income; cost/security deposit; storage requirements; required data collection and surveys; smartphone access/utilization (for data collection); experience riding bicycles; and mandatory orientation.

If there is an eligibility requirement, state that and how the applicant can prove their eligibility. For example, if they must live in a certain jurisdiction, indicate the types of address verification that is accepted (utility bill in their name, rental agreement in their name, etc.). If they must meet an income threshold, identify the types of programs they may already be qualified for that could be utilized to verify income (i.e. Apple health, SNAP benefits, etc.).

5. Tracking of metrics and data

Defining the data and metrics that would be valuable for any research component of the program is critical to identify before opening it up to users. Some data considerations are: requiring users to upload travel data when utilizing the device (and addressing any privacy considerations); committing to a series of surveys while they utilize the device (at initial checkout, during loan period, at return); and tracking mileage (if not engaging a geographical tracking application). Make certain these meet the reporting requirements for the grantor. These requirements should also be included in the User Agreement.

6. User agreement

The User Agreement should provide clear written parameters for participating in the program. This includes, but is not limited to: any security deposit required and when and under what circumstances it will be refunded; details on the information that will be collected from the user while using the device; the requirements for storage of the device (type of lock(s), removal of battery, secure space, etc.); expectations for maintenance and repairs (who should these be performed by and who is responsible for the cost); duration of lending period; and any check-ins required during the lending period (with or without the device present). In programs that offer an ownership component, there may be so much demand that an application process should also be engaged, and a lottery for selection of users/owners.

7. Staff time dedicated to operations

Identify staff or volunteers that are needed to administer the program according to the parameters set. For example, if the PMDLL devices will be available for check-out only once each week, volunteers could staff that type of PMDLL. If the PMDLL will be open for 7-day/week check-outs/check-ins, a full or half-time paid staff is likely required. In addition to the check-in/check-out function, there is: the logistics of set-up at that site; consideration of training the user on that particular device; fielding

questions that come up while the device is with the user; arranging maintenance and repairs (both planned and unexpected); collecting and entering of data; as well as meeting the reporting requirements for the funder.

III. Ongoing Operations & Administration

The basic operations for a PMDLL are noted above in Section II, item 7. In addition, ongoing success also depends upon having a program that the community is excited about and has use for during the duration of the program. One of the ways to achieve this is through marketing of the program. It is an often overlooked and enormously successful way to ensure the program is reaching the target audience. Calling upon community partners is the most effective, simplest, and often least expensive way to go about getting the word out about the program. That said, hiring staff to work as an ambassador for the program is also effective and can maximize utilization to create broader program success.

IV. Approaches to reach vulnerable populations and overburdened communities

Those that already serve and have established relationships within a community are a good choice generally for hosting a PMDLL. Programs administered by community-based organizations (CBO) are often very effective in reaching vulnerable populations and overburdened communities. The CBO having or developing bike knowledge or partnering with a bike focused entity on the program maximizes success. The bike focused entity could be another non-profit, transit agency with bike program focus, or a bike shop. Key support these biking entities provide include biking know-how and instruction, bike maintenance and repair (either performed for free, a fee, or through teaching participants bike maintenance and repair), and organizing rides.

Reaching vulnerable populations and overburdened communities is often best achieved through engaging a local community based organization (CBO).

Partnership with a bike focused organization maximizes benefits.

To encourage successful partnerships, a scoring category (explored also in the Framework For A State Program section) that addresses this in grant applications is a way of supporting and counting this benefit to the potential program. To ensure the program is serving the intended population, grantees and the grantor should consult the resources provided by the Environmental Justice Council, the Washington State Health Disparities Map, and the Washington State Overburdened Communities Map. Census data could also be utilized.

V. Purchase Incentives

Purchase incentives are currently offered by utility companies/power districts, local and state governments, nonprofits, private entities, and air quality management authorities. In May 2022, a White Paper was published by the Portland State University Transportation Research and Education Center (TREC) with significant resources and details on strategies to reach a broad population and maximize benefits for targeted purchasers. A summary is noted below and additional tools from the White Paper are included in the Resources section at the end of the report. Additional research

utilizing a public survey to identify optimal thresholds for incentives is envisioned but has not yet been completed.

The TREC study identified 75 e-bike incentive programs (including pilot, active, and closed) in the U.S. and Canada to evaluate. It was discovered that purchase incentives are most often provided as cash incentives either as post-purchase rebates or point-of-sale discounts. Incentive amounts range from $100 to $1,365 for the general public, and the majority of incentive program benefits fall within the $200-600 range. Many programs offer a higher incentive amount for income-qualified applicants.

Interviews were conducted with program managers, industry leaders, and academics to develop a set of recommended practices and considerations for program design. Major recommendations were:

- Include as wide a variety of e-bike model choices as possible;
- Consider higher incentives for those that are income-qualified and for higher cost bikes (e.g., cargo e-bikes);
- Include online retailers as an option for purchase within the program;
- Encourage strategic partnerships, which are likely a catalyst for success; and
- A focus on evaluation at the outset of the program will help ensure the ability to later assess operations and the effectiveness of the program, compared to initial goals

(Bennett, MacArthur, Cherry, & Jones, 2022)

DEFINITIONS

Lending Library a library from which materials are lent (Merriam-Webster Dictionary)

Micromobility Device small, low-speed, human- or electric-powered transportation device, including bicycles, scooters, electric-assist bicycles, electric scooters (e-scooters), and other small, lightweight, wheeled conveyances. (USDOT definition)

Overburdened Community means a geographic area where vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020. (RCW 70A.02.010 (11))

Powered Micromobility Device includes electric bicycles, electric cargo bicycles, and electric standing scooters weighing 100 pounds or less that do not use fossil fuels. The other category of powered micromobility device identified in the study proviso ("other mobility devices under 50 pounds in weight that do not use fossil fuels") was not discovered in research related to Powered Micromobility Device Lending Libraries or incentive programs. (study definition)

Promising Practices are defined as having been used successfully in at least one program to establish, meet, or exceed the goals initially set by the program (similar to U.S. federal agency program guidelines)

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Beth Hartsoch, Associate Director of Western Washington University's (WWU) Office of Institutional Effectiveness (formerly faculty advisor to WWU's PMDLL pilot project, which concluded in 2018)

Hayden Harvey, Senior Manager, Government Relations PNW, Lime

Neil Larsen, Executive Director, Waterside Workshops

John MacArthur, Sustainable Transportation Program Manager, Transportation Research and Education Center (TREC) at Portland State University (PSU)

Sarah Moore, Sustainability Program Manager, Energy and Sustainable Development, City of Berkeley

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Douglas Shinkle, Associate Director, Environment, Energy & Transportation, National Conference of State Legislatures (NCSL)

Brian Wood, Active Transportation Programs Specialist, Active Transportation Division, Washington State Department of Transportation (WSDOT)

REFERENCES

Bennett, C., MacArthur, J., Cherry, C. R., & Jones, L. R. (2022). *Using E-Bike Purchase Incentive Programs to Expand the Market - North American Trends and Recommended Practices.* Portland, OR: Transportation Research and Education, Portland State University.

Legislature, W. S. (2022, March 25). Engrossed Substitute House Bill 5689, Section 204 (11). *Transportation Budget -- Supplemental*. Olympia, Washington.

National Association of City Transportation Officials (NACTO). (2022). *Shared Micromobility in the U.S. 2020-2021.* New York: National Association of City Transportation Officials (NACTO).

North American Bikeshare and Scootershare Association (NABSA). (2023, March 24). *Micromobility 101 webinar.* Retrieved from https://nabsa.net/2023/03/24/shared-micromobility-101/

Price, J., Blackshear, D., Blount, J. W., & Sandt, L. (2021, Spring). Micromobility: A Travel Mode Innovation. *Public Roads*, 8-13. Retrieved from U.S. Department of Transportation, Federal Highway Administration.

Transportation Research and Education Center, Portland State University . (2022, January 19). *E-Bike Incentive Programs of North America Tracker*. Retrieved from https://docs.google.com/spreadsheets/d/1C-sYcwLrQFsr8r2A6RiAP2RwGsBNwr1BKOF_HJvCsVU/edit#gid=0

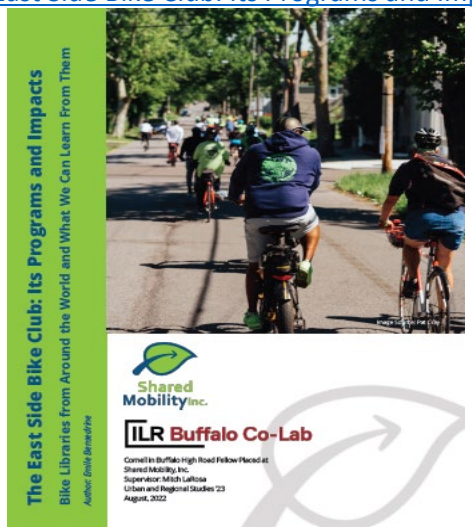
Williamson, L. (2014, September 9). *Taking A Long-Overdue Sledgehammer To The Public Library*. Retrieved from Fast Company: https://www.fastcompany.com/3035406/taking-a-long-overdue-sledgehammer-to-the-public-library

RESOURCES

Thank you to the programs and people that shared a wide variety of resources that may be useful to those exploring PMDLL. The resources noted below are organized into three categories: research; templates; and articles and websites of interest.

RESEARCH

[Shared Mobility Inc. IRL Buffalo Co-Lab report on The East Side Bike Club: Its Programs and Impacts]



Report published August 2022

[E-Bike Research, Transportation Resource and Education Center, Portland State University]

Report published May 2022

[USDOT FHWA Shared Micromobility and Equity Primer]

Last updated May 2022

National Institute for Transportation and Communities – [Evaluation of an Electric Bike Pilot Project at Three Employment Campuses in Portland, OR]

Report published February 2017

[E-bike Incentive Programs of North America Tracker]

TEMPLATES

Western Washington University (WWU) E-bike lending library pilot project examples –

- E-bike training ideas
- E-bike orientation
- E-bike demo how-to
- Frequently Asked Questions (FAQ)
- How You Can Ride

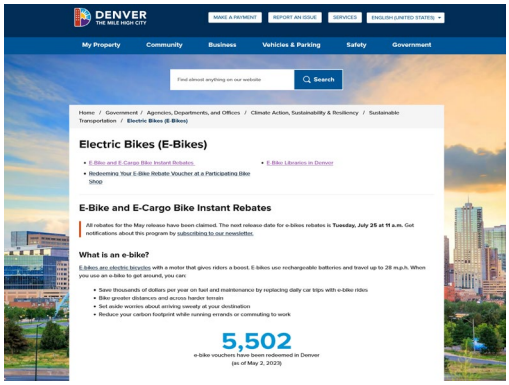
Application prioritization equity scoring example from Washington State Department of Transportation (WSDOT): SAMPLE – Grant Program Equity Consideration - **see Appendix**

City of Berkeley Pilot Climate Equity Fund Programs: SAMPLES – Request for Proposals (RFP) and Contract for micromobility equity project – **see Appendix**

TREC PSU Recommended Practice for Incentive Program Design – see pages 4-6 of the *Using E-Bike Purchase Incentive Programs to Expand the Market – North American Trends and Recommended Practices* report

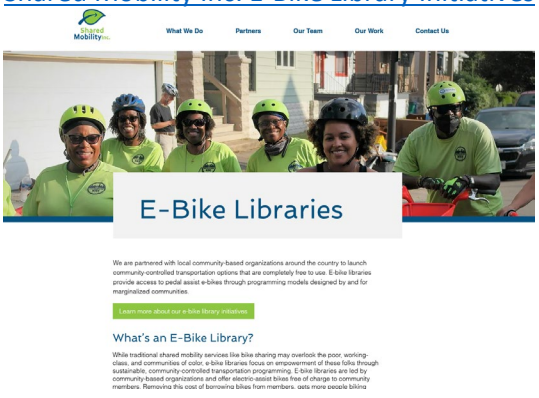
ARTICLES & WEBSITES OF INTEREST

Denver Electric Bike Incentive and Libraries program

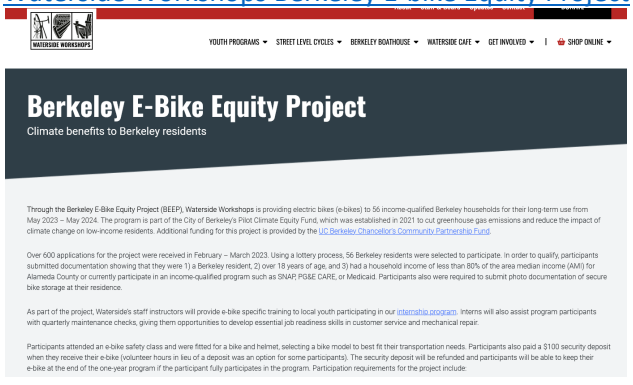


Western Washington University Viking E-Bike Data and findings from the two-year pilot project

Shared Mobility Inc. E-Bike Library Initiatives



Waterside Workshops Berkeley E-bike Equity Project

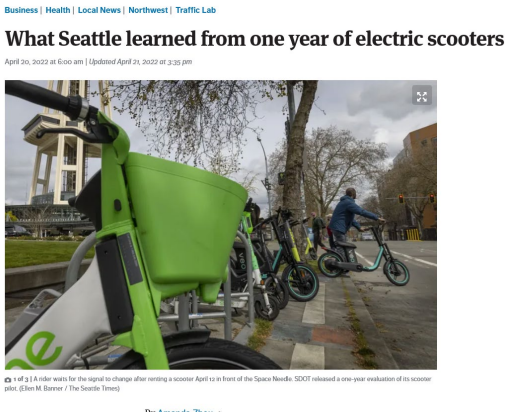


[City of Oakland Electric Bike Lending Pilot Program](#) – [Community Engagement Report](#)

[Local Motion E-bike Lending Libraries](#)

Better Bike Share Partnership [Community Ambassadors Make a Difference](#)

[Shared scooter services in Seattle, WA - Seattle Times](#)



[Madison BCycle Community Pass Program](#)

[People for Bikes, electric-bikes: Electric Bicycles Meet Equity in Upstate New York](#)

NOTE: All resource links are active at the time of publishing (June 2023). If they are not active at a later date, please contact staff at the JTC for electronic file copies of these resources.