



Clean Mobility Program (PON 5739): Mobility Solutions Provider Showcase Session 1

August 14, 2025

Agenda for 2-Wheel Morning Session

- Overview of Showcase Goals
- Session A: Bike and Scooter Share Presentations – Lyft, Drop Mobility, CLIP.Bike
- Session A: Q&A
- Session B: Micromobility Charging Hubs – PopWheels, Swobbee, re:Charge-E
- Session B: Q&A
- Session C: Cross-Cutting Approaches – Shared Mobility Inc., POPULUS, Forth Mobility, Joyride
- Section C: Q&A
- Final Questions and Wrap Up

Housekeeping

Everyone is muted upon entry

Questions and Answers

Written Questions Answered First:

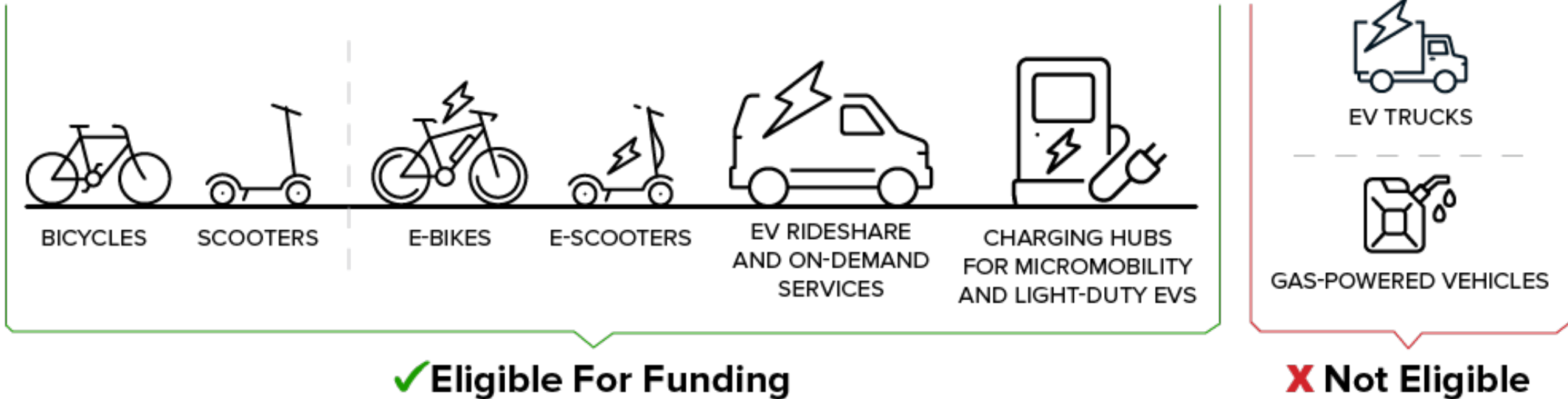
- Wendy will start by reading the written questions that come in through the chat.
- For chat questions, precede your question with which presenter (or group of presenters) the question is directed towards.

Verbal Questions Answered Second:

- Wendy will call on those with raised hands.
- Individual asking the question will be unmuted by NYSERDA Events team **for 20 seconds. Be concise!**
- All questions (written and verbal) should be directed at a specific presenter/company or clearly aimed at all presenters.

Eligible Project Types

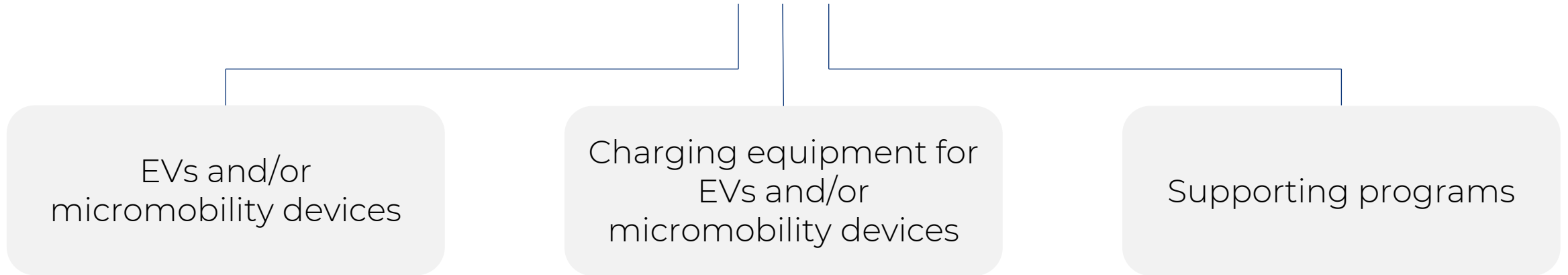
- Hardware (e.g., vehicles and charging infrastructure)
- Software (e.g., back-end and customer-facing)
- Operations (e.g., staffing and systems maintenance)





Mobility Solutions Providers:

Entities that **manufacture, supply, develop, install, operate** and/or **maintain** a transportation or mobility service, including:



Applicants may include mobility solution providers on their proposing team for Demonstration proposals. If an applicant received planning funds from Round 1 of the Program, they may not include any of the firms that developed the plan as their mobility solution provider.

Mobility Provider Directory and Showcase - Background

- These represent a non-exhaustive list of entities that may be able to provide relevant products and/or services for various potential mobility solutions as part of the Clean Mobility Program.
- Most have operated in or currently operate in New York State or have been identified through known similar directories that have been compiled by other states.
- This is for informational purposes only and does **NOT** constitute an endorsement or recommendation by NYSERDA.

Session A: Bike and Scooter Share

- Lyft
- Drop Mobility
- CLIP.Bike

Lyft / Citi Bike

Miller Nuttle (mnuttle@lyft.com)

August 14, 2025

Lyft / Citi Bike Overview

- **Overview:** Citi Bike launched in 2013 and is the largest station-based bikeshare system outside of China. The program today is operated by Lyft who has helped more than double the footprint of the system over the past 6 years.
- **Program Service Area:** Around 77 sq. mi. with 2,150 stations and nearly 40K bikes deployed
- **Ridership:** Record 47M rides in the past 12 months and a core part of NYC's transportation network; ebikes account for 68% of Citi Bike rides despite making up 45% of the fleet. Ebike ridership has grown 36% in the past 12 months.
- **Charging Stations:** Lyft has started to deploy stations that can charge bikes directly in the docks. These stations will help decrease operational VMT and increase ebike availability. Today, 14 charging stations have been deployed with an additional 60 planned by the end of the year.
- **Sustainability & Mode-Shift:** 85% of Citi Bike riders have used the system to get to/from transit and 70% of riders do not own a car.
- **NYC-Office:** 441 9th Ave, New York, NY 10001
- **Point of Contact:** Miller Nuttle, Director of Public Policy, Lyft Urban Solutions





Lyft / Citi Bike E-Mobility Services Offered

CMP-eligible service: Bike Share (e.g., Regional Expansion),
Micromobility Charging Hubs (e.g., Station Electrification)

Regional Expansion

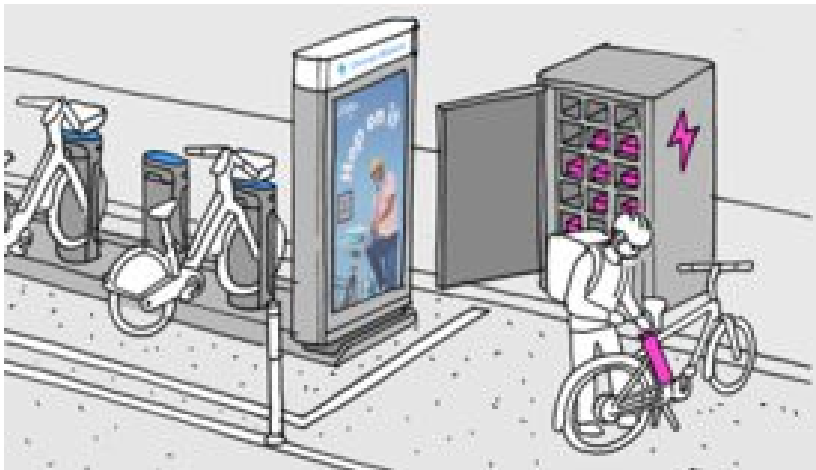
Cities in the greater New York metro area can leverage NYSERDA's Clean Mobility Program to expand Citi Bike's footprint, achieving:

- **Reduced Emissions & Congestion:** Nearly 47 million rides in the past year demonstrate Citi Bike's power to cut car dependence, directly easing congestion and lowering CO2 emissions.
- **Enhanced First/Last-Mile Connectivity:** Expanding Citi Bike improves transit access for residents, with 85% of current riders using it to connect with public transit.
- **Fostered Sustainable Commuter Patterns:** Citi Bike promotes healthier travel; 55% of NYC commute-hour Lyft rides are on Citi Bike, and 70% of our riders don't own a personal vehicle, reducing overall car trips.

Station Electrification

Electrifying high-ridership Citi Bike stations and enabling e-bike charging in low-income areas offers several key benefits:

- **Boosts E-bike Availability:** Improves e-bike access for low-income New Yorkers, who take over 75% of their trips on e-bikes.
- **Reduces Fire Risk:** Allows for safe, fire-rated personal e-bike charging stations to "piggyback" off Citi Bike's certified e-bike power, reducing battery fire risks.
- **Replaces Car Trips & Cuts Emissions:** E-bikes are a powerful car trip alternative, with 25% of riders potentially buying a car without micromobility. Electrification would also eliminate up to 300,000 miles of van trips and 132 tons of CO2 from battery swaps.

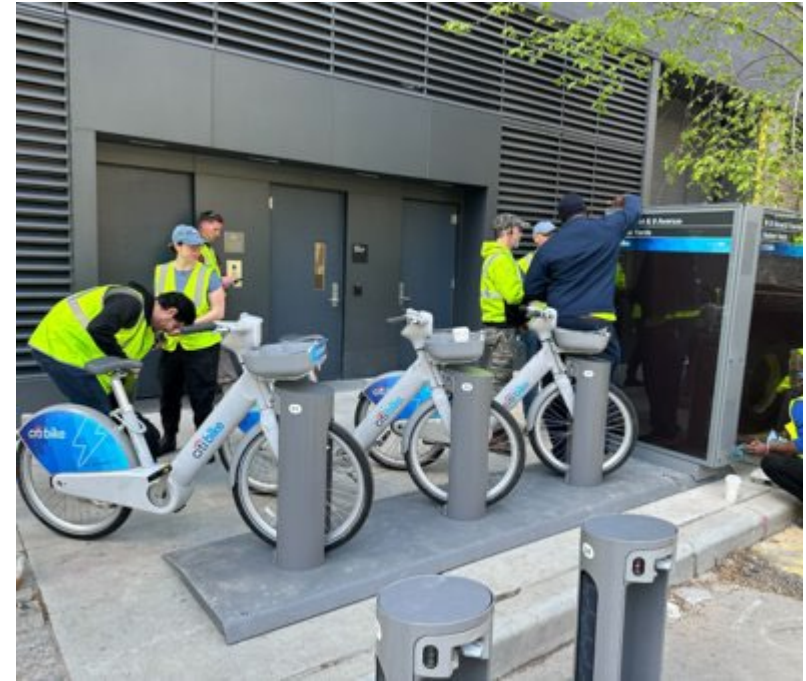


Lyft / Citi Bike Relevant Project Examples

Station Electrification Case Studies

Despite the high costs of trenching in the United States, Chicago, Pittsburgh and New York have incorporated charging stations to complement ebike ridership growth

- **Chicago:** Lyft has worked with CDOT and ComEd to deploy 26 electrified stations in the Divvy program.
- **Pittsburgh:** The POGO system has identified innovative ways to reduce the cost of construction by running conduit over the sidewalk in a safe manner that costs only \$1,500 per connection.
- **New York City:** Lyft has deployed two pilot stations, continued installing 12 additional stations, and have an additional 60+ stations scheduled for 2025. Our models suggest that electrifying the top ridership stations can lead to up to 90% battery swap reductions in the system. In NYC alone, electrifying a subset of high ridership stations will reduce Vehicle Miles Traveled by our battery swapping fleet by over 300,000 miles annually, reducing our operations' CO2 output by 132 tons. Electrifying additional stations through the NYSERDA Clean Mobility Program can help Citi Bike get closer to achieving our electrification goals.



Drop Mobility

Overview

- Operating across 60+ municipalities and campuses across North America
- NY markets include the Greater Capital Region (Albany), Rivertowns along the Hudson River, and Ithaca.
- Micromobility service provider offering expertise across the entire value chain – from hardware to software, customer service, marketing, outreach, operations, and beyond.

drop

Coverage



Amber Watson (amber@dropmobility.com)

August 14, 2025

Drop E-Mobility Services Offered

Services offered

- Bike Share & Scooter Share/Bike Libraries
- Micromobility Charging Hubs
- Programs to Support Bike and Scooter Ownership

Drop works in a partnership approach to launch and grow locally designed and branded micromobility programs



Drop Mobility Relevant Project Examples

Project MOVER

- E-bike share, lending library, pathway to ownership
- Pilot funded by NYSERDA Prizes, and in partnership with Shared Mobility Inc (SMI), Nelson Nygaard, CityFi, and InnoEnergy
- Working to secure sponsorship for sustaining seasons 3+ including municipal support

CDPHP CYCLE!

- Sponsored by CDPHP and run by CDTA
- Free ridership for members of CDPHP, 50% off for students



Drop Mobility Relevant Project Examples

Ithaca Bikeshare

- Expansion supported by NYSERDA funding
- Equity program through Easy Access/ Golthaca
- Sustained by ridership revenue, local private and public support and Drop subsidies



CLIP

Clip

Overview

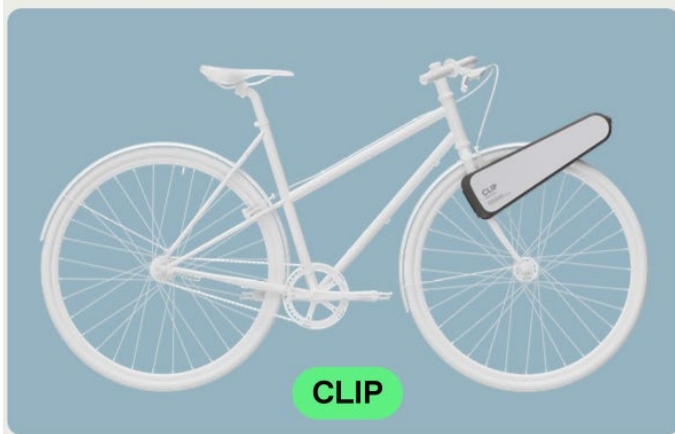
- Founded in 2018
- HQ in Brooklyn Navy Yard at Newlab
- CLIP provides easy, zero tools e-bike upgrades
- Its latest innovation, BOLT is 20x cheaper than a standard e-bike

Sorah Park (sorah@clip.bike)

August 14, 2025

CLIP's E-Mobility Services Offered

- E-Bike Library (bikes, insurance, training, service)
- Programs to support CLIP or BOLT ownership



CLIP

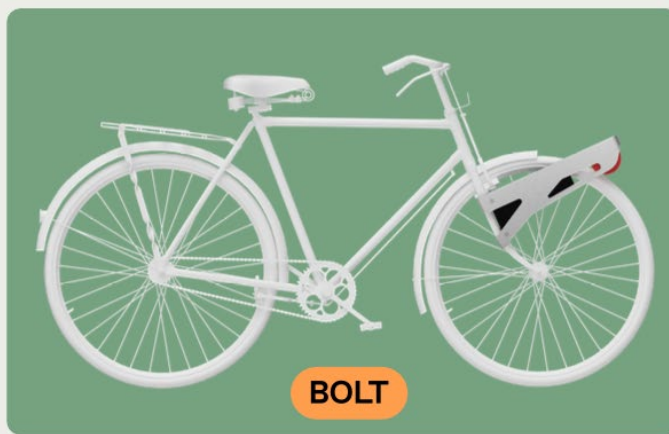
\$499

Hybrid/Commuter & Road Bikes

Personal bikes & Shared bikes on Campuses
(Academic, Hospitality & Corporate)

North America, Europe

D2C, Retail & B2B



BOLT

\$180

Hybrid/Commuter & Bike-share Bikes

Personal bikes and Bike-share networks
(eg. Velib, Reddy bikes etc.)

India (APAC), LATAM, Africa, US & EU

D2C, Retail & B2B



CLIP's Social and Economic Impact

- CLIP allows low-to-moderate income riders to access education, work, and social opportunities
- Over 2,500 sales, 5 star feedback, and 50,000+ miles
 - Customer demographic: (30+) urban commuters and active elders

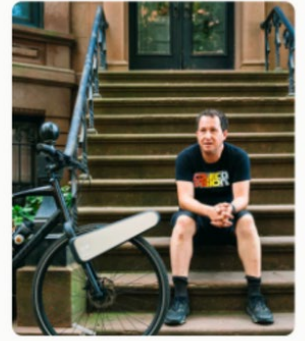
CLIP Library Pilot at Newlab (Summer 2024)

- 712 miles traveled and 286 kg CO2 emissions saved.
- 50 participants
- 6 Miles: Average Users' commute

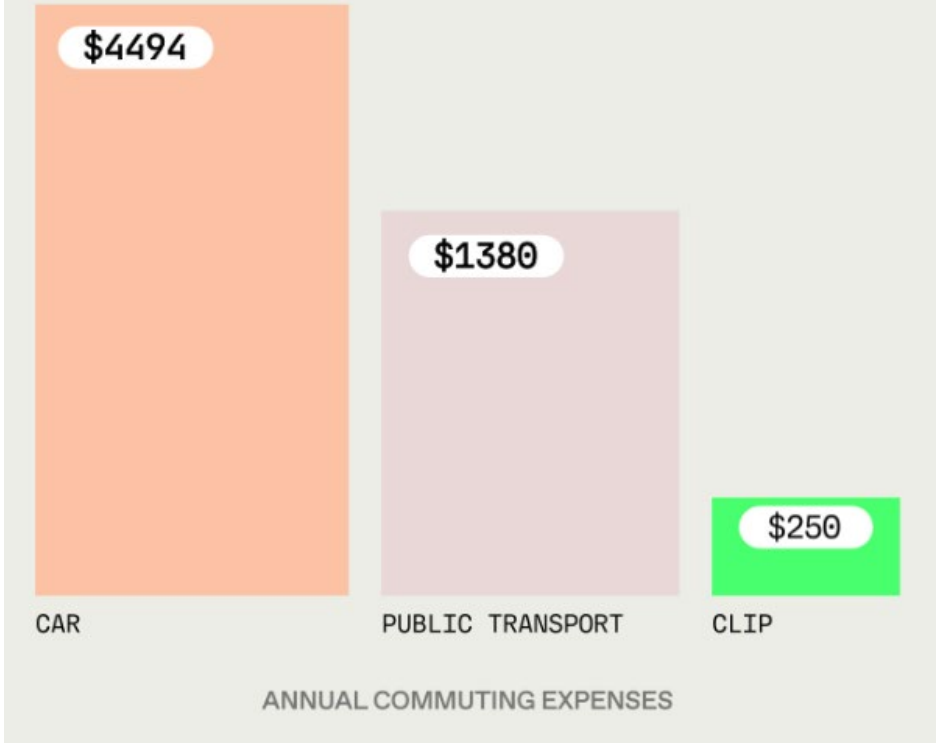


"Wanted the ease of an ebike to get around that'd also satisfy my compact living space in the city"

JONAH BC | BROOKLYN, NY



IN THE US



CLIP has the potential to eliminate up to 5% of CO2 emissions globally while limiting EVs' manufacturing and deployment footprint.

165X

Gasoline Car

251.0g Co2 /passenger km

18X

Bus

28.0g Co2 /passenger km

30X

Tesla Model 3

46.7g Co2 /passenger km

23X

Subway Metro

36.4g Co2 /passenger km

X

CLIP & Bike

1.5g Co2 /passenger km



Session B: Micromobility Charging Hubs

- **PopWheels**
- **Swobbee**
- **Re:Charge-e**

PopWheels



Overview

- Founded in 2022; 15-20 employees
- **Office Location:** 19 Morris Avenue, Brooklyn, NY 11205
- Builds **fire-safe, affordable, and accessible** charging for electric mobility that **powers deliveries and protects communities**
- Patented swap cabinets are built to stop lithium-ion fires before they start and are validated at nationally recognized testing labs.
- Powers light electric vehicles through a safe and convenient network for UL-certified battery exchanges.

By the end of 2025, PopWheels will have over 50 cabinets installed city-wide



Ben Rosenn (benrosenn@popwheels.energy)

August 14, 2025

PopWheels E-Mobility Services

Micromobility Battery Swapping Stations

- **Under-a-minute Battery Swapping:** Users can quickly exchange depleted batteries for certified, fully charged ones at designated stations. Simply remove the empty battery and insert into PopWheels' cabinet for a new one in seconds.

Micromobility Charging Hubs

- **Made for Residential and Personal Use:** PopWheels offers a safe way for buildings to create safe, easy outdoor charging for their tenants and visitors
- **Universally Compatible Battery Types:** Works with all battery types and includes fire suppression technology for added safety.



PopWheels Project Example

49 Dominick St, Hudson Square

- *First official battery swapping "hub" in the U.S.*
- **Launch Event:** Invited elected officials, press, and community members to showcase safe micromobility infrastructure
- **Live Onboarding:** Recruited riders locally, helping delivery workers save time and money while reducing fire risk at home
- Cabinets include fire suppression technology, keep batteries charged, and monitor battery health
- *Fast:* 45-second Swap Time
- *Safe:* Security Camera Protected
- *Clean:* Kept Clean & Graffiti Free
- *Easy:* 24/7 Multilingual Customer Service & Support



PopWheels Partnerships

Our Swap and Charge Solutions:

- Locations across NYC and Washington D.C.
- 10,000+ Swaps and Counting
- Demonstrated 88% Reduction of at-home battery charging
- Championed by delivery workers, app companies, tenants associations, co-ops, and landlords
- Comprehensive Operational Management: PopWheels oversees all aspects of construction, installation, and maintenance, making the entire process straightforward and worry-free for our community partners.



Swobbee

Overview

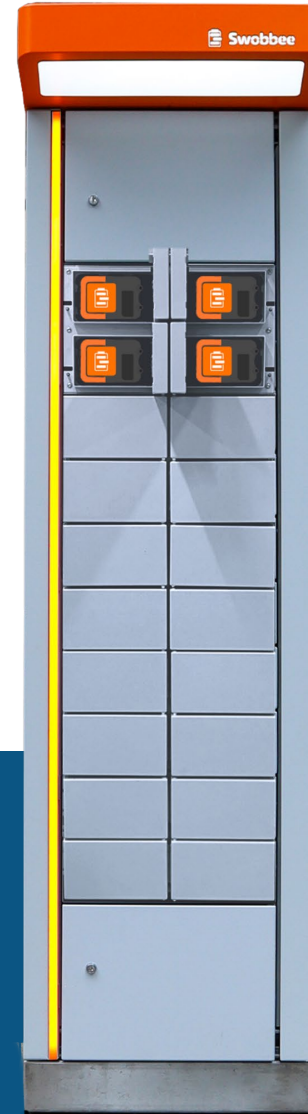
Swobbee builds and operates safe, technology-enabled battery charging and swapping stations for electric micromobility.

About us:

- Employees: 25
- Headquarters: Brooklyn, NY
- Website: www.swobbee.com

Holland Cathey (h.cathey@swobbee.com)

August 14, 2025



Swobbee builds modular battery charging and swapping cabinets for light electric vehicles.

Software-enabled hardware ensures that batteries are monitored 24/7, making it the safest and smartest battery charging technology on the market.

Swobbee E-Mobility Services Offered

Micromobility Charging Hubs

- Swobbee provides hardware that safely charges swappable batteries for micromobility. Users can simply swap a depleted battery for a charged one in under 30 seconds.
- Modular design means that multiple battery types can be charged in the same cabinet, often simultaneously to meet the needs of multiple vehicle types and use cases.

Programs to support Bike and Scooter Ownership

- Batteries for ebikes and scooters are expensive, making ownership—especially of safe, UL-certified devices—difficult. Additionally, finding a safe place to store and charge such devices is challenging, particularly for those living in multi-unit buildings.
- Swobbee’s subscription service enables users to access safe, certified devices that are compatible with their existing e-bikes. The subscription includes unlimited swaps in the Swobbee network – so users never need to own a battery or worry about finding a place to charge. This network is currently active in Jersey City and coming soon to Manhattan and Brooklyn.

Bike Share & Scooter Share/ Bike Libraries

- Swobbee’s hardware can be used to enable bike and scooter sharing or libraries—it is not only the safest, but also the most efficient way to charge electric devices.
- Distributed charging ensures that operations are easy, efficient, and sustainable—as operators no longer need to rely on far away warehouses to charge batteries. Instead, the charging can happen where its needed.



Swobbee Relevant Project Examples

“Charge Safe, Ride Safe” Pilot

- Swobbee provided batteries and charging swapping services to 40 delivery workers in NYC for 11 months in 2024.
- The network ensured that users have access to safe, charged batteries anytime, anywhere—and provides a much-needed option to at-home charging. The pilot was considered a huge success by the city, and paved the way for future installations in NYC.

**Newlab**

Safe swapping in Jersey City

- Swobbee’s stations in Jersey City for delivery workers have seen more than 6,000 swaps in 5 months and very high customer satisfaction.
- With Swobbee’s subscription service of just \$2/day, users have access to a best-in-class battery and unlimited swaps, ensuring that their workday is not limited by their battery capacity and providing a safe alternative to at-home charging. An expansion to the network in Manhattan and Brooklyn is coming soon.

**JERSEY CITY**

Swobbee Relevant Project Examples

Swapping network for mopeds

Berlin-based subscription service, allowing users to rent a moped and access a network of stations, allowing them to swap along their route, rather than charge at home.



E-bike lending library in Buffalo

Swobbee powers Project Mover's bike library in Buffalo with safe, efficient, and distributed charging — promoting micromobility access across the Hudson Valley without relying on warehouse charging.



Efficient charging operations for Voi

Swobbee supports VOI, one of Europe's largest sharing operators, with efficient and safe charging infrastructure — streamlining operations with swapping, lowering operational costs, and reducing vehicle miles travelled (VMT).



Re:Charge-e

Overview

Incorporated in March 2019

Size : currently limited to 3 Part Time Employees

Headquartered in Albany, NY

Website : www.recharge-e.com

Point of Contact: Jeff Olson (below); Julien Bouget (jbouget@recharge-e.com)

re:Charge is developing a universal wireless charging solution for ebikes, scooters and other devices that helps cities and shared mobility providers improve service reliability, reduce charging costs, and lessen the environmental impacts of operations.

Jeff Olson (jolson@recharge-e.com)

August 14, 2025

E-Mobility Services Offered

Micromobility Charging Hubs

Re:Charge-e has designed a universal wireless charging solution for ebikes and e-scooters. The solution is comprised of two separate elements:

- Grid-connected (aka plugged) universal wireless charging station with one or more universal wireless charging bollard
- Universal wireless onboard charger installed on the scooter or ebike basket



Relevant Project Examples

The most relevant and significant project example is the demonstration project implemented with Shared Mobility Inc., Capital District Transportation Authority (CDTA), and Drop Mobility.

The demonstration project for a universal wireless charging solution for ebikes used in the CDTA's CDPHP *Cycle!* bike share program in the New York State Capital District took place in Amsterdam, NY from May to November 2024.

re:Charge-e's customer is the CDPHP *Cycle!* bike share operator, Shared Mobility Inc. who is responsible for the ebikes battery charging which is performed by swapping batteries.

The project's official launch was celebrated on July 1st 2024. The event saw local, regional and national politicians show their support for such an initiative. It received significant press coverage. [Albany Times Union Article](#) / [WAMC Article](#) / [Schenectady Daily Gazette Article](#)



Session C: Cross-Cutting Approaches

- **Shared Mobility Inc.**
- **Populus**
- **Forth Mobility**
- **Joyride**

Shared Mobility Inc.



Overview

- Buffalo based non-profit organization that works across NY and nationwide
- We work with local partners to build financially sustainable, innovative transportation programs that serve smaller/mid-size cities and underserved areas
- Two decades of experience leading innovation in community-based shared transportation across upstate New York
- Website: www.sharedmobility.org

Tyler Madell (tyler@sharedmobility.org)

August 14, 2025



Shared Mobility Inc. E-Mobility Services Offered

Planning support for Bike Share & Bike Libraries

- Vendor selection recommendations
- Programmatic design based on community contexts
- Financial sustainability planning
- Site planning and e-mobility policy guidance for municipalities
- Development of marketing campaigns tailored to DACs

Programs to Support E-Bike Ownership

- Design and implementation of e-bike incentive/rebate programs
- Development of incentive application portals & administrative aspects of retailer reimbursements
- E-bike safety education in coordination with local e-bike retailers
- Marketing campaigns focused on target populations

Relevant Project Examples – Westchester E-Bike Incentive Program

- First e-bike incentive program in New York State
- A component of Project MOVER, NYSERDA Clean Transportation Prizes
- Affordable pathway to e-bike ownership for low income residents
- E-bike safety education in coordination with local e-bike retailers



Relevant Project Examples – E-Bike Libraries

- Programs across the country including Western New York, Westchester, and LA
- E-bike libraries are built in partnership with community based organizations
- Creating pragmatic activities to promote e-bikes to new riders
- Some programs have grown into larger programs such as East Side Bike Club in Buffalo





Populus

Populus delivers proven curb and mobility management technology solutions to cities around the world

Founded in 2017 by transportation industry veterans

First platform to ingest data from shared micromobility and carsharing providers

Headquartered in San Francisco, CA

Ali Barsamian (Ali.Barsamian@populus.ai)

August, 14, 2025

Populus E-Mobility Services Offered

Populus delivers a digital platform that aggregates and analyzes data from a City's shared mobility program. This falls into the category of:

Bike Share & Scooter Share

Overcome the challenges of micromobility management with a suite of powerful data analysis, policy and pricing tools

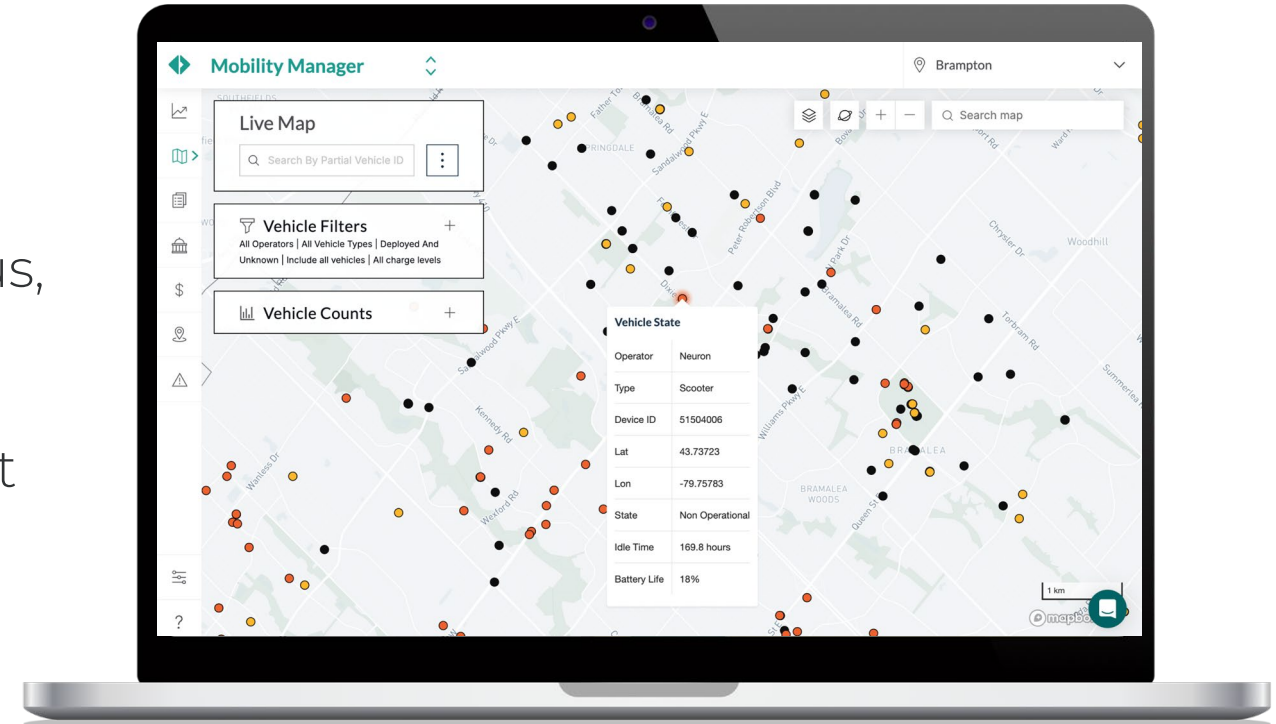
- Monitor real-time vehicle statuses
- Analyze routes and program metrics
- Create and enforce shared mobility policies

Populus Relevant Project Examples

Populus has worked with over 100 cities globally to plan, implement, and manage their shared mobility programs.

This includes Baltimore, Chicago, Columbus, Nashville, and more

Populus ingests data from over 30 different shared mobility providers



Forth

- Forth is a 501c3 nonprofit working nationwide to promote electric mobility since 2011
- We have 31 employees working from our main office in Portland, OR and remotely across six states including New York.
- We advocate for progressive policies, create innovative projects, and partner with diverse organizations and companies.
- Our focus areas include electric cars, charging, and emerging modes. We also organize the Forth Roadmap Conference – the nation’s leading electric transportation conference.
- Website: forthmobility.org



Avery Morris (averym@forthmobility.org)

August 14, 2025

E-Mobility Services

Forth supports communities to implement the following mobility modes via technical assistance, best practices, planning support, and pilot program implementation

- Bike Share & Scooter Share/Bike Libraries
- Programs to Support Bike and Scooter Ownership
- EV Rideshare and Shuttles
- EV Charging for businesses, multifamily residences, and in the public right of way
- EV Carshare
- Medium / Heavy Duty Vehicle electrification
- Agricultural Electrification



Forth Project Example

Green Energy and Mobility Program

- Three year holistic electric mobility and clean energy program where Forth worked to set up EV carshare, a shared e-bike fleet, two e-shuttle vans, EV chargers, and installation of a solar-powered chiller for climate control at two housing sites. Funded by Portland Clean Energy Fund.
- Collaborative program between Forth, Helping Hands Reentry, and Hacienda CDC. Partnerships with Greenpower, Vvolt E-Bikes, Shower's Pass, MDO Carshare.
- Program served residents of transitional housing and residents of affordable housing geared towards the Latinx community.
- At one site, services are operated by Helping Hands staff and built into future budget forecasting. At the second site, Forth manages the GoForth Carshare program which receives federal funding support.



Joyride

Leader in Lightweight Electric Vehicle Solutions

A market trailblazer since 2014 and headquartered in Toronto, Joyride's smart fleet management platform powers thousands of electric vehicles in 450+ markets, making mobility instantly keyless, connected, shareable and trackable.



Vince Cifani (vince@joyride.city)

August 14, 2025

Trusted By:



And more...

Short- and Long-Term Rentals for E-Bikes, Scooters, Golf Carts and LSVs

Tap and Go

- Easily locate authorized vehicles and unlock them through your branded app or ready-made Revii label

ID Verification

- Quickly authenticate rider IDs before granting vehicle access, all within the user app

In-App Notifications

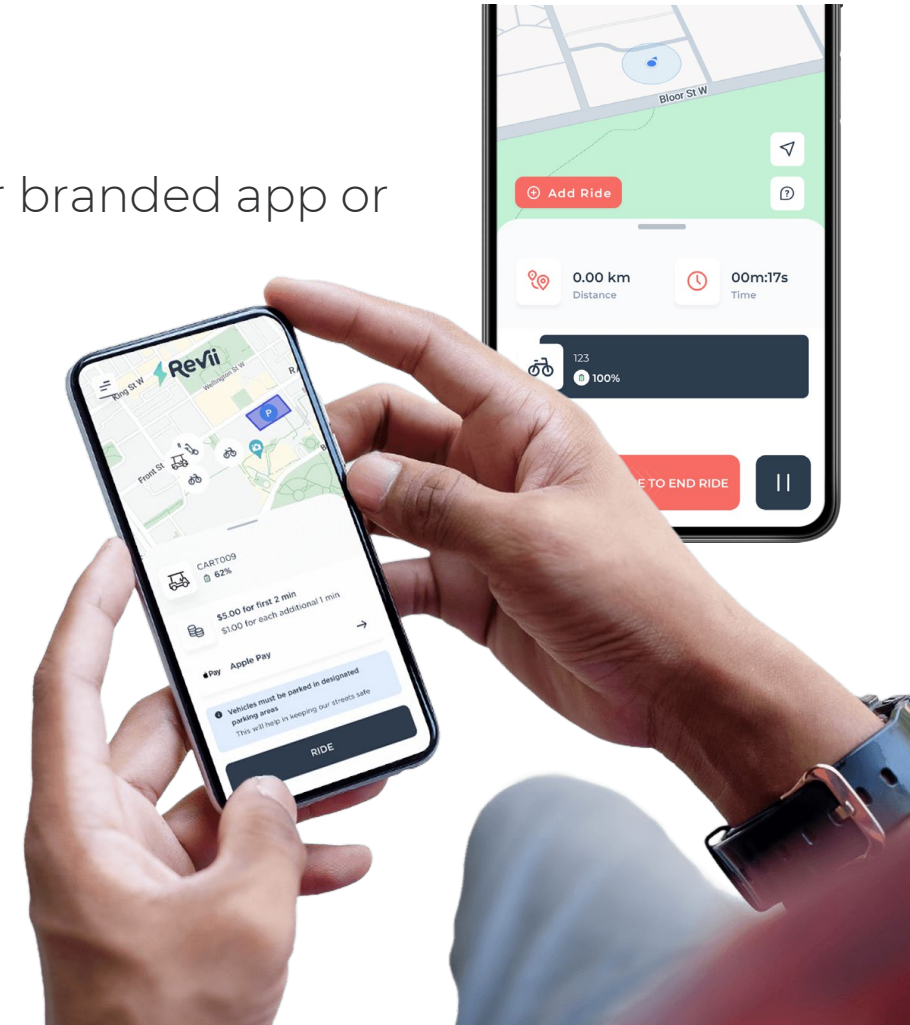
- Send instant notifications around safety issues (i.e. weather), slow speed zones and closures right away

Safety Suite

- Enforce safe driving with pre-ride safety screens, equipment checklists and reaction time tests

Parking Verification

- Verify vehicle returns with end-ride photos, and ensure placement in underserved areas



Connect to any vehicle or charging station for instant, actionable insights

Geofencing

- Define where vehicles must be parked, and take precautionary measures around highly trafficked areas

Location Tracking

- Stay one click away from knowing where vehicles are, who is using them and how they're performing

Analytics Suite

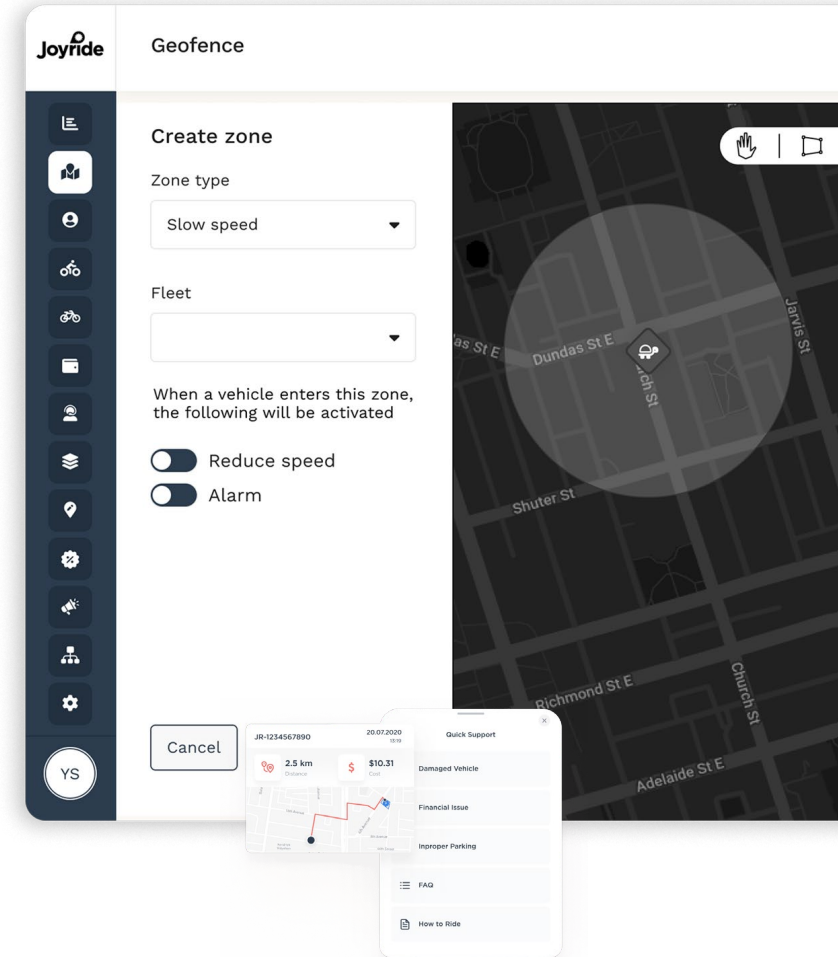
- Analyze fleet performance, visualize hotspots and the flow of traffic to reduce carbon footprints across cities

Access Control

- Decide who has access to which vehicles, and have a full understanding of who used them and when

Automated Support

- Receive 24/7 customer support with self-serve tools



Powering Public and Private Sustainable Mobility



Netherlands-based BAQME uses Joyride software to provide e-cargo bikes rentals to consumers and lease vehicles to delivery service providers



Canada's Zoom is the leading bike rental supplier in the Niagara region by leasing vehicles through hotels and self-guided winery tours, redefining tourist experiences



Joyride modernized an antiquated rental and billing system with app-based rentals for hundreds of vehicles out of hotels on the Cape Cod coast

Wrap Up

Thank you!