

# St. Louis Vehicle Electrification Rides for Seniors (SiLVERS)

## 2023 Show Me Summit on Aging and Health

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Photo: SiLVERS launch event, September 2021



# OVERVIEW

- Introduction
- SiLVERS Background and Program Development
- Operations
- Staff, Volunteer, and Client Experience
- Results to Date
- What's Next?
- Q&A



# FORTH'S MISSION



Forth's mission is to electrify transportation by bringing people together to create solutions that reduce pollution and barriers to access.



# ATTENDEE POLL

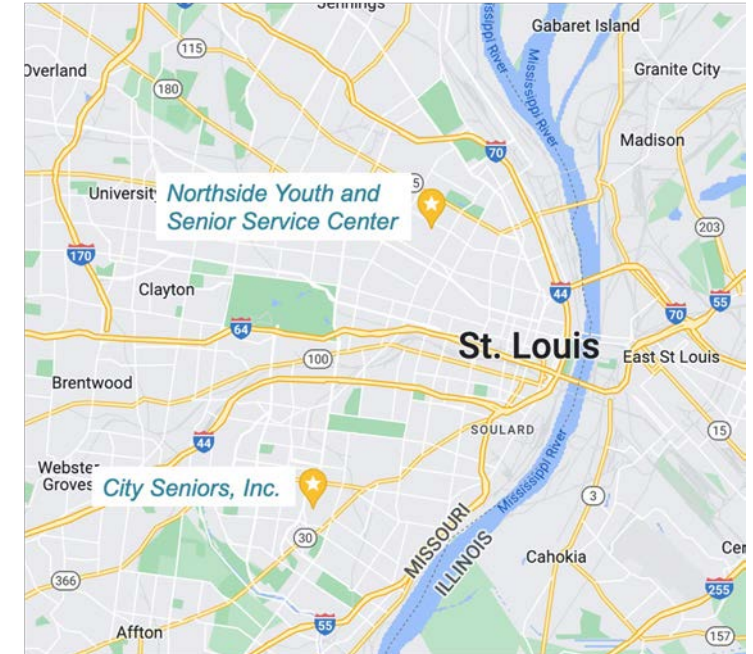
Have you driven or taken a ride in an EV?

What was your experience like?



## SiLVERS: St. Louis Vehicle Electrification Rides for Seniors

- The SiLVERS program provides five all-electric Chevy Bolts to two senior centers (Northside and City Seniors, Inc.)
- EVs are used to provide rides and deliver meals to seniors
- **Objectives:** Increase EV adoption and reduce transportation-related operating expenses for social service agencies, showing that:
  - EV fleets can save community based organizations money and improve service delivery
  - EV chargers can serve both CBO fleets, as well as staff and community members
  - Pilots like this can accelerate regional EV adoption
  - With tools and best practices based on this model, SiLVERS can be replicated by CBOs and social service agencies nationwide



## Timeline

October 1, 2020 - March 31, 2023

## Budget

Total Project Funding: \$1,032,392

DOE Share: \$500,000

Cost Share: \$532,392

## Partners





# CITY OF ST. LOUIS AMERICAN CITIES CLIMATE CHALLENGE WORK 2019-2021

Building Energy Efficiency	Renewable Energy	Low-Carbon Transportation
<ul style="list-style-type: none"><li>• <b>Develop a Building Energy Performance Standard “BEPS” Ordinance for buildings 50,000 square feet or larger</b></li><li>• <b>Create a BEPS oversight board and implementation program</b></li><li>• <b>Develop building performance scorecards</b></li><li>• <b>Conduct outreach / enforce the City’s Building Energy Awareness “Benchmarking” Ordinance</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Evaluate municipal options for renewable energy procurement and on-site solar generation</b></li><li>• <b>Develop a Solar Readiness Ordinance for new construction projects that are 5 stories or lower</b></li><li>• <b>Launch a solar workforce development pilot to better promote diversity, equity and inclusion in the regional green economy</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Prioritize municipal purchases of Electric Vehicles (EVs) &amp; charging stations using VW Trust Funds</b></li><li>• <b>Issue a clean vehicle purchasing strategy for municipal fleet</b></li><li>• <b>Develop an EV Ordinance</b></li><li>• <b>Conduct an EV pilot that centers equity considerations</b></li><li>• <b>Map a network of calm streets corridors that improves cycling &amp; mobility</b></li></ul>

## Components of SiLVERS

- 5 new Electric Vehicles for the fleet
  - 3 at Northside Youth and Senior Service Center
  - 2 at City Seniors, Inc.
  - Car insurance covered through FORTH
- 5 EV chargers to be used in the fleet and by the public
  - Chargers, installation, maintenance and operation covered by program
- \$25,000 for each CBO personnel time
  - Over 3 years, covers personnel time for training in the program and promotion to community





# RESULTS (through June 2023)



100,765

meals delivered



2,055

rides provided



461

unique individuals  
received rides



45,000+

lbs of CO2 saved

28451.060  
KWHs

Total Energy

or

45521.696

Metric lbs of  
CO2 saved

=

CO2 Emissions From:



2276.1

Gallons of gasoline



22163

Pounds of coal burned

Greenhouse gas  
emissions avoided by:



5.690

Tons of waste recycled  
instead of landfilled

Carbon sequestered  
by:



25.606

Acres of U.S. forests in  
one year

## Demographics Served

- 40% of rides provided to persons aged 65-74 (the highest percentage of clients served)
- 27 clients over age 84 received rides
- 75% of clients served are female
- 52% of clients served are African American
- The average client served is a low-income African American woman in the 65-74 age range living in North City





# COST SAVINGS

## Northside Cost Savings

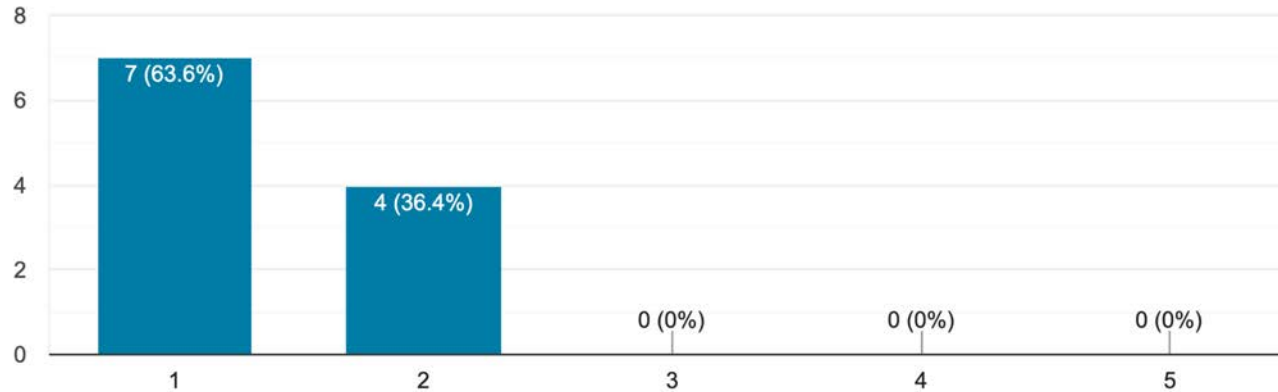
- Avg \$1,716 EV annual charge cost
- Avg \$8,400 gas vans annual cost
- Avg \$4,200 for smaller gas vehicles
- Savings of at least \$2484 ANNUALLY



# STAFF AND CLIENT EXPERIENCE

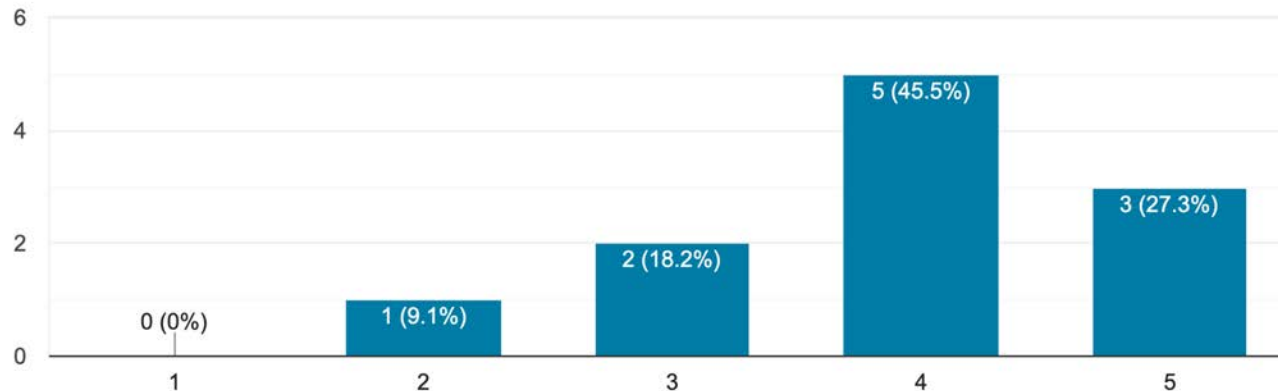
What was your knowledge level of electric vehicles (EVs) and EV charging before the SiLVERS program began (before September 2021)?

11 responses



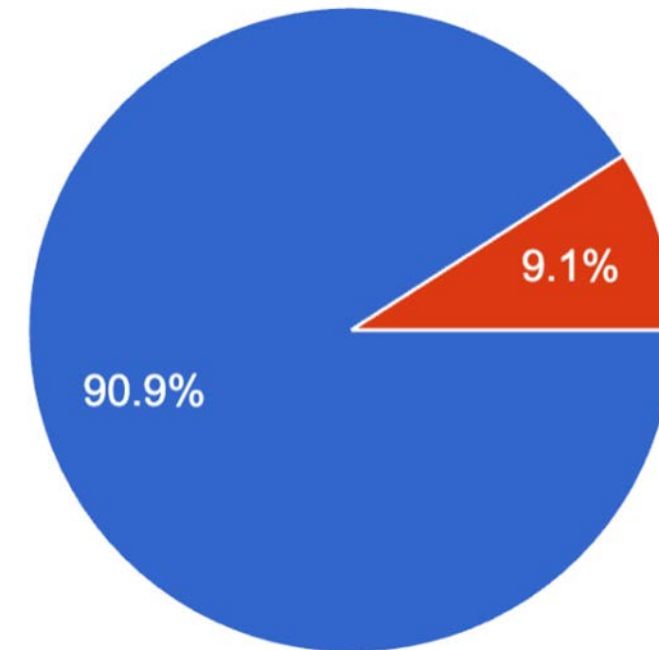
What is your knowledge level of EVs and EV charging now?

11 responses



Are you more interested or less interested to purchase an EV as your personal vehicle now, compared to before the SiLVERS program began (September 2021)?

11 responses

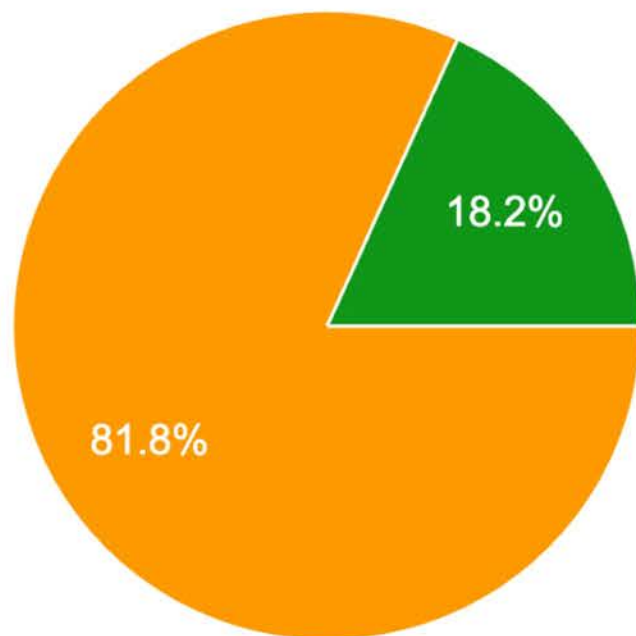


- More interested to purchase an EV as my personal vehicle now
- No change - I am just as interested to purchase an EV now as I was before the SiLVERS program began
- Less interested to purchase an EV as my personal vehicle now



How effective, helpful, or useful have the SiLVERS EVs been for meal delivery?

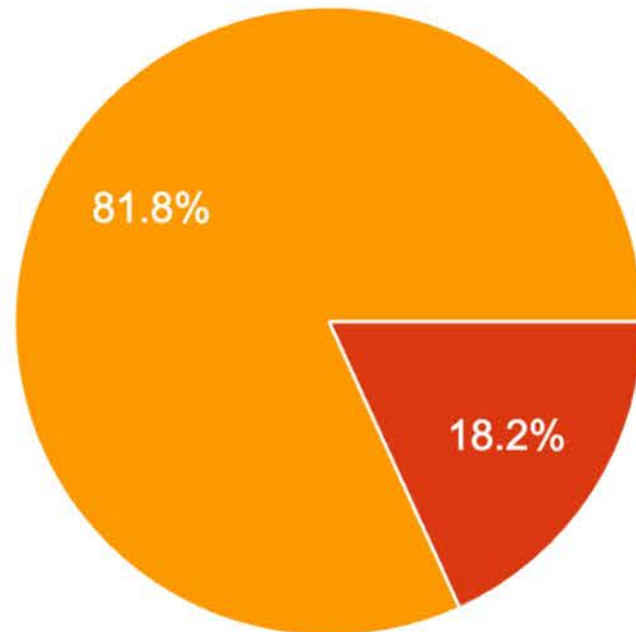
11 responses



- Not effective (many needs have not been fulfilled)
- Somewhat effective (some needs have been fulfilled, some needs have not been fulfilled)
- Very effective (most or all needs have been fulfilled)
- I have not used the SiLVERS EVs to deliver meals

How effective, helpful, or useful have the SiLVERS EVs been for providing rides to seniors?

11 responses



- Not effective (many needs have not been fulfilled)
- Somewhat effective (some needs have been fulfilled, some needs have not been fulfilled)
- Very effective (most or all needs have been fulfilled)
- I have not used the SiLVERS EVs to provide rides to seniors



## **Staff Feedback from Survey**

“This is a great program and we're excited for a possible "SiLVERS V2" where hopefully we can find funding to expand the capacity of the program so more seniors can take rides. Thank you for the partnership!”

“Passengers have enjoyed the quiet, smooth rides that the EVs provide. The drivers enjoy not having to go to the gas stations as often when they're able to use the EVs.”

“It has made me consider my next vehicle purchase being EV.”

“The EVs have been very useful and have saved on fuel costs.”

## **Client Feedback**

“Smooth ride, getting in/out is easy.”

“I like, no I love the electric vehicle. It's smooth.”

# WHAT'S NEXT?

## Project Wrap-up

- Data collection and analysis
- Train & pass management of charging stations to CBOs
- Return vehicles (or buyout the lease)

## Sharing Resources and Results

- Share results through workshops and conferences
- Provide technical assistance to three Clean Cities Coalitions
- Produce final case study
- Share resource toolkit ([forthmobility.org/silvers](https://forthmobility.org/silvers))

## SiLVERS 2.0?

- New vehicle types? More CBOs? New regions?
- An idea for an EV project in your area?

Contact: [connorh@forthmobility.org](mailto:connorh@forthmobility.org)





zero Emission

# QUESTIONS?