



Standards &  
Engagement



## Ensuring Safety in Micro-Mobility



Safety Science in Action™

# UL Standards & Engagement: Our Objectives

---

**Enable innovation**



---

**Grow trust**



---

**Promote access**



# Market footprint expands as e-mobility options proliferate

---

**13%**

of U.S. adults in ULSE surveys say they **OWN** an e-bike

---

**269%**

increase in e-bike sales in the U.S. between 2019 and 2022 according to analyst firm Circana

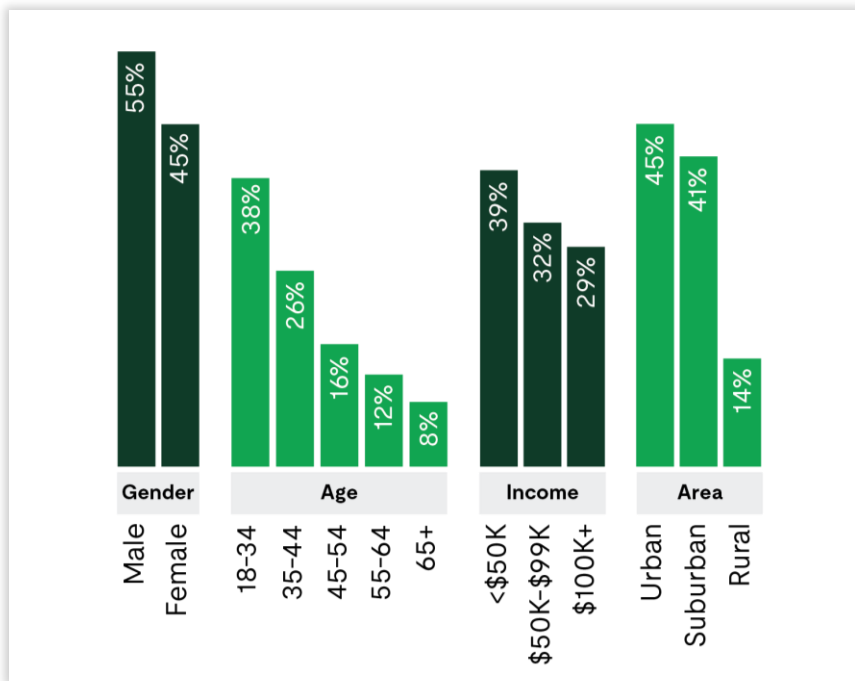
---

**12%**

of U.S. adults in ULSE surveys say they **RENT** e-bikes once a month or more often

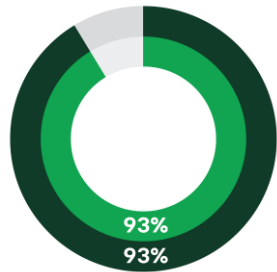


# Portrait of average rider is urban, young, and male

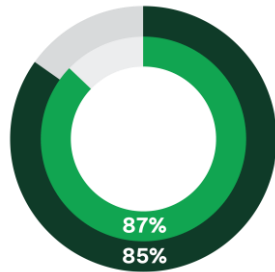


# Buyers are attracted by convenience and cost savings

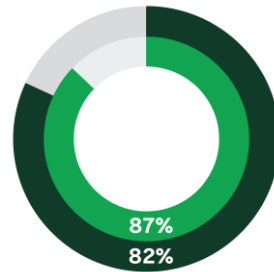
% “Very” + % “Somewhat Important” responses



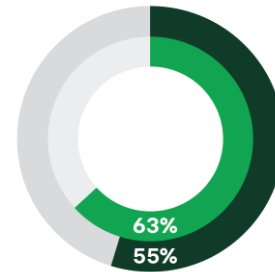
Convenience of charging e-bike or e-scooter at home



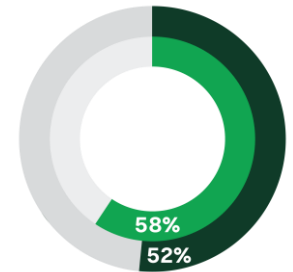
Saving money on gas



Helping the environment



Financial incentive from the gov. such as tax credits or rebates



For work-related tasks (e.g., delivery work through Grubhub, UberEats, Amazon, etc.)



**54% of current e-bike and e-scooter owners purchased it to support work-related tasks such as delivery gigs**



# Riders are downplaying the risks

E-mobility users who underestimate the threat of electric shock from damaged or overcharged batteries

47%

E-mobility users who dismiss personal relevance to fire or electric shock risks

45%

Riders who are unaware of electric shock risks from damaged or overcharged batteries

23%



# Key e-mobility documents in our library

At UL Standards & Engagement, we work with stakeholders to achieve a safer world through standards. There are more than 80 standards developed by ULSE that address lithium-ion battery risks, offering a layer of protection for consumers.

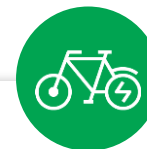
For e-bikes and scooters, **ULSE** has three standards that cover the vehicles and the batteries that power them.



UL 2272  
**Personal  
e-Mobility  
Devices**



UL 2271  
**Light Electric  
Vehicles**



UL 2849  
**e-Bikes**



# Safe behaviors

- Unplug your device when it reaches full charge
- Do not leave your device charging overnight
- Do not block your fire exit when charging your device
- Shop local when buying OR replacing your bike, battery or charger
- Look for the safety certification at each point of the charging ecosystem



# Government Initiatives

## Incentive Programs

**Washington, DC:** Financial incentive program that mandates e-bikes eligible for a discounts must meet specific ULSE standards for battery safety  
*Launched Sept. 19, 2023*

**Denver, CO:** Instant rebate program that allows qualified e-mobility devices to be certified to specific ULSE safety standards  
*Launched 2022*

## City Legislation

**New York City:** Local Law 39 prohibits the sale, lease, or rental of e-mobility devices and their batteries that do not meet three ULSE safety standards  
*Effective as of Sept. 16, 2023*

**Jersey City:** Ordinance 24-023 prohibits the distribution and sale of lithium-ion batteries for e-mobility devices that are not listed and labeled by UL  
*Adopted April 2024*

# Questions?

**Jennifer Bradley**  
Sr. Manager, Partnerships  
[Jennifer.Bradley@ul.org](mailto:Jennifer.Bradley@ul.org)





**Standards &  
Engagement**