

E-mobility

Active Transportation Committee 8 June 2022

E-mobility

Device

**Electric standing
or sitting scooters
(e scooters)**



Electric bicycles (e-bikes)



**Class 1
Pedal assist (pedalec)**

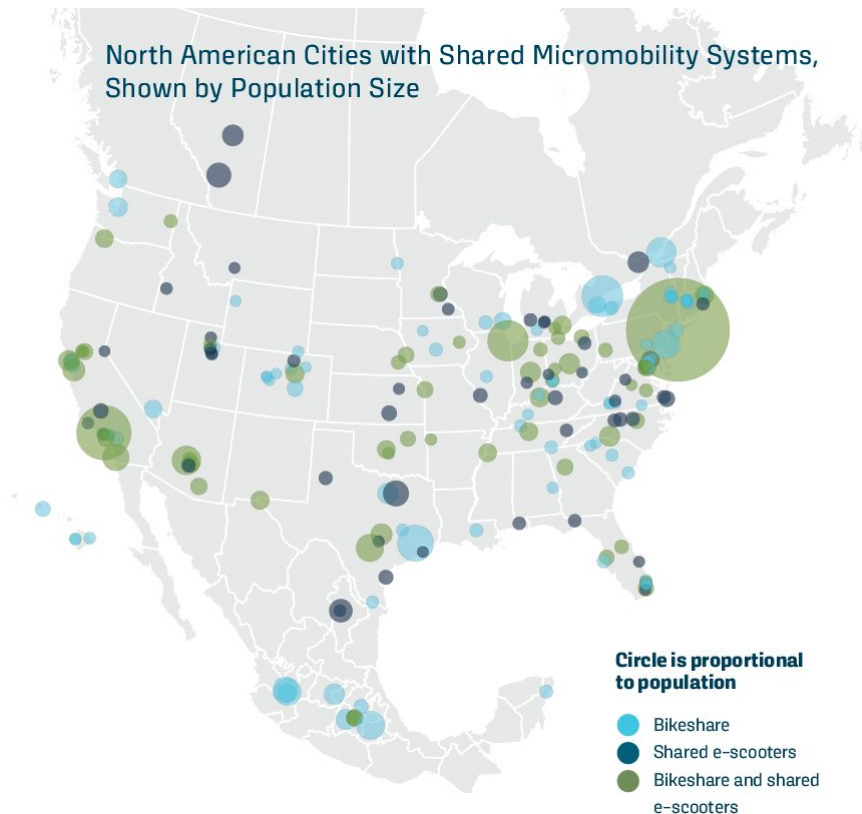
**Class 2
Throttle assist**

**Class 3
Pedal assist (pedalec)
at higher speed**

Other¹



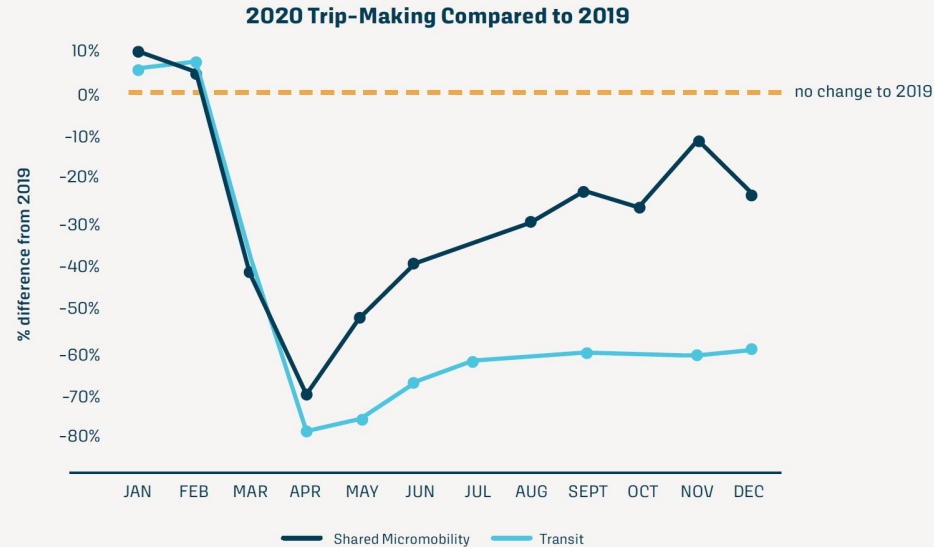
Shared micromobility



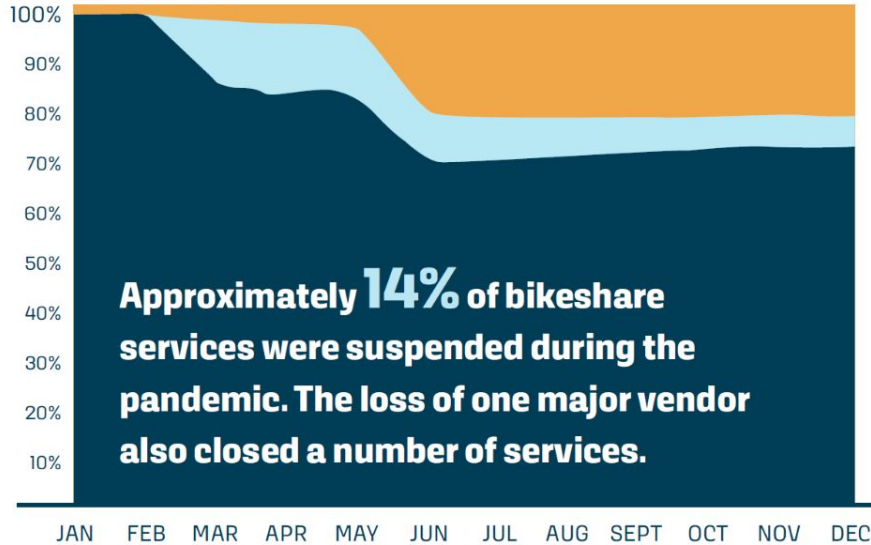
Source: [NABSA 2020 Report](#)

Trends During COVID-19

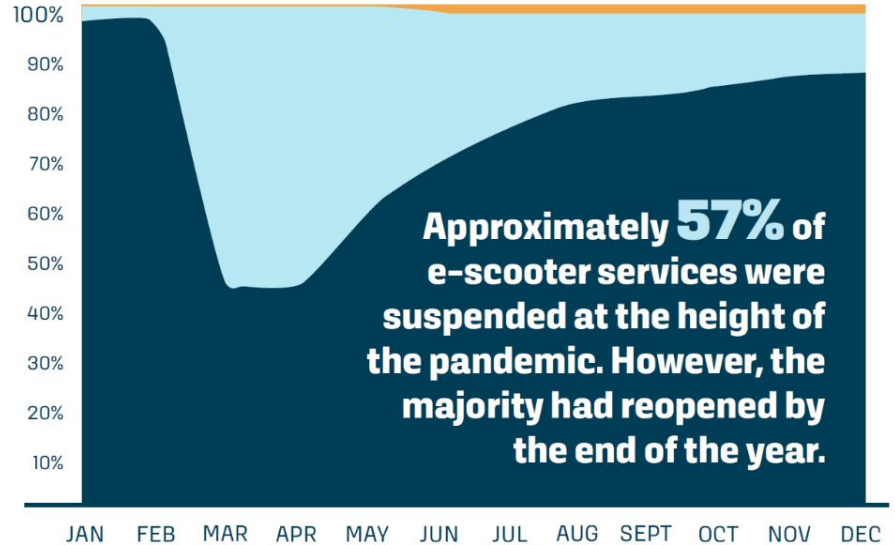
Shared micromobility ridership decreased early in the pandemic but rebounded quicker than other shared modes. By the end of the year, 2020 ridership was **within 20% of the previous year's levels.**



Bikeshare Service Changes during 2020



E-Scooter Service Changes during 2020



■ Open ■ Suspended ■ Permanently Closed





41-6a-1115. Motor assisted scooters

(1)(a) Except as otherwise provided in this section, a motor assisted scooter is subject to the provisions under this chapter for a **bicycle**.

41-6a-1115.1. Scooter-share programs

(2) A local authority **may regulate the operation of a motor assisted scooter** within its jurisdiction.

(3) A local authority **may authorize the operation of a motor assisted scooter on sidewalks** and regulate the operation, including the maximum speed on the sidewalks

(4) A regulation adopted by a local authority pursuant to this section regarding the operation of a motor assisted scooter shall be **consistent with the regulation of bicycles** and this title.



41-6a-102. Definitions

(5)(a) "Bicycle" means a wheeled vehicle:

- (i) propelled by human power by feet or hands acting upon pedals or cranks;
- (ii) with a seat or saddle designed for the use of the operator;
- (iii) designed to be operated on the ground; and
- (iv) whose wheels are not less than 14 inches in diameter.

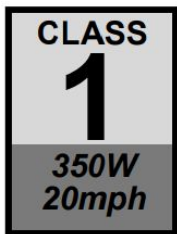
(b) **"Bicycle" includes an electric assisted bicycle.**



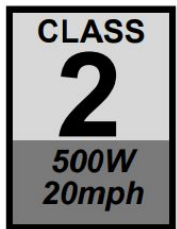
41-6a-1115.5. Electric assisted bicycles

- (1) Except as otherwise provided in this section, **an electric assisted bicycle is subject to the provisions under this chapter for a bicycle.**
- (2) An individual may operate an electric assisted bicycle on a path or trail designated for the use of a **bicycle.**
- (3) (a) A local authority or state agency may adopt an ordinance or rule to regulate or restrict the use of an **electric assisted bicycle, or a specific classification** of an electric assisted bicycle, **on a sidewalk, path, or trail within the jurisdiction of the local authority or state agency.**

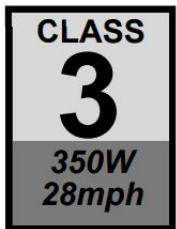
E-bike types



- 17) "Electric assisted bicycle" means a bicycle with an electric motor that:
- (d)(i) an electric assisted bicycle equipped with a motor or electronics that:
- (A) **provides assistance only when the rider is pedaling;** and
 - (B) ceases to provide assistance when the bicycle reaches the speed of **20 miles per hour;**



- (ii) an electric assisted bicycle equipped with a motor or electronics that:
- (A) **may be used exclusively to propel the bicycle;** and
 - (B) is not capable of providing assistance when the bicycle reaches the speed of **20 miles per hour;** or



- (iii) an electric assisted bicycle equipped with a motor or electronics that:
- (A) **provides assistance only when the rider is pedaling;**
 - (B) ceases to provide assistance when the bicycle reaches the speed of **28 miles per hour;** and
 - (C) is equipped with a speedometer.

ELECTRIC BICYCLE RULES FOR THE ROAD

MODEL LEGISLATION

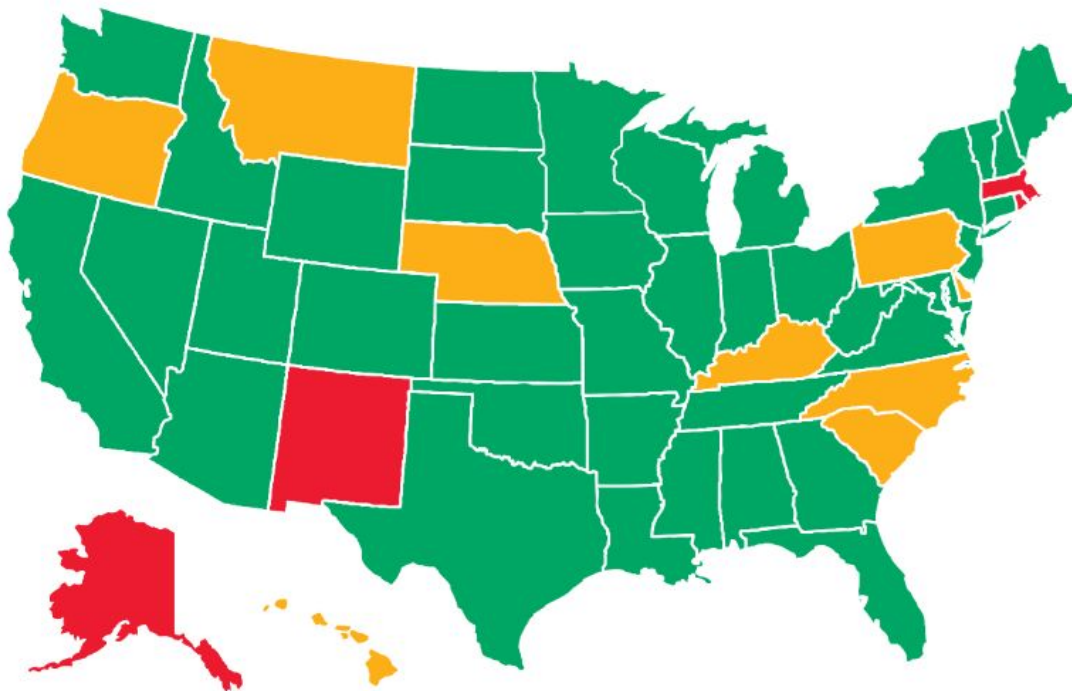
» States that have enacted PeopleForBikes' model law, which defines and regulates three classes of electric bicycles within states' motor vehicle codes, gives riders similar rights and duties to that of traditional bicycle riders.

ACCEPTABLE

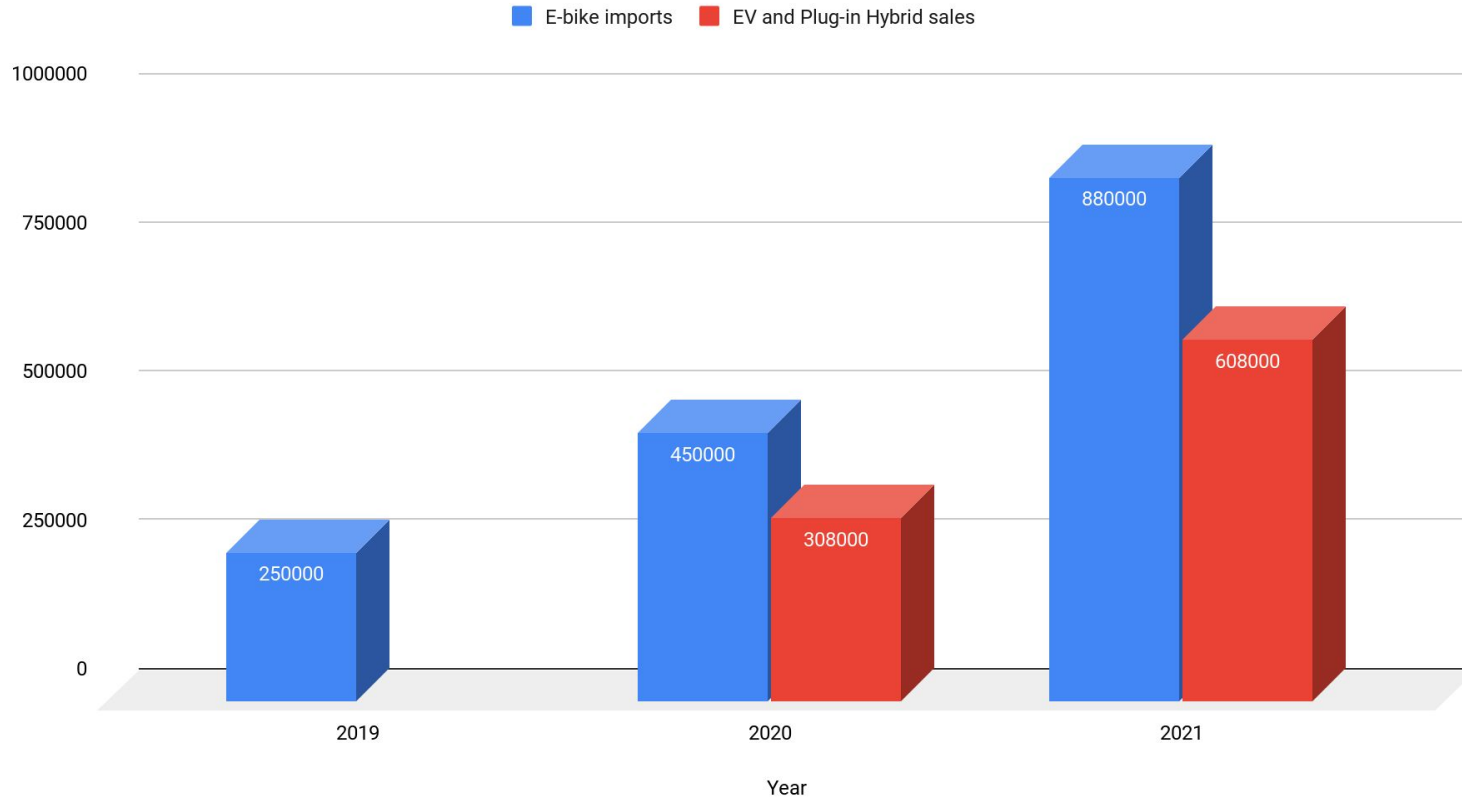
- » Regulated as a bicycle
- » Passengers allowed
- » No age minimum
- » No licensing or registration required
- » Can use existing bike infrastructure

PROBLEMATIC

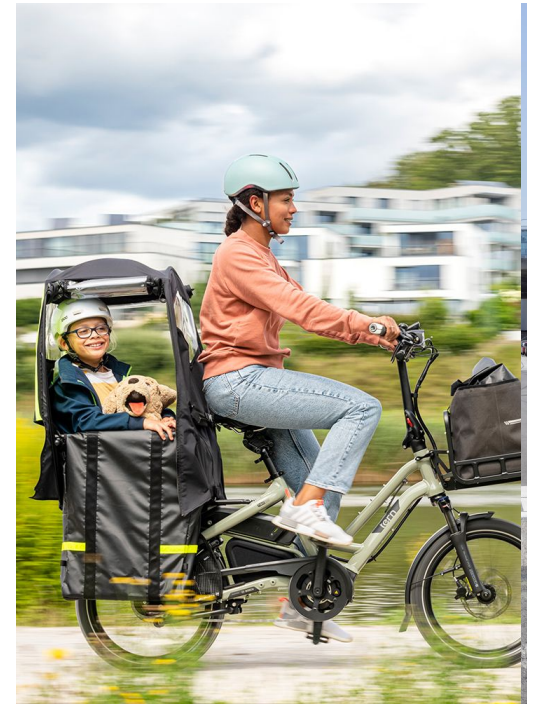
- » Regulated as a moped or motor vehicle
- » Confusing equipment + use requirements
- » Confusing licensing + registration requirements
- » Confusing access to bike infrastructure



E-bike imports and EV/Plug-in Hybrid sales



Source: [bicycling.com](https://www.bicycling.com)



E-mobility

Active Transportation Committee 8 June 2022



Thursday, June 23 at 1:00 p.m. EDT

WFRC: 6.7.2022



GREENbike is a 501(c)3 Non-Profit

Chair, Matt Sibul, Director of Sales, Stadler Rail

Vice-Chair, Amanda Smith, Chief Legal Counsel, Sustainable Power Group (S-Power)

Erin Mendenhall, Mayor, Salt Lake City (Proxy: Rachel Otto, Chief of Staff)

DJ Baxter, Consultant, Shielz, Oblitz & Johnson

Jaron Robertson, Director of Innovation Mobility Solutions, Utah Transit Authority (UTA)

Derek Allan, CEO & President, Land Forge Real Estate Development

Chase Murdock, Founder & CEO, Decada Ventures

Justin Smart, Partner, Penna Powers Strategic Communications Agency

Jon Larsen, SLC Transportation Division Director

Greg Reid, Public Relations Director, SelectHealth

Heidi Goedhart, Active Transportation Director, UDOT

Jory Johner, Long Range Planning Manager, Wasatch Front Regional Council (WFRC)



RECENT PARTNERSHIPS

- LDS Church

- UTA Hive Pass



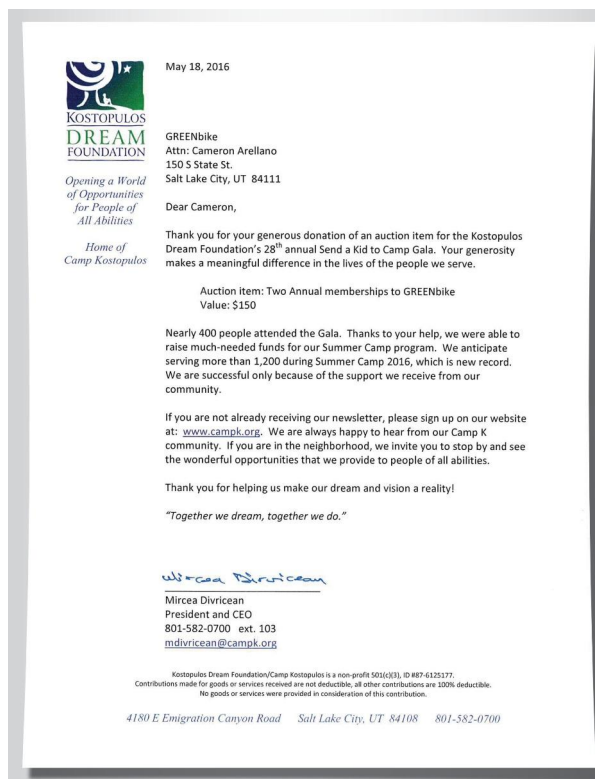
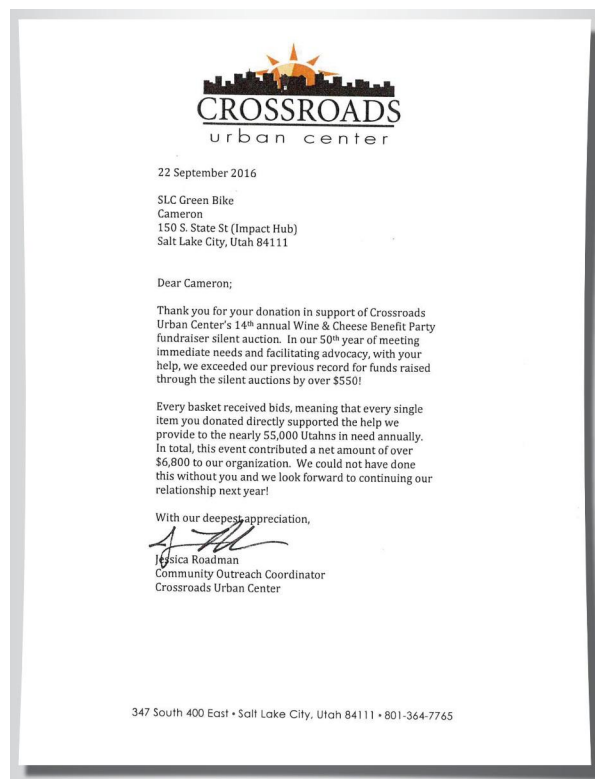
- Volunteers of America's Homeless Youth Resource Center

- Private Developers:

- CW Urban
- Lotus Properties
- PEG Development
- Clearwater
- Ribbon Properties
- Wasatch Properties

We Aren't Just Concerned With GREENbike!

Each year, GREENbike gives more than \$10k in free or discounted passes to dozens & dozens of community-centric or non-profit groups.





Making Wishes Come True with Bike Share Program

by Abigail Norton | Monday, June 29th 2015



4

VIEW ALL PHOTOS



GREENbike partnership nets more dollars for Utah museum

Deseret News
Published: February 15, 2018 2:07 pm

[Twitter](#) [Facebook](#) [Email](#) [RSS](#) [Leave a comment](#)



GREENbike

Affordable Housing

1. **Artspace**
 - **Solar Gardens**
 - **Rubber Company**
 - **Bridges Project**
2. **Giv Communities**
3. **Ecobox**



Equity Program (Go Pass)

The Salt Lake Tribune

GREENbike offers discount pass for low-income residents

By LEIA LARSEN
The Salt Lake Tribune

Salt Lake City's GREENbike share has launched a new discount program to get more residents pedaling.

The nonprofit announced its Go Pass on Thursday, which reduces its annual fee from \$75 to \$5 for those earning 200% or less of the federal poverty guidelines. That's about \$25,500 a year for a single person or \$52,400 for a family of four. The Go Pass discount is also available to people receiving food assistance, including the Supplemental Nutrition Assistance Program (SNAP).

At a news conference, GREENbike executive director Ben Bolte said low-income Utah families spend more than one-third of their household budgets on transportation.

"It's literally their single largest expense behind housing," Bolte said. "So as a local nonprofit, I feel we have a responsibility to make it easier for all members of our community to have access to affordable, clean, green transportation."

Qualifying residents can purchase a Go Pass at greenbikes.org/gopass. The card allows unlimited 60-minute rides for a full year. Those wishing to pay with cash can visit GREENbike's office at 150 S. State St. from 12 p.m. to



RICE BEAN / The Salt Lake Tribune

William Deering rides a GREENbike down 300 East in Salt Lake City on Thursday. The nonprofit GREENbike hopes a discount program will draw more residents to the bikes.

Kathy Bray of Volunteers for America, one of GREENbike's partner organizations, said the Go Pass program will help homeless youth connect with employment.

"They have an answer as to, 'How do I get there?'" Bray said.

The coronavirus pandemic has accelerated health disparities among low-income and minority populations, said SelectHealth CEO Pat Richards. The public health crisis also hit

cut services after use dropped by 60%, although it plans to restore most of the pre-pandemic services on Aug. 25.

GREENbike, too, saw ridership deflate.

"As of today, our ridership is 25% below where it was last year," said GREENbike marketing and engagement manager Kate Myklebust. "We attribute this to fewer people commuting or visiting downtown."

A national news story says up

and GREENbike saw a 39% boost in ridership earlier this year, before the pandemic forced business closures in mid-March.

Salt Lake City Council member Amy Fowler offered words of support for the discount bike share program.

"Salt Lake City ... is committed to our air quality, our transportation and equity," Fowler said. "With this \$5 Go Pass, we are supporting and seeing that we can address the



NEW GREENBIKE PASS FOR LOW-INCOME RIDERS
SALT LAKE CITY



Utah Business

THE MAGAZINE FOR DECISION MAKERS

GREENbike Announces Equity Program: Go Pass



Equity Program (Go Pass)

“Thank You” Email from User

September 24, 2020

“Thank you so very much. Money is very tight right now, and this is LITERALLY helping me keep my job and preventing me from becoming homeless again (long story).

Yes, something as little as a bike can make a world of difference.

This is seriously keeping me from turning back to old behaviors. Just wanted to say a very sincere, thank you very much!

Aaron R.”

“Thank You” Tweet from User



G.T. Esplin
@gregoriesplin

If you're [#lowincome](#) and in [#SLC](#), you can get a year of use of [@SLCBikeShare](#) for only \$5 a year with the [#GoPass](#). As long as you make 200% or less of federal poverty guidelines, you're eligible. I just signed up and went for a spin! Fun, convenient, and environmentally friendly!

2:27 PM · 8/21/20 · [Twitter Web App](#)

Local Leader's Winter Ride for the Homeless Youth Resource Center

WHAT IS IT?

On October 28th, 20 local leaders will ride GREENbikes to support the VOA's Homeless Youth Resource Center. For every leader that rides, GREENbike donates 50 articles of NEW winter clothing to the Homeless Youth Resource Center, totalling 1,000 new pieces of winter clothing being donated.

WHY IS GREENBIKE DOING THIS?

- 1: To remind people you can GREENbike in the winter.
- 2: To highlight SLC's fantastic protected bikes lanes.
- 3: To help the Homeless Youth Resource Center.



Local Leaders Charity Ride for Homeless Youth Resource Center

Riders Included:

- SLC Mayor, Erin Mendenhall
- City Council Member, Amy Fowler
- City Council Member, Darin Mano
- City Council Member, Dan Dugan
- Key Bank President, Terry Grant
- Fox 13 News Reporter, Ben Winslow
- Salt Lake Tribune Columnist, Robert Gerhke
- Salt Lake Magazine Editor-in-Chief, Jeremy Pugh
- SLUG Magazine Editor-in-Chief, Angela H. Brown
- Outdoor Afro Leader, Ashley Cleveland
- Downtown Alliance ED, Dee Brewer
- Giv Group/Development ED, Chris Parker
- 02 Utah ED, David Garbett
- Colmena Group Executive, Aabir Malik
- Ray Quinney & Nebekar Attorney, Pat Reimherr

saltlake
MAGAZINE

Masked GREENbikers Ride for Charity

GREENbike's charity ride with local leaders donates 1,100 pieces of new clothing to Homeless Youth Resource Center

■ By Jeremy Pugh - October 29, 2020



On Wednesday, October 28, 2020, under a fading fall sunset, masked business leaders, bike aficionados, political types and a few random media folks, gathered (more like sensibly fanned out) at the GREENbike station on Rio Grande Street and 300 South to prove that yes, you can ride bikes when it's cold. More importantly, the bike share donated a pile of winter clothing to Volunteers of America's Utah Homeless Youth Resource Center (VOA).

"We're so grateful that all of these community leaders were willing to participate in tonight's ride," said GREENbike Founder and Executive Director Ben Bolte. "The goals of the ride are to remind people that you can bike in the winter, that SLC has great bike infrastructure and that the Volunteers of America is an amazing organization that we should all support."

On behalf of the riders, GREENbike purchased 192 beanies, 192 pairs of adult gloves, 240 pairs of adult socks, 156 pairs of children's gloves, 120 pairs of children's socks, and 200 rain ponchos (1,100 total pairs) to donate to the Homeless Youth Resource Center.

"Because of the support of our amazing community, homeless individuals will stay warm this winter," Kathy Bray, President of

VOA Utah said. "Cold weather items go fast during the winter months." Many of the youth served by VOA Utah, use GREENbike as a method of transit, Bray said, and the donations will help keep them warm as temperatures drop. The VOA has urgent need for more donations and has set up a [wishlist](#) on their website where you, your family or your organization can learn more about the specific needs and donate. Consider holding a charitable drive for our greatest needs," Bray asked the gathered riders. To find out more visit: voaut.org/in-kind.

The riders set off in a gaggle across town, using the protected bike lanes of 300 South (The Becker Bike Highway, we like to call it) ending at one of GREENbike's newest stations on the corner of 700 East and 300 South, Papa Murphy's adjacent. From there, they dispersed into the twilight. Local leaders that participated in the ride included:

• Salt Lake City Mayor Erin Mendenhall

• Utah Transit Authority (UTA) Trustee Beth Holbrook

• Salt Lake Tribune Columnist Robert Gerhke

• Salt Lake City Council Member Amy Fowler

• Downtown Alliance Director Dee Brewer

• Salt Lake City Council Member Darin Mano

• SLUG Magazine Editor-in-Chief Angela H. Brown

• Salt Lake City Council Member Andrew Johnston

• FOX13 News Reporter Ben Winslow

• Salt Lake City Council Member Dan Dugan

• UCAIR Executive Director Thom Carter

• 02 Utah Executive Director David Garbett

• Give Group Executive Director Chris Parker

• Jordan River Commission Executive Director Soren Simonson

• Colmena Group Development Executive Aabir Malik

• SelectHealth Risk Adjustment Coding Auditor Arji Lefler

• Ray Quinney & Nebekar Attorney Pat Reimherr

• GREENbike Board Chair / Stadler Rail Director of Sales Matt Sibul

• GREENbike Executive Director Ben Bolte

GREENBIKE MAINTENANCE/SAFETY

- Still use original products from 2013
- Have full-time technicians that receive a living wage and health benefits
- With thousands of users surveyed from 2013-2020...
 - Less than 1% have rated our maintenance as “poor.” 81% of users rated it “good” and 18% rated it “fair.”
 - Less than 1% have rated the cleanliness of our bikes/stations as “poor.” 89% of users rated it “good” and 10% rated it “fair.”
 - Less than 1% have rated our customer service as “poor.” 82% of users rated it “good” and 14% rated it “fair.”



WHAT'S NEXT?



- **Currently have 650+ bikes (50 are e-bikes) at 47 stations**
(each station can hold an average of 23 bikes at a time)
- **Secured capital \$'s for 300 e-bikes at 15-20 stations for SLC**
- **Ogden launch: August 2022**
- **Future Expansion???**



AGENDA

1. Hello!
2. Lime in Utah
3. Conclusion
4. Q&A



WHO IS LIME?

Lime is the world's largest shared electric vehicle company.



OUR MISSION

Build a future where transportation is shared, affordable and carbon-free.



Our Core Principles

01

Safety



02

Sustainability



03

Community



04

Innovation



Milestones

250MM

Million rides

200+

Cities

65M+

Car trips replaced

25

Metric tons of carbon
avoided



1. Lime Success in the Wasatch Front

1. The Wasatch Front is a growing community with a vibrant, diverse economy.
2. Lime efficiently serves the Wasatch Front with to our robust warehouse in WVC.
3. The community is supportive of multi-modal transportation and places importance on greenhouse gas emissions reduction.
4. Opportunity to partner with WFRC to bolster first/last-mile connection for commuters and visitors throughout the greater Salt Lake metropolitan area.



2. What mobility problem, or set of mobility problems, can shared scooters address?

1. Shared scooters provide a more affordable transportation alternative to reliance on single-occupancy vehicle trips, especially given high fuel prices.
2. Shared scooters are convenient and easy to use. No need to worry about maintenance and repair costs.
3. Using a shared scooter for trips five miles or less is often more affordable than paying parking fees in many cities.
4. Scooters are becoming safer as the micro-mobility industry continues to innovate to improve the rider experience.
5. Lime offers a robust low-income assistance program with easy enrollment to help reduce barriers for low-income households, communities of color, immigrants and refugees, the disabled, and others who have been traditionally left behind.



3. How do scooters serve as a first/last-mile transit solution in Utah?

Lime is pleased to engage the Wasatch Front and work with the WFRC on expanding their trip planner and developing a plan for more **designated scooter-share parking areas** and other appropriate transit stops.

We would implement parking pins at these locations to accomplish the following objectives:

- Ensure **tidy parking** of scooters that does not block access for individuals with disabilities.
- Help provide **better predictability for riders** to find available scooters to complete their trip.

We are continuing to market our **Lime Access low-income assistance program to ensure that transit riders receiving reduced fare would also benefit from our services.**

We would like to coordinate with WFRC on special promotional opportunities and provide incentives to riders who use scooter-share as their first/last-mile connection.



4. Comparable cities and challenges to operation in a unique context

When working with suburban city partners, Lime keeps the following principles top-of-mind when designing our programming:

- **Suburban communities have their own unique identity** that is distinct from the major nearby city.
- We need to be responsive to each community's needs, which can entail **different operational policies than what we might have in larger cities.**

Example: Hill AFB

We are currently serving the Hill AFB community with the only Gen 4 multi-modal fleet. This fleet has swappable battery technology that further enhances our mission for carbon free, affordable, shared mobility solutions.



5. Serving the needs of low-income, underserved, and other equity populations

Providing an affordable transportation option is **integral to Lime's core mission**.

We offer our Lime Access program in Utah, which is available to individuals who qualify for any local, state, or federal low-income assistance program. Enrolled participants receive up to **\$.50 unlock and \$.07/minute**. Since Lime began the program, Lime Access has saved Utah riders over \$100,000. This program is available to anyone on Government Assistance or who already receive reduce fares from UTA.

We are proactive in marketing Lime Access to eligible populations. Some examples of our outreach efforts include:

- Providing multilingual outreach materials to partner organizations.
- Our partner organizations regularly help spread the word via their newsletters and other communications.
- Sharing information at our First Ride Academy events, such as our recent fleet launch in Clearfield



6. Tracking and analyzing data on GHG emissions reduction

Lime considers two primary factors when analyzing our impact in reducing greenhouse gas emissions:

- **Vehicle Miles Traveled (VMT)** in the course of our operations
- **Vehicle trips replaced by micro-mobility** trips by our riders

Salt Lake City, estimated saving 2.7 million lbs of carbon emissions by replacing an estimated 350,000 car trips in the city.

To address VMT, Lime developed our new **Gen 4 scooters to operate on swappable batteries**. We've been able **reduce VMT and van trips in cities with Gen 4 scooters by up to 69.5%**. We also utilize EV vans in many of our markets.

Lime's data team analyzes the GHG emissions reduction impact of rides taken on our vehicles compared to the emissions for the same trips if they had been taken in single-occupancy or shared vehicle. Such data is provided to cities in our regular reporting.



7. Technology solutions for managing scooter usage in cities

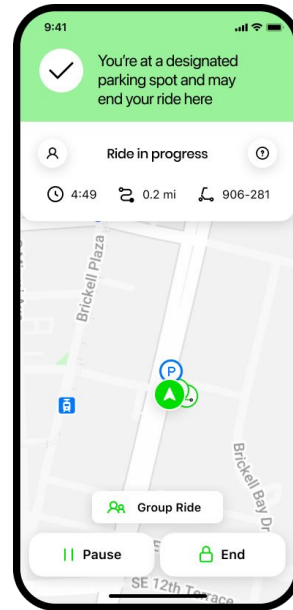
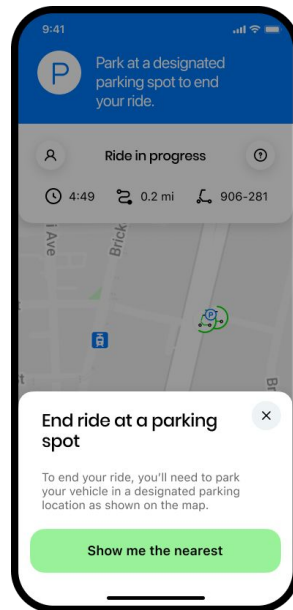
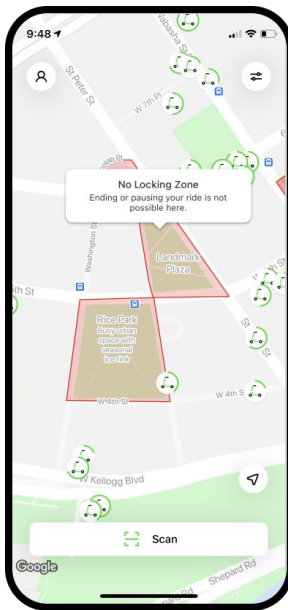
Lime deploys a variety of tech solutions for managing scooter usage in cities, including examples below:

Geofencing:

- Slow speed zones
- No parking zones
- No operating zones
- No sidewalk riding
- Vehicle rebalance triggers

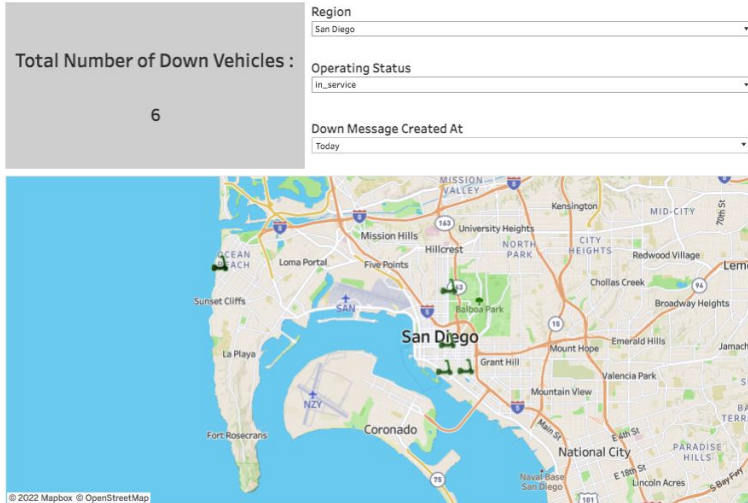
Parking:

- Preferred parking pins
- Mandatory parking pins



7. Technology solutions for managing scooter usage in cities

Lime deploys a variety of tech solutions for managing scooter usage in cities, including examples below:

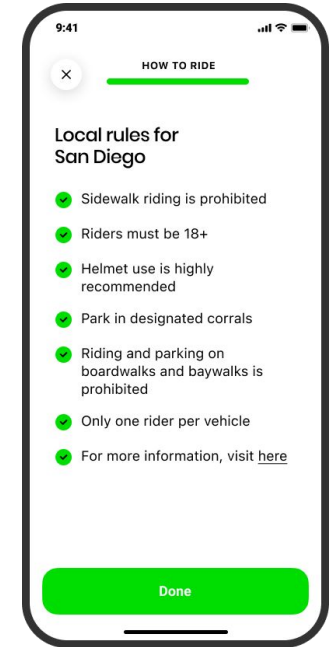


Vehicle:

- Gyroscope and Toppled Vehicle Dashboard
- Overcrowded Vehicle Dashboard

In-app:

- Safety messaging with the specific local rules / ability to create mandatory safety quizzes before a rider's first use in market



8. Opportunities/advantages/disadvantages to partnering with nearby cities

Lime serves many regions in which the largest city is the “hub” and surrounding communities benefit from shared mobility as well.

Opportunities: Broaden partnership with regional transit authorities to plan for and incentivize shared mobility usage as a first/last-mile solution. Consistent rules throughout the region help ease enforcement and lessen confusion for riders. Partnerships with regional housing providers and other organizations serving the broader region work best when we have broader service coverage.

Advantages: Vehicles occasionally end up in surrounding communities anyway, so service to suburbs is a logical solution. Suburban markets are easily serviced through the main warehouse operations in the hub city.

Disadvantages: If regulations are inconsistent across city lines, it can cause rider confusion.



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Lime

2019



BIRD

2021











Tickets

UTA

SUNDAYS
No FrontRunner service

PRESS & FOR ASSISTANCE

COINS

BILLS

TICKETS
CHANGE









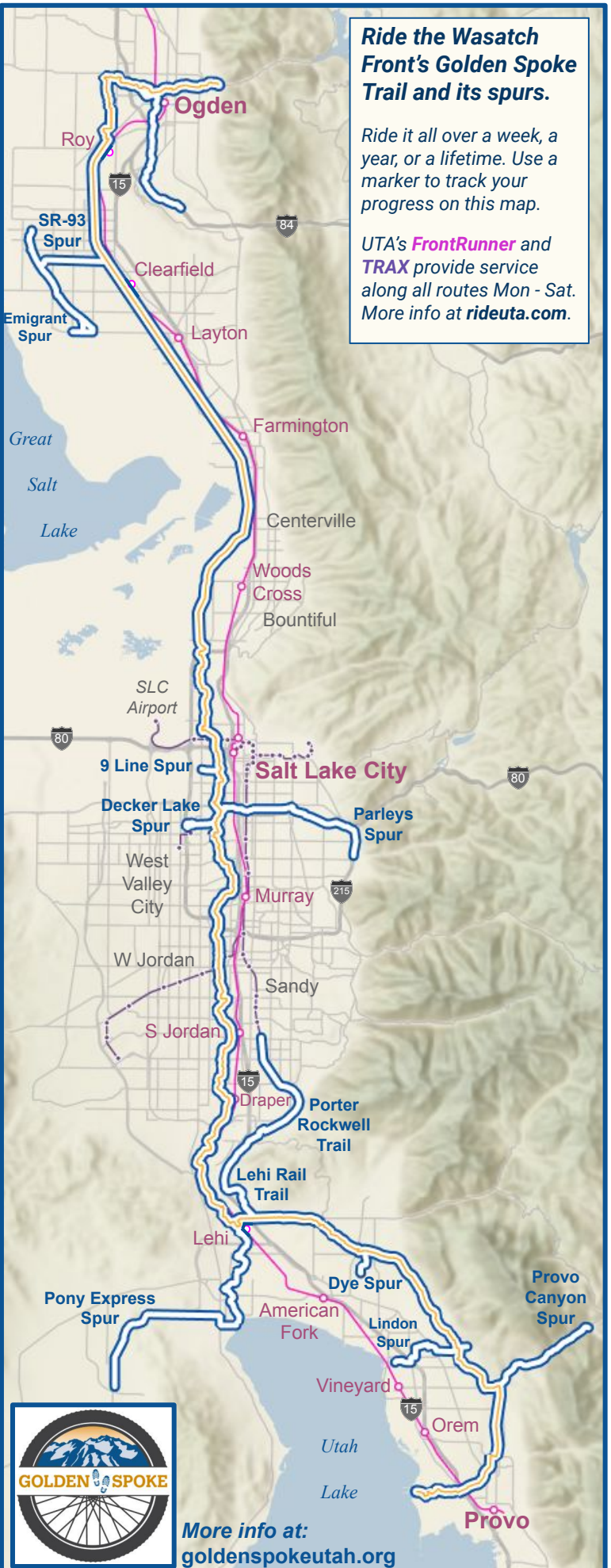


Ride The Golden Spoke!

Ride the Wasatch Front's Golden Spoke Trail and its spurs.

Ride it all over a week, a year, or a lifetime. Use a marker to track your progress on this map.

UTA's **FrontRunner** and **TRAX** provide service along all routes Mon - Sat. More info at rideuta.com.



More info at:
goldenspokeutah.org