

EXPANDING EQUITABLE ACCESS TO ELECTRIC VEHICLE MOBILITY

EXAMPLES OF INNOVATIVE POLICIES AND PROGRAMS

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INTRODUCTION

This document describes examples of how state governments and their partners across the United States are working on improving equitable access to light-duty electric vehicle (EV) mobility in low- and moderate-income (LMI) communities. The examples were compiled by the Northeast States for Coordinated Air Use Management (NESCAUM) to provide ideas for consideration as states continue to integrate equity-centered approaches into their EV initiatives.

NESCAUM learned about several of the examples detailed below from [Expanding Zero-Emission Mobility Equity and Access](#), a report prepared by the International Zero-Emission Vehicle Alliance to summarize insights from a series of listening sessions with a diverse set of equity experts and practitioners. NESCAUM identified additional examples during a discussion with the Multi-State ZEV Task Force and the Clean Vehicles Workgroup of the Transportation and Climate Initiative and through research. The selected examples illustrate a range of approaches that states and utilities are using to: 1) lower financial barriers to EV ownership; 2) expand access to charging infrastructure; and 3) conduct outreach and education to reach LMI communities and increase EV adoption. Examples are presented in alphabetical order, and each includes a brief write-up with links to more information.

In addition to the examples covered in this document, the importance of early engagement cannot be overstated as agency priorities are considered and policy and program designs are developed (sometimes referred to as “operationalizing equity”). Early engagement is necessary for assessing the mobility needs and gaps in LMI communities, identifying strategic approaches to expanding equitable mobility, and finding local leaders who can help any new effort succeed.

Further, there are many examples of local programs and initiatives to improve equitable access to EVs that are outside the scope of this document. An appendix highlights a few examples of local car sharing programs aimed at improving access to EV mobility for populations with limited access to personal vehicles, including low-income households, students, and seniors.

LOWERING FINANCIAL BARRIERS TO EV OWNERSHIP

Upfront vehicle purchase costs remain a significant barrier to EV ownership in LMI households. Incentive programs, especially those with equity-focused components, can help overcome financial barriers and expand EV access for lower-income consumers. The examples below illustrate incentive programs that aim to achieve these outcomes through specific design elements, such as used EV rebates, vehicle scrappage and replacement, and incentive restrictions based on vehicle price or consumer income. Some programs apply only to battery electric vehicles (BEVs) while others also include plug-in hybrid electric vehicles (PHEVs) and fuel cell electric vehicles (FCEVs).

CALIFORNIA CLEAN VEHICLE REBATE PROJECT

The Clean Vehicle Rebate Project (CVRP) was expanded in April 2016 to include an additional \$2,500 rebate (on top of other CVRP rebates available to all qualifying state residents) for those with household incomes less than or equal to 300 percent of the federal poverty level. In total, the CVRP has funded over \$77 million in incentives toward the purchase or lease of more than 19,000 EVs by LMI consumers. The monthly LMI CVRP rebate redemption rate has grown more than 258 percent, from 158 rebates in April 2016 to an average of 546 rebates per month in 2019. For more information, please visit the CVRP [website](#).

CALIFORNIA CLEAN CARS 4 ALL

The Clean Cars 4 All program was created by the California Air Resources Board (CARB) to help lower-income state residents replace older gasoline-powered cars with cleaner electric models. Program participants become eligible for a rebate of up to \$9,500 toward the purchase or lease of a new or used BEV, FCEV, or PHEV after turning in their older vehicles for scrappage. As an alternative, eligible participants can receive \$7,500 in incentives toward usage of public transit or private and shared mobility services. The Clean Cars 4 All program is part of the California Climate Investments Initiative and is managed by participating air districts, which set their own income- and vehicle-eligibility requirements. For more information, please visit the Clean Cars 4 All [website](#).

MAINE ELECTRIC VEHICLE INSTANT REBATES

Efficiency Maine, a quasi-state agency trust administering energy conservation programs, created a new EV incentive program with specific carve-outs for LMI state residents. Individuals can receive rebates of \$1,000 or \$2,000 toward their purchase or lease of a PHEV or BEV, respectively, which increases for eligible LMI residents to \$1,500 or \$3,000. Anyone who participates in the federal Low-Income Home Energy Assistance Program automatically pre-qualifies for the increased LMI rebate. For more information, please visit Efficiency Maine's EV Instant Rebates [website](#).

OREGON CHARGE AHEAD REBATE PROGRAM

The Oregon Charge Ahead Rebate Program offers a rebate to LMI state residents who purchase or lease an EV. The Oregon Department of Environmental Quality (ODEQ) partners with the Center for Sustainable Energy to administer the program. Qualified residents with annual household incomes less than 120 percent of the median income in the closest metropolitan area can receive \$2,500 toward their new or used EV in addition to the state's Clean Vehicle Rebate offered to all Oregonians and federal tax credits. Residents can use an online calculator to get pre-verified for the rebate, simplifying the administrative process. For more information, please visit the Charge Ahead Rebate [website](#).

VERMONT PLUG-IN ELECTRIC VEHICLE (PEV) INCENTIVES PROGRAM

The Vermont Department of Transportation partnered with Vermont electric utilities and the Drive Electric Vermont coalition to launch a new EV rebate program with increased incentives for lower-income state residents. Eligible Vermonters can receive \$1,500 or \$2,500 toward the purchase or lease

of a PHEV or BEV, respectively. Residents who qualify for the Vermont Weatherization Assistance Program are eligible for larger incentives (\$4,000 for a PHEV and \$5,000 for a BEV.) Recipients can choose to receive incentives at the point-of-sale in the form a reduced purchase or lease price at the dealership, or as direct cash reimbursement from the electric utility that serves their household. These state incentives can be combined with additional Vermont electric utility incentives and federal tax credits for greater savings. For more information, please visit the Statewide PEV Incentives [website](#).

VERMONT GREEN MOUNTAIN POWER REBATE PROGRAM

In 2019, Green Mountain Power (GMP), an electric utility in Vermont, launched an EV rebate program with increased assistance for LMI customers. All utility customers are eligible for a \$1,500 rebate for a BEV, \$1,000 for a PHEV, and \$750 for any used EV. In addition, LMI customers are eligible for an additional \$1,000 rebate for a new or used EV. In just six months, 250 rebates were issued, and more than 50 went to LMI residents. These rebates can be combined with the Vermont PEV Incentives Program and federal incentives for even greater savings. Additionally, the program offers participants a free in-home Level 2 EV charger (\$600 value). In exchange, participants allow GMP to manage their home charging rate during peak electricity demand events if needed. For more information, please visit GMP's [website](#).

ADDITIONAL USED EV INCENTIVES PROGRAMS

In addition to the incentive programs described above, several other states and utilities offer rebates for used EVs. For example, in Washington, new and used EVs have been exempt from state sales tax since 2009. The alternative fuels tax exemption expired in 2019 but was reinstated in 2020 and extended through 2025. New Hampshire's Cooperative Electric Vehicle Program offers \$1,000 or \$600 toward a new or used BEV or PHEV, respectively. In addition, Connecticut is planning to make rebates for used EVs available just to LMI residents. For more information, please visit the [New Hampshire](#), [Washington](#), and [Connecticut](#) websites.

EXPANDING ACCESS TO CHARGING INFRASTRUCTURE

Lack of access to charging infrastructure can also be a limiting factor to EV uptake in LMI communities. In addition, lower-income individuals may face barriers to accessing existing charging stations because they do not have smartphones or cannot afford charging network subscriptions. The examples below highlight programs designed to increase access to residential and public charging infrastructure in underserved communities and state policies requiring universal payment options.

CALIFORNIA PUBLIC EV CHARGING STATION PAYMENT STANDARDS

In 2019, CARB finalized regulations governing payment standards for all publicly available charging stations installed in California. The regulations require that all such charging stations include a credit card reader device, a mobile payment device, and a toll-free number for accepting payment. The regulations also prohibit an EV charging provider from requiring a network subscription to initiate a charging session. These statewide EV charging station payment standards ensure more equitable access

to low-income EV drivers who may not be able to pay by mobile device or contactless chip card and may not be able to afford a charging network subscription. For more information, please view the [CARB regulations](#).

CALIFORNIA PACIFIC GAS & ELECTRIC'S EMPOWER EV CHARGER AND EDUCATION PROGRAM

In 2019, Pacific Gas & Electric (PG&E) received approval from the California Public Utilities Commission to launch its *Electric Vehicle Charger Incentive and Education Program*, which aims to provide financial incentives for up to 2,000 LMI households to install residential Level 2 chargers. Individual households can receive up to \$500 toward the purchase of a Level 2 charger and an additional incentive of up to \$2,000 if electrical infrastructure upgrades are required at the residence. Within its service territory, PG&E is partnering with local community-based organizations to focus its education and outreach efforts on meeting the specific needs of local communities, including non-English speaking households. For more information, please see the Public Utilities Commission [decision](#).

MARYLAND PUBLIC EVSE IN UNDERSERVED COMMUNITIES

The Maryland Public Service Commission (PSC) approved an EV charging infrastructure pilot program proposed by four of the state's largest electric utilities. The pilot program includes electric vehicle supply equipment (EVSE) rebate incentives for multi-unit dwellings (MUDs) with the aim of extending equitable access to EV charging to underserved MUD residents. The pilot program will also spur utility investment in EVSE for ride-hailing services, which often operate in LMI communities. For more information, please view the PSC [decision](#).

MASSACHUSETTS ELECTRIC VEHICLE INCENTIVE PROGRAM (MassEVIP)

Using Volkswagen Settlement funds, the Massachusetts Department of Environmental Protection (DEP) established MassEVIP to provide financial incentives for expanding charging infrastructure across multiple use cases in the state. MassEVIP includes a Public Access Charging component to award funding for EVSE deployment by property owners with publicly accessible parking facilities, and project selection criteria include whether the project is located in an environmental justice community and whether the project promotes equitable geographic distribution of EVSE across the state. In fall 2019, \$710,000 of the \$2 million DEP awarded for the MassEVIP Public Access Charging component went toward 26 EVSE projects located in environmental justice communities. For more information, please visit the MassEVIP Public Access Charging Incentives [website](#).

NEW JERSEY IT PAY\$ TO PLUG IN eMOBILITY COMPONENT

The *It Pay\$ to Plug In* program's eMobility component provides grant funding to help offset the cost of purchasing Level 1, Level 2, and DC fast charging stations to support electrified shared mobility, car sharing, and ride-hailing services in LMI communities. The New Jersey Department of Environmental Protection seeks to fund projects that will benefit communities disproportionately impacted by air pollution, and that will help meet identified community transportation and mobility needs. The eMobility component supplements the installation of EVSE at workplaces, public locations, and MUDs by

electrifying mobility services that expand access and benefits to EVs. For more information, please visit the *It Pay\$ to Plug In* [website](#).

NEW YORK PUBLIC SERVICE COMMISSION MAKE-READY INFRASTRUCTURE PROGRAM

In July 2020, the New York PSC released an order that allocates a total of \$701 million in electric ratepayer funding to develop a “make-ready” EVSE infrastructure incentive program, with \$120 million directly benefiting disadvantaged communities. The order requires that a minimum of 20 percent of each electric utility’s budget for charging stations must be located within 1-2 miles of a disadvantaged community and aim to increase electric VMT for ride-hailing services in disadvantaged communities. Moreover, the order covers 100 percent of eligible make-ready utility costs for publicly accessible Level 2 and DC fast chargers installed in disadvantaged communities, which provides a strong incentive for driving investments in these communities. For more information, please view the New York PSC [order](#).

CONDUCTING OUTREACH AND EDUCATION TO REACH LMI COMMUNITIES

A general lack of awareness about the benefits of EVs and available vehicle purchase incentives also create barriers to adoption among lower-income households, rural populations, and disadvantaged communities. Education and outreach strategies targeted to meeting the needs of underserved communities signal a strong commitment to ensuring these communities are prioritized in efforts to expand access to electric mobility. The examples below illustrate how states and their partners are tailoring outreach programs and information for reaching these communities.

CALIFORNIA SOUTHERN CALIFORNIA EDISON’S CHARGE READY AND MARKET EDUCATION PROGRAM

In August 2020, the California Public Utilities Commission issued a decision approving Phase 2 of Southern California Edison’s (SCE) Charge Ready and Market Education Program. During Phase 2, SCE will invest \$14.5 million in three separate marketing, education, and outreach programs, all of which include strategies for engaging customers living in disadvantaged communities within SCE’s service territory. The programs will feature outreach to local community- and faith-based organizations to collaboratively develop mass media marketing materials tailored for disadvantaged communities. In addition, the programs will include the development of web- and mobile-based self-service tools and resources for helping consumers to better understand the total cost of ownership savings for driving electric. For more information, please view the Public Utilities Commission [decision](#).

NEW HAMPSHIRE CHARGE FORWARD EV RELAY RACE

In 2018, the first annual “Charge Forward” EV relay race took place in the Granite State. Organized by Drive Electric NH in collaboration with the state’s Department of Environmental Services and its Clean Cities Coalition, the event showcased six New Hampshire celebrities and government leaders driving eight EVs along a winding route through many of the state’s cities and towns. With press events along the route and a high-profile final ceremony, the event demonstrated an innovative approach to raising

consumer awareness of the benefits of EVs and charging infrastructure in rural areas. For more information, please visit the Drive Electric NH [website](#).

OREGON CHARGE AHEAD REBATE OUTREACH

The Oregon Department of Environmental Quality is partnering with Forth Mobility to raise awareness of its Charge Ahead rebates for LMI Oregonians (see above). The agency sought Forth’s assistance as a non-profit partner that has made improving equitable access to EVs a core part of its overall mission. Forth’s outreach plan calls for training community groups that already work in and have relationships in LMI communities to provide information and build awareness at community events and gatherings. Communication materials include a fact sheet available in nine different languages that addresses topics such as fuel and maintenance cost savings from driving electric, environmental benefits, and charging. For more information about Forth Mobility and their outreach strategies, please visit their [website](#).

VELOZ’S *ELECTRIC FOR ALL* EV CAMPAIGN

Along with private companies, the California Energy Commission and CARB are members of VELOZ, a California-based non-profit organization that aims to foster rapid acceleration of EV awareness, understanding, and consideration with the goal of increasing consumer demand. Through its *Electric For All* campaign and website, VELOZ is informing consumers, including LMI consumers, about the financial assistance available for purchasing and operating EVs. A zip-code based “incentives and perks” search tool provides easy access to information about standard state and utility rebates as well as additional sources of assistance with income-based eligibility (e.g., rebates from Clean Cars 4 All, and special grants and low-interest loans available through the Clean Vehicle Assistance Program). Information on charging station incentives, beneficial time-of-use rates for EV charging, and reduced vehicle registration fees and high occupancy lane exemptions is also provided. For more information, please visit the *Electric For All* [website](#).

CONCLUSION

The diverse examples in this document are not exhaustive of all that is being done by states and their partners to improve equitable access to light-duty EVs. They are just a sample, intended to give states ideas and inspiration as they further develop their own equity initiatives. As mentioned above, a crucial early step for all equity initiatives is to engage directly with LMI communities about their barriers to equitable access, and their ideas for how best to make progress toward greater equity.

APPENDIX

EXPANDING ELECTRIC VEHICLE MOBILITY THROUGH CAR SHARING

In general, car sharing programs are localized mobility solutions for meeting transportation needs of individuals with limited access to personal vehicles. They are usually administered by municipal or county governments and other community organization partners. Car sharing vendors often bundle costs for vehicle registration, insurance, fuel, maintenance, and parking into one simple, affordable user rate. Programs that deploy EVs broaden access to the benefits of driving electric among LMI households. The EV car sharing programs described below all include targeted equity components.

CALIFORNIA GREEN RAITEROS EV CAR SHARING PROGRAM

Green Raiteros is an on-demand EV car sharing program launched in the rural town of Huron, California, in late 2018. Green Raiteros makes a small fleet of EVs available to underserved, agricultural communities for travel to and from essential services in the San Joaquin Valley. Users can reserve a ride by phone or in-person at the Green Raiteros office. Huron partnered with the Latino Environmental Advancement & Policy Institute, the Shared-Use Mobility Center, and EVgo to acquire the vehicles and build Level 2 charging hubs needed to support them. For more information, please contact the Green Raiteros office at 559-900-2656, extension 504.

CALIFORNIA OUR COMMUNITY CARSHARE SACRAMENTO

Our Community CarShare Sacramento is a free car sharing program that deploys EVs in various low-income communities throughout Sacramento. The program enables users 21 years and older with a valid driver's license to reserve an EV for up to 3 hours per day or a total of 9 hours per week and includes roadside assistance. Each EV has its own designated parking space, with a charging station that it must be returned to upon trip completion. Our Community CarShare is funded by California Climate Investments and administered by the Sacramento Air Quality Management District. Zipcar maintains the vehicle fleet and reservation systems at vehicle locations. For more information, please visit the Our Community CarShare [website](#).

OREGON CLEAN RURAL SHARED ELECTRIC MOBILITY PILOT PROJECT

Based in Hood River, Oregon, the Clean Rural Shared Electric Mobility Pilot Project (CRuSE) is an all-electric car sharing program planned for launch in 2020 that aims to improve clean mobility for low-income and rural communities. The project will deploy five Honda Clarity EVs and five charging stations in and near the city center, neighborhoods with lower-income residents, and tourist destinations. CRuSE will allow different user groups, including low-income residents, city employees, and tourists, to gain access to the Honda Clarity EVs at different price points. Users can reserve a vehicle using a mobile phone app that provides Spanish language translation and accepts alternative payment options to expand access for unbanked individuals. Forth Mobility secured a federal Department of Energy Advanced Vehicle Technologies Research grant to help implement the project. For more information, please view this recent Hood River News [article](#) highlighting the CRuSE pilot project.

ADDITIONAL EV CAR SHARING PROGRAMS WITH SPECIFIC EQUITY COMPONENTS

- [BlueLA](#) launched its Los Angeles-based all-electric car sharing program in 2017. BlueLA's network includes over 100 EVs with 200 on-street EV charging stations. The program provides steeply discounted annual memberships for low-income qualified residents.
- [eGo CarShare](#) is a nonprofit car sharing program in Boulder and Denver, Colorado that recently began introducing EVs into its vehicle fleet. The first EV was placed with an on-street EV charging station in a mixed-income community. Roughly half of eGo's fleet operates in LMI areas, and about 38 percent of users report combined household incomes under \$35,000.
- [Envoy](#) is an all-electric car sharing program that deploys its vehicles and charging stations at locations designed to serve specific user groups such as affordable housing residents. In Sacramento, California, Envoy has partnered with the City, Electrify America, and commercial property owners to deploy EVs with dedicated parking spaces and charging stations at over 45 MUDs. Additionally, Lyft and Uber drivers can reserve Envoy EVs to provide ride-hailing services.
- [HourCar](#) is a Minnesota-based car sharing program transitioning to an all-EV fleet. HourCar enables users to pay for short-term vehicle rentals with either a credit card or a transit fare card, which helps expand payment options and service access for unbanked individuals.