

**Community Bridges Lift Line
Paratransit Dial-a-Ride Electric
Vehicle Transition Program**

Final Report to the California Air Resources Board



FY 2021-2024

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A. Description of Project:

Community Bridges Lift Line Paratransit Dial-a-Ride Electric Vehicle Transition Program.

As part of Lift Line’s goal to transition from gas-powered vehicles to vehicles with low to zero (0) emissions, this project allowed us to replace three existing gas-powered buses with fully electric buses of the same passenger capacity. These electric buses provide door-to-door paratransit rides for seniors and people with disabilities. Each electric bus is equipped with an ADA-approved wheelchair lift for vehicles with low to zero (0) emissions; this project allowed us to replace three existing gas-powered buses with fully electric buses of the same passenger capacity to provide door-to-door paratransit rides to seniors and people with disabilities. All three vehicles are equipped with an ADA approved wheelchair lift. The buses range from 85 to 110-mile charge range. This project also provided the infrastructure required to charge on site in the DAC area of Watsonville where our operations facility is located, and the charging equipment was installed. This project will continue to serve Lift Line clients, which has grown from 900 to currently about 1,254 low-income residents per year. The infrastructure included purchasing one more dual output electric vehicle charging station (EVCS).

B. Project Overview

- a) Through this project Lift Line put into operation the first paratransit electric vehicles (EVs) in Santa Cruz County. EV breakdown as follows:
 - Three (3) ZEIS (Zero Emissions Utility Shuttles) assemble by Phoenix Motorcars
 - Two (2) level II – Electric Vehicle (EV) Charging Stations
 - Vehicles Specifications: Three (3) Ford E-450
 - Driving Range (UDDS): up to 110 miles
 - Average Road Range: up to 85 miles
 - Regenerative Braking: Dual-Mode regenerative braking system
 - Top Speed: 60 mph
 - Certification: California Air Resource Board (CARB)
- b) In fiscal year 2023-2024, EVs provided 4,873 one-way medical rides to Watsonville seniors and individuals with disabilities. These rides included transportation to medical

offices, dental clinics, pharmacies, and dialysis centers. The breakdown of rides is as follows: 4,058 rides were provided to elderly passengers over 60, 279 rides were for wheelchair and lift users, and 536 rides were for individuals under 60 with medical disabilities.

- c) During the fiscal year 2023-2024, EVs provided 2,413 rides for Meals on Wheels, transporting senior and disabled residents in Watsonville. The rides were destined for the Santa Cruz Meals on Wheels Watsonville dining site at 114 Fifth Street, Watsonville, California. These rides can be broken down as follows: 1,955 rides were given to elderly passengers over the age of 60, none were for wheelchair or lift users, and 458 rides were provided for individuals under the age of 60 with medical disabilities.
- d) EVs provided 1,817 rides to the Elderday specialized senior day care facility. Out of these rides, 1,617 were given to elderly passengers over the age of 60, 182 were for wheelchair and lift users, and 18 were for individuals under 60 with medical disabilities.
- e) Total days used: 194 days.

Vehicle 800 was used for 73 days, Vehicle 801 was used for 81 days, and Vehicle 803 was used for 40 days.

Total rides provided: 4,873 one-way rides

Vehicle 800 provided 1,580 one-way rides, Vehicle 801 provided 2,283 one-way rides, and Vehicle 803 provided 1,010 one-way rides.

C. Project Funding

Total Cost of Project: \$ 670,103.07

CARB Contribution: \$ 515,819.00

Matching funds through Community Bridges/Lift Line: \$ 154,284.07

D. List of Tasks and Project Milestone

- Execute Grant Agreement: Community Bridges Contract with CARB was executed on March 15, 2018, and fully on May 19, 2018.
- Obtaining all permits: Community Bridges started the process of obtaining permits on June 18, 2018, and obtained all required permits by September 19, 2018.

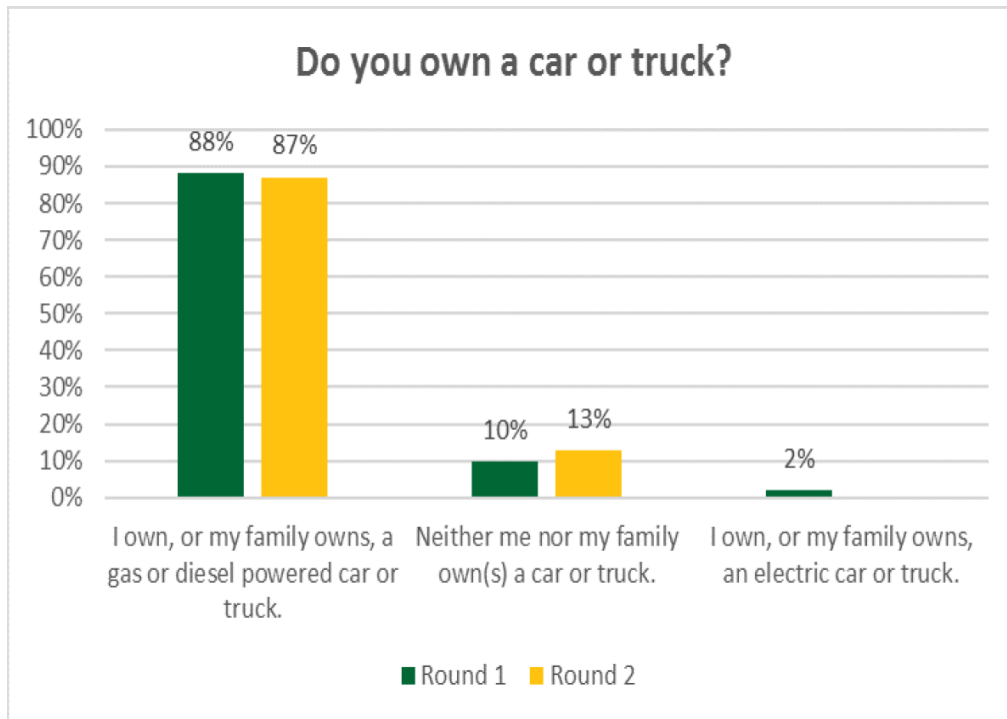
- Installation of electrical vehicle supply equipment: Community Bridges started installation of electric vehicle supply equipment on June 18, 2018, and the task was completed September 19, 2018.
- Purchase of Vehicles: Acquisition of two 16- passenger paratransit EV buses started on May 18, 2018, by obtaining quotes, and final purchase from Phoenix Motorcars was made by June 28, 2019.
- Completing EV insurance requirements: Community Bridges started the process of insurance for the new EVs in February 2019. All vehicles were insured by June 28, 2019.
- Outreach onboarding signage was placed in all vehicles and posted in all sites: Community Bridges (CB) continually provided awareness to our clients about fleet electrification, new DAC services benefits ,and EV resources. CB posted ongoing documentation on EVs and CB sites, starting on December 2018 through September 4, 2020.
- Bilingual outreach: To increase awareness and ridership in the DAC and low-income communities, Community Bridges created a bilingual door hanger which was distributed door to door starting in December 2018 through April 10, 2019.
- Outreach press release and news coverage: Community Bridges released a Ride/Drive Electric press event on April 26, 2019. Community Officials and press had an opportunity to test drive fully electric shuttle buses and showcase other EV solutions.
- DAC Outreach and EV incentive flyers: Community Bridges made flyers available to clients and staff to become more knowledgeable and teach them how to gain access to EV incentives. This task started December 2018 and was ongoing until September 4, 2020.
- Creating bilingual/bicultural outreach content: Community Bridges created and provided bilingual content to promote expanded services and distributed to low-income service programs to increase awareness on the EV program and increase ridership; this task started in December 2018 and was completed on September 4, 2020.
- Online outreach promoting new services for DAC residents: Community Bridges partnered with Regeneration, a local climate action organization with a mission

to help communities adapt to climate change. Community Bridges partnered with Regeneration in February 2019 and completed the task at the Regeneration resource fair on May 19, 2019.

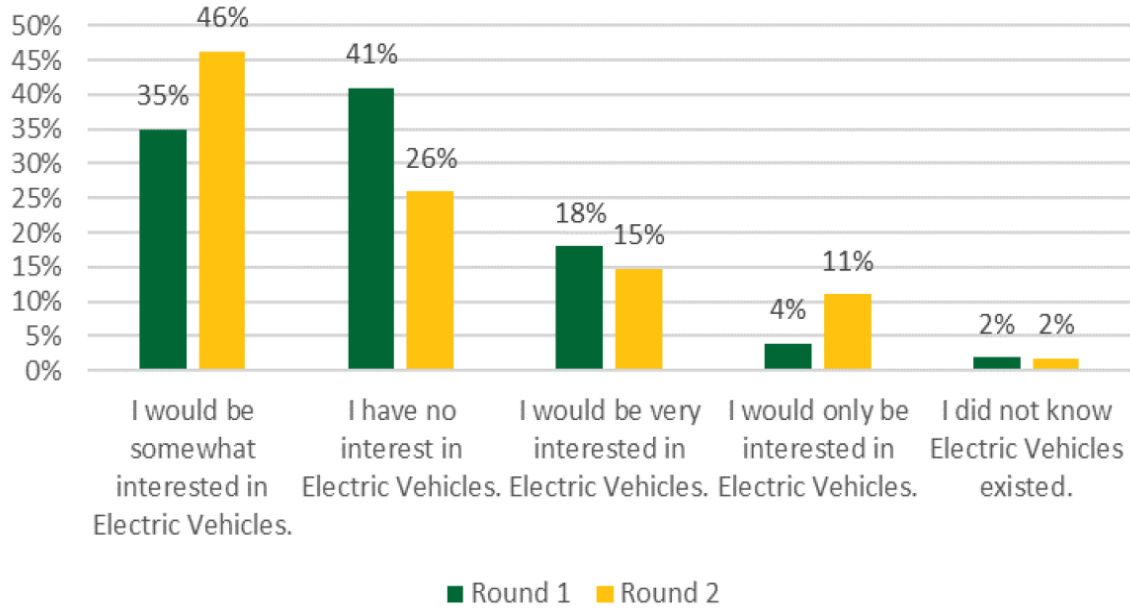
- Outreach presentation to City Council: On February 26, 2019, Community Bridges made a presentation to the Watsonville City Council on our new electric vehicle shuttle program.
- Community Bridges informed staff of new DAC EV shuttle services and other EV incentives that can be utilized by themselves, clients, and community. The task started in November 2019 and was completed on September 24, 2020.
- Community Bridges trained staff and drivers on talking points about EV incentives, benefits, and referrals to inform clients; this task started March 2018 and was ongoing through October 31, 2020.
- Community Bridges provides a new DAC Lift Line service orientation to all ten Community Bridges programs. Clients were informed of new DAC services, benefits, and EV resources on an ongoing basis; this task began in March 2019 and was completed October 31, 2020.
- Community Bridges Human resources department includes information on DAC EV shuttle services and EV incentives in new employee orientation materials. All employees are informed about DAC EV service at time of hire and the task began August 1, 2018, and is still ongoing.
- Execute Grant Agreement: Community Bridges Contract with CARB was expanded with Amendment 3 on April 16, 2021. The amendment started July 31, 2021, and ended July 31, 2024.
- Purchase of Vehicle: Acquisition of 1 more 16- passenger paratransit EV bus started on April 2021 by obtaining quote. The final purchase from Phoenix Motorcars was made by May 2021.
- The vehicle was delivered on January 31, 2023. There was a major parts delay; therefore, our order was put on hold.
- February 2023 Community Bridges Lift Line had three (3) Electric vehicles on the road during our daily operations and worked with local partners to continue to meet client transportation needs. This service is still ongoing.

E. Results of Participants Survey Pre EV-Transportation Implantation (Round 1) and Post EV Implantation (Round 2). Surveys done door to door in person.

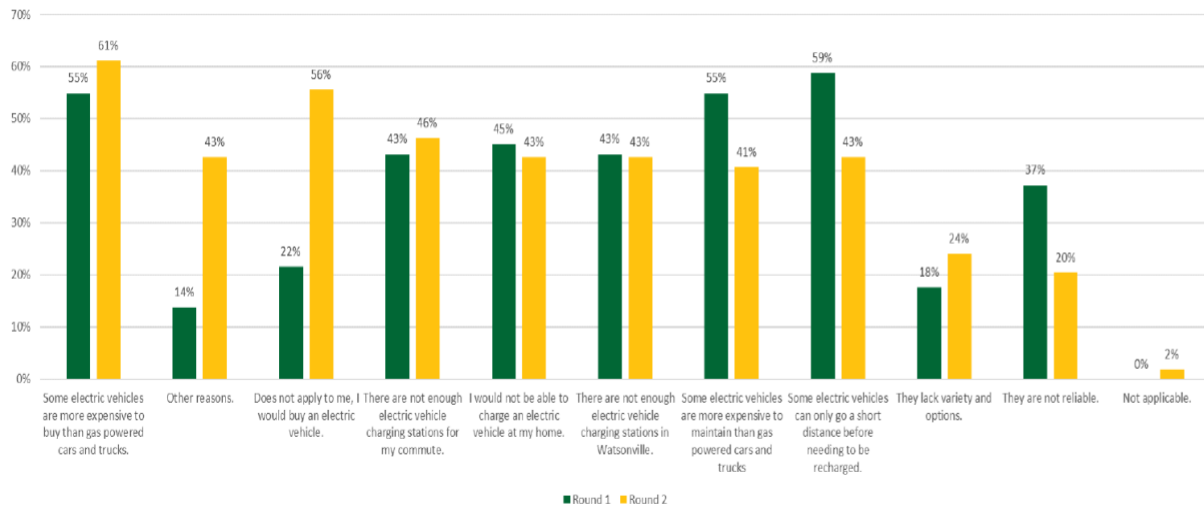
- **Analysis**



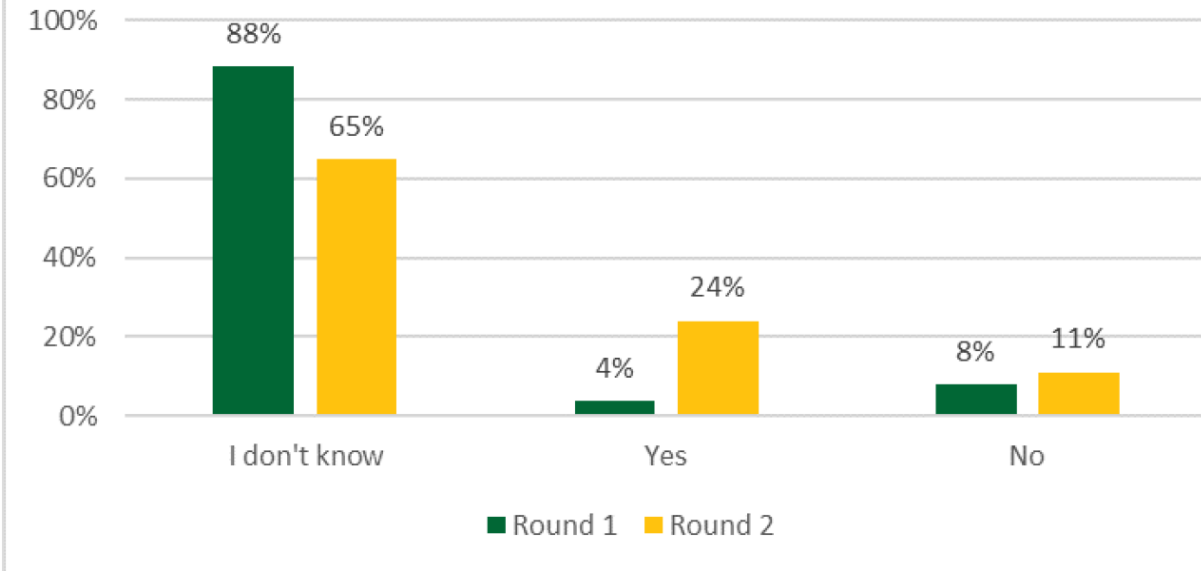
If I was in the market for a new or used car:



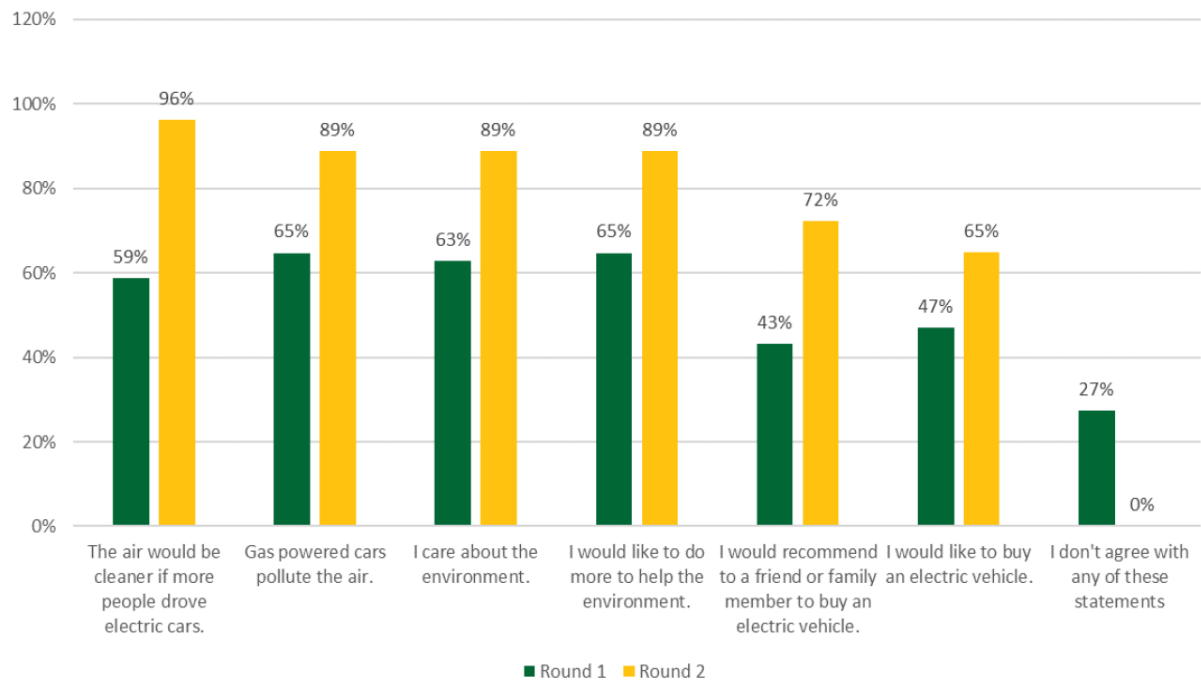
I would NOT buy an electric car or truck because:



Does Community Bridges' Lift Line program have electric vehicles?



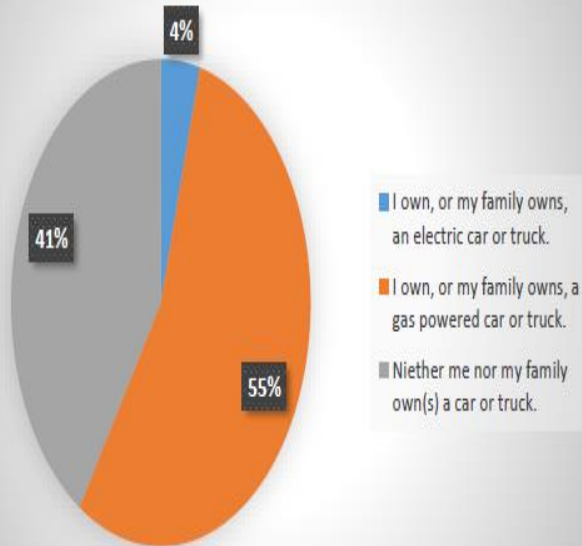
Check all statements that you agree with



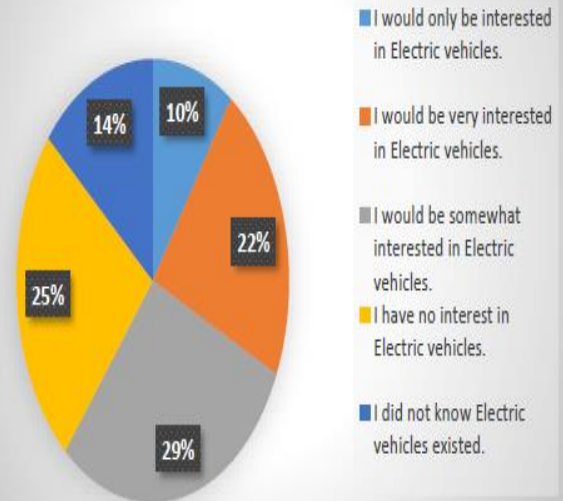
- Lift Line Annual Client Survey (mailed survey)



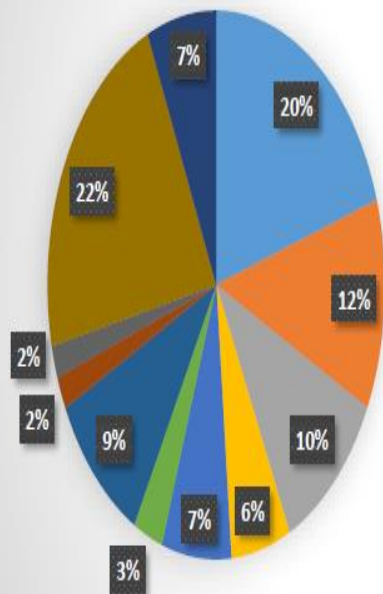
Do you own a car or truck?



If I was in the market for a new or used car:



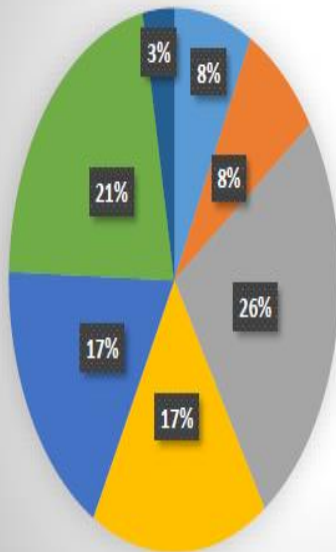
I would Not buy an electric vehicle or truck because:



- This does not apply to me; I would buy an electric vehicle.
- Some electric vehicles are more expensive to buy than gas powered cars and trucks.
- Some electric vehicles are more expensive to maintain than gas powered cars and trucks.
- Some electric vehicles can only go a short distance before needing to be recharged.
- There are not enough electric vehicle charging stations in Watsonville.
- There are not enough electric vehicle charging stations for my commute.
- I would not be able to charge an electric vehicle at my home.
- They are not reliable.
- They lack variety and options.
- Not applicable.
- Other.

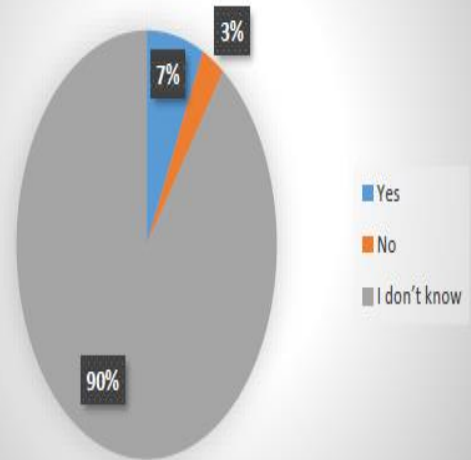


Check all statements that you agree with:

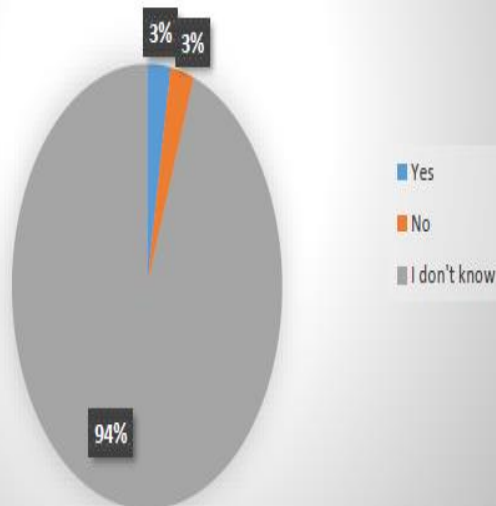


- I would like to buy an electric vehicle.
- I would recommend to a friend or family member to buy an electric vehicle.
- I care about the environment.
- I would like to do more to help the environment.
- Gas powered cars pollute the air.
- The air would be cleaner if more people drove electric cars.
- I don't agree with any of these statements.

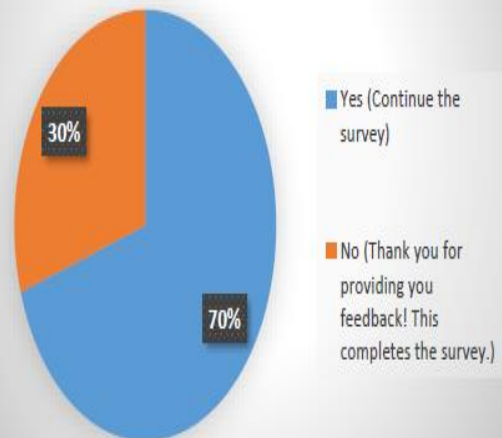
Does Community Bridges' Lift Line program have electric vehicles?



Does Community Bridges' Lift Line provide charging stations that anyone can use to charge their electric vehicles in the downtown Watsonville area?

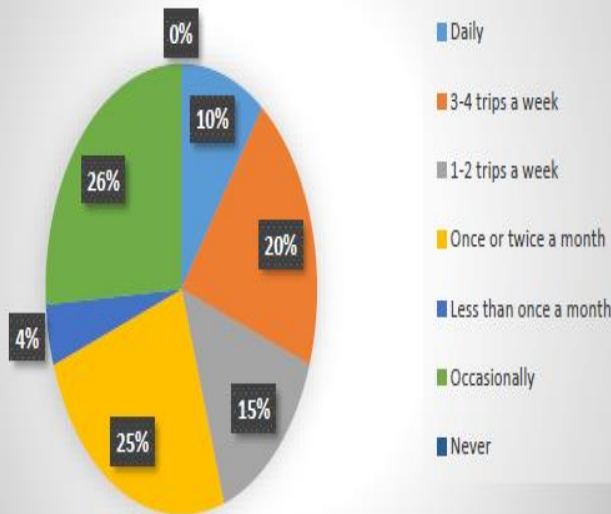


Have you ever used the free medical shuttle service provided by Lift Line for qualifying individuals?

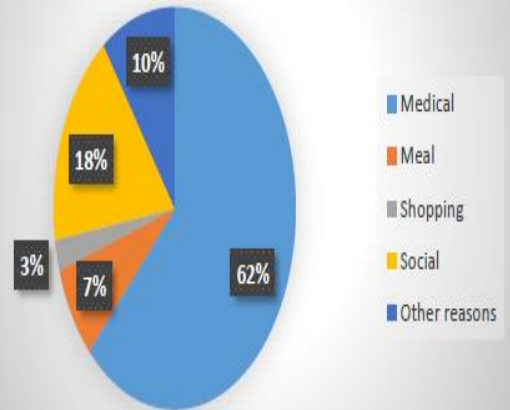




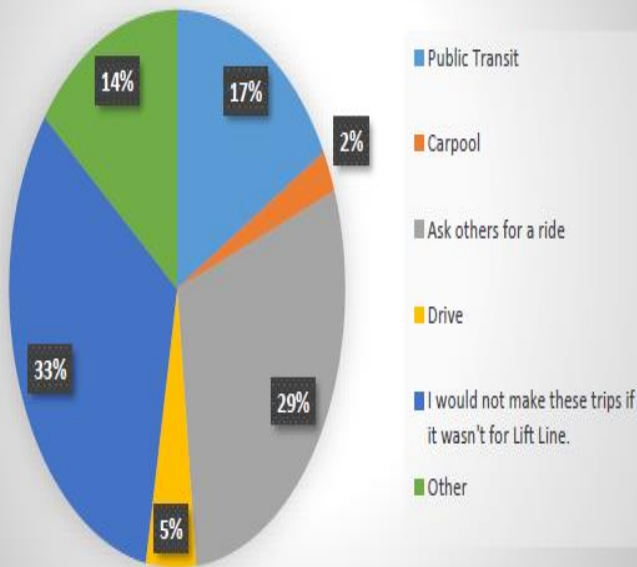
I use Lift Line:



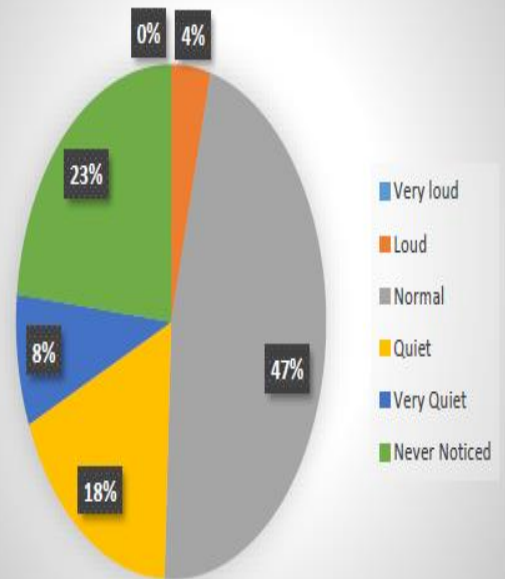
Destinations/Reasons for the Lift Line trips:



What is your most common alternate mode of travel

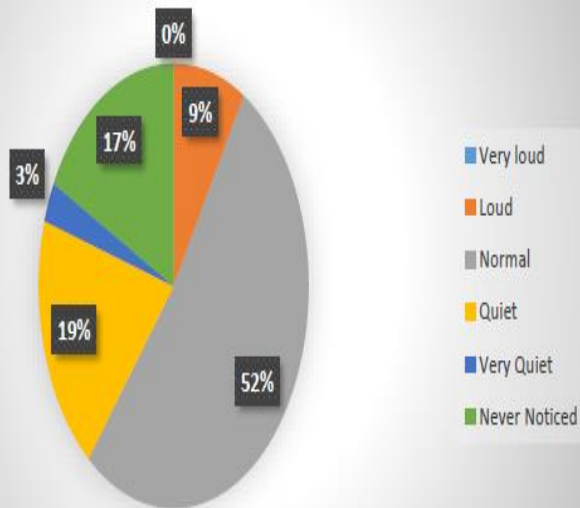


The noise from outside the Lift Line van is:

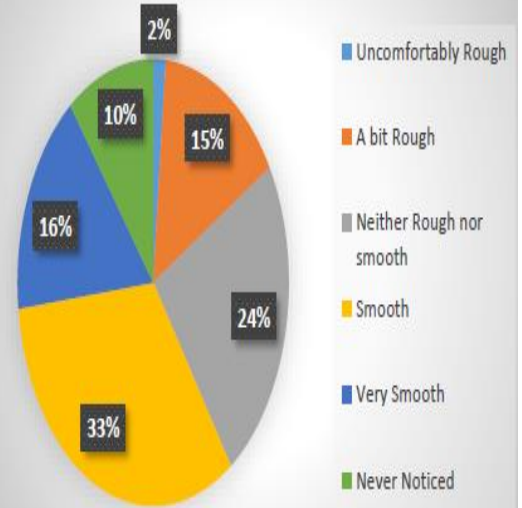




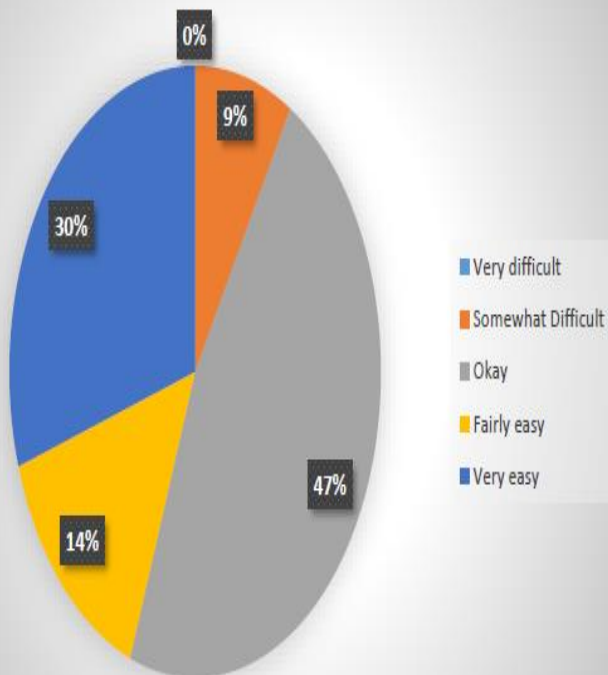
The noise inside the Lift Line van is:



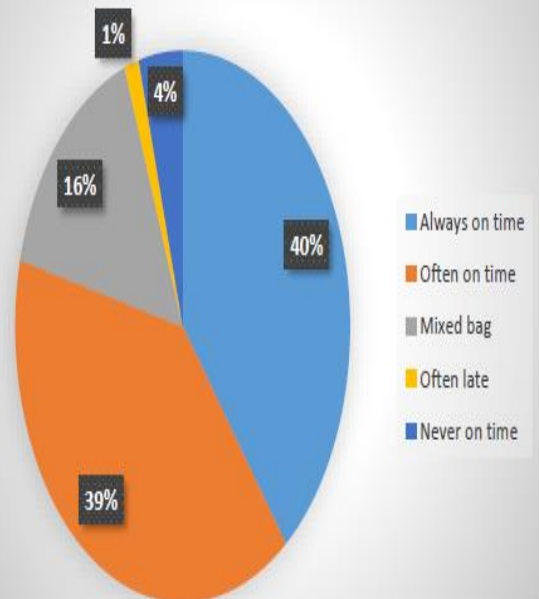
The ride is:



Getting in and out of the van is:



How often do Lift Line drivers arrive within the 30 minute window?



F. Electricity and fuel usage information of project vehicles

- Total miles driven during project life: 35,085 (Vehicle 800 drove 18,477 miles, Vehicle 801 drove 14,082 miles, and Vehicle 803 drove 2,526).
- Accumulated kilo watts per hour (KWH) total 1,284,111 kwh (Vehicle 800 had 676,258 kwh, vehicle 801 had 515,401 kwh, and vehicle 803 had 92,451 kwh).
- Total Gasoline Gallons save 4,556 gallons of gasoline compared with gas-powered vehicles.
- Total Savings” Community bridges saved a total of \$19,363 on fuel based on a \$4.25 per gallon price against \$0.35 per KWH.

G. Estimated GHG emission reduction achieved

By operating three Electric shuttle vehicles and accumulating 20,701 kwh, Community Bridges reduced greenhouse emissions equivalent to 9.6 passenger vehicles driven for one year. Or 103,554 Miles driven by an average passenger vehicle. The project also saved the equivalent CO2 emissions from 4,556 gallons of gasoline consumed, 3,977 gallons of diesel consumed, 44,622 pounds of coal burned, 5.3 homes' energy use for a year, 93.7 barrels of oil consumed. It also is equivalent to Carbon sequestered by 669 tree seedlings grown for 10 years, .26 acres of US forest in one year, and 47.3 acres of US forest preserved from conversion to cropland in one year.

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

H. Issues, Concerns, and problems Lessons learned:

- While EV technology is still being developed, current EVs are maxed out on their daily range, limiting routes and services.

- Vehicles had problems with electrical equipment, AC, and lift. There isn't always enough power to run AC and operate vehicle lift. Vehicles did not always meet the expected miles per charge, and in at least one instance, a driver needed to return to charging station on middle of their route to charge the vehicle.
- Vehicle 801 had electrical failures and shut down during runs. The vehicle was hauled back to the manufacture where repairs were made under warranty.
- Vehicle 803 encountered charging issues, making it inoperable due to incomplete charging. Upon inspection, it was found that one of the onboard chargers had a hardware failure, which interrupted the charging session. Phoenix Motors resolved the issue, and vehicle 803 was returned to Lift Line headquarters and is now back in operation.
- After Vehicle 803 was repaired for charging issues, it was found that it could not be charged at the Lift Line headquarters charging station because the station's power supply was insufficient to fully charge the vehicle.
- For future EV purchases, Lift Line will avoid getting a CHAdeMO charger and will go more for CCS2 since charges are available.

I. Accounting reports, including expenditure and income information and supporting documentation

Community Bridges

REAB7- Agency Roll-up

6/30/18

| | | <u>Actual Period to Date</u> | |
|------------------------------|---------------------------------------|--------------------------------|---|
| | | <u>07/01/2017 - 06/30/2024</u> | |
| Revenue | | | |
| 300-0052.00-4260-001-1 | CARB - California Air Resources Board | \$493,103.06 | +\$22,715.94 request = \$515,819.00 |
| Total Revenue | | (\$493,103.06) | |
| Expenses | | - | |
| ***_****_**-5001-***-1 | Salaries and Wages | \$29,840.55 | |
| ***_****_**-5102-***-1 | SUI | \$135.81 | |
| ***_****_**-5103-***-1 | Workers Compensation | \$1,139.43 | |
| ***_****_**-5104-***-1 | Health Insurance | \$1,933.12 | |
| ***_****_**-5105-***-1 | Employer's FICA | \$2,259.70 | |
| ***_****_**-5106-***-1 | Retirement | \$45.99 | |
| 300-0052.00-5210-001-1 | Contracted Services | \$11,633.23 | |
| 300-0052.00-5211-001-1 | Professional Services | \$2,999.85 | |
| 300-0052.00-5215-001-1 | Publicity/Media | \$569.52 | |
| 300-0052.00-5323-001-1 | Conference Travel | \$10.50 | |
| 300-0052.00-5553-001-1 | Program Supplies | \$586.55 | |
| 300-0052.00-5561-001-1 | Postage | \$1,265.65 | |
| 300-0052.00-5586-001-1 | Printing/Copying | \$1,296.92 | |
| 300-0052.00-5633-001-1 | Equipment Maintenance/Repair | \$1,802.11 | |
| ***_****_**-6103-***-1 | 300 Equip To/Fr Fixed Assets | \$455,150.04 | |
| 300-0052.00-7001-001-1 | Grantee Allocated | \$5,150.03 | |
| Total Expenses | | (\$515,819.00) | |
| BEGINNING NET ASSETS | | \$0.00 | |
| NET SURPLUS/(DEFICIT) | | (\$22,715.94) | request from dibursement #7 balances out to 0. |
| ENDING NET ASSETS | | (\$22,715.94) | |