



# ELECTRIC VEHICLE INFRASTRUCTURE EVALUATION: EVMATCH AND EV ACCELERATOR PILOTS

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# Executive Summary

## Program Summary

Silicon Valley Clean Energy (SVCE) is a public, not-for-profit, community-owned agency that provides clean energy in Santa Clara County. As a part of their commitment to community engagement, SVCE initiated the Innovation Onramp program which provides grant funding to support innovation aimed at achieving deep decarbonization in Santa Clara and beyond.

Through this program, SVCE funded two pilot programs implemented by EVmatch and Ecology Action that involved the installation and management of EV chargers at seven multi-family apartment buildings throughout Santa Clara County.

## Participant Information

In total, seven apartment complexes participated in the program. EVmatch pilot participants received up to two EV chargers for free. Ecology Action pilot participants received between four to eight chargers per site. Four of the participating buildings were market-rate buildings, while the remaining three were affordable housing buildings.

To qualify, apartment buildings had to be in SVCE service territory, have on-site parking, and if participating in the EVmatch pilot, be willing to make chargers open to the public for some amount of time.

## Data Collection

Evaluators conducted interviews and surveys with relevant stakeholders to gather feedback about how the pilot programs were developed and implemented, what motivated property managers to enroll their buildings, and the impact the EV chargers had on residents' awareness of and interest in electric vehicles.

- 2 implementer interviews
- 6 apartment manager interviews
- 70 resident survey responses

## Key Findings

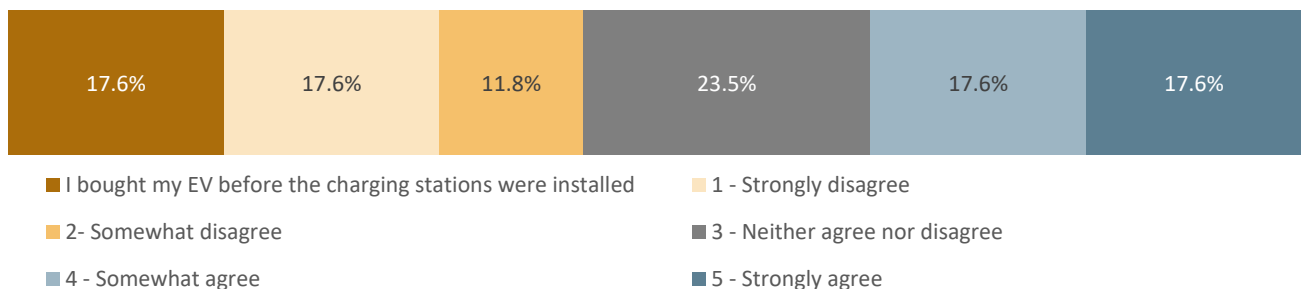
Apartment manager respondents believe EV chargers are beneficial to their community.

While residents recognize the benefits of EVs, they are still hesitant to purchase EVs.

Having chargers where they live encouraged some respondents to purchase EVs.

Primary barriers to installing EV chargers at apartment buildings are cost and infrastructure.

**Charging Stations at Building Contributed to EV Purchase (n=17)**



# 1 OVERVIEW

As part of Silicon Valley Clean Energy’s (SVCE) efforts to assess the impacts of its electric vehicle infrastructure (EVI) efforts on electric vehicle adoption, emissions, and the local economy, ADM Associates (henceforth referred to as the “Evaluators”) conducted an evaluation of the EVmatch and Ecology Action EV Accelerator Pilots that took place in 2020-2021. This evaluation included interviews with program implementers of each pilot, interviews with participating buildings’ property managers, as well as surveys of participating buildings’ existing residents.

These data collection efforts gathered feedback about how the pilot programs were developed and implemented, what motivated property managers to enroll their buildings, and the impact the EV chargers had on residents’ awareness of and interest in electric vehicles.

SVCE provided contact information for EVmatch and Ecology Action pilot implementers, participating buildings’ property managers, and existing residents for the interview and survey efforts. The following analysis reviews data based on program implementer interviews, property manager interviews, and resident survey responses. Despite some differences in the design and implementation strategy of the two pilots, both pilots provided accessible EV charging stations to multi-family apartment buildings, in service of the ultimate goal of encouraging EV adoption among community residents. Evaluators call out specific details and nuances of each pilot and their subsequent data when applicable.

Table 1-1: Participating Apartment Buildings

Pilot	Buildings (N)	Building Type
EVmatch	4	1 affordable housing 3 market rate
Ecology Action: EV Accelerator	3	2 affordable housing 1 market rate

# 2 PILOT IMPLEMENTER INTERVIEWS

## 2.1 EVmatch

Evaluators interviewed one representative from EVmatch about the SVCE-EVmatch pilot program. The interviewed representative has been with EVmatch since 2018 and manages much of the company’s sales, marketing, and project management initiatives. Although the interviewed representative was not involved in grant application process for the pilot program, they noted that the company was interested in working with SVCE in order to promote and test their new multi-family apartment building focused EV charging station technology.

The EVmatch representative explained that EVmatch is an EV charging station software platform that hosts EV charging stations across the county. EVmatch works with commercial and residential property management companies to install charging stations for use by residents and/or the general public, based on clients’ needs and desires. The EVmatch representative explained that EVmatch differentiates itself from other EV charging software in that it includes a “groups” feature. This “groups” feature allows

charging station owners to create different rules for different charging station user types. For example, property managers can create varying operating hours and fee structures for apartment complex residents (group 1) versus the general public (group 2).

EVmatch enrolled four apartment buildings into its SVCE pilot; one building was affordable housing and three buildings were market rate. When recruiting buildings, EVmatch emphasized that participating buildings would receive the charging stations for free in addition to two years of free EVmatch software technical support. Participating buildings were required to make their charger stations available to the general public for at least some portion of time; the EVmatch representative noted that they believed all four participants made the chargers accessible to the public 24/7. Each building received two chargers and both charging stations were installed in shared parking spots. In general, the installation process ran smoothly; the most commonly cited issues included internet connectivity problems and parking lot trenching. EVmatch provided apartment managers with marketing materials to promote the chargers to residents and the public. To use the chargers, drivers download an app and create a profile; building residents were provided personalized access codes to differentiate them as residents and thus place them in the “building group” in case apartment managers chose to use the groups feature for restricting access.

Building managers were able to add usage fees to the chargers as a means of garnering a profit for their building, but these fees could not exceed 10-30% of the cost of electricity. The EVmatch representative could not speak to the amount of usage fees apartment managers did or did not choose to employ.

The EVmatch representative explained that working with SVCE has been a rewarding and helpful experience for their company. This pilot helped EVmatch identify non-financial barriers to EV charger adoption for multi-family apartment buildings. Key barriers included finding reliable Wi-Fi access for the chargers (needed for operation) and identifying the primary point of contact for each apartment building (regular staff turnover and/or staff work variable hours). The EVmatch representative emphasized that *“without the funding, these properties likely would not have chargers”* and encouraged SVCE and other entities to continue to offer grants in the future to make EV chargers more accessible.

## 2.2 Ecology Action: EV Accelerator

Evaluators interviewed two representatives from Ecology Action about the EV Accelerator pilot program. The interviewed representatives had long tenures with Ecology Action and were responsible for the grant application and management of the EV Accelerator pilot. Ecology Action was interested in working with SVCE on the EV Accelerator pilot as means of testing theories and approaches to multi-family apartment building EV charging; specifically, they were interested in identifying barriers and challenges, as well as best practices to installing and managing EV chargers at apartment buildings. Ecology Action representatives explained that their company is concerned about EV market equity, noting that charging stations companies typically gravitate towards commercial buildings and single-family homes, and thus the infrastructure necessary for apartment residents to adopt EVs is lagging behind.

*“How do we solve the puzzle of making sure people who don’t have access, have access. We want to decarbonize in an equitable way as much as possible.”*

Ecology Action enrolled three apartment buildings into the EV Accelerator pilot: two affordable housing buildings and one market rate building. To qualify, buildings need to have 60amps of panel capacity available to allow for the EV chargers. When enrolling buildings in the pilot, Ecology Action focused on building trusting relationships with the property managers and highlighted their role as a neutral third-party facilitator, rather than a vendor or sales company. Each building received between four and eight chargers through the EV Accelerator pilot. By law, affordable housing buildings cannot make a profit, and thus the cost of a charging session at these buildings was the cost of electricity plus cellular network fees. According to Ecology Action representatives, the one participating market rate building charged a monthly fee for the EV parking spot for residents with EVs.

The Ecology Action representatives explained that funding from SVCE for the EV Accelerator pilot allowed them to test out EV charging stations and gather enough initial data to win a larger grant aimed at scaling the program across the state.<sup>1</sup> The largest challenge facing the pilot was its limited duration (1-2 years); programs like EV Accelerator require long-term funding and assistance, to allow for constant outreach and education as well as technical support and assistance.

### 3 APARTMENT BUILDING MANAGER INTERVIEWS

Pilot implementers provided contact information for the seven participating buildings' property managers. Evaluators conducted interviews with apartment managers from six of the seven buildings; the remaining property manager was contacted four times via phone and email and never responded. Four of the interviewees represented buildings from the EVmatch pilot and two of the interviewees represented buildings from the EV Accelerator pilot. Responses from both pilots were combined due to pilot similarities.

Interview respondents included two community/property managers, one assistant manager, one acquisition manager, and one regional manager; they had varying levels of tenure at the buildings they managed ranging from 10-months to 18 years. Three of the respondents live in the buildings they manage and/or are onsite every day, while the other three respondents visit the building about once a week.

Represented buildings have between 25-160 units. All residents have access to parking on-site either with an assigned spot (n=5) or open parking (n=1). The majority of residents across all six buildings own a car and rely on it for their primary form of transportation.

#### 3.1 Pilot Engagement

Three of the respondents were involved in the decision to enroll their buildings in the pilot programs. These respondents indicated their management companies were interested in the pilot because they wanted to provide an additional amenity to their residents; they acknowledged the convenience of having EV chargers at home and recognized the growing popularity of EVs in their region. The other

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<sup>1</sup> Since the pilot Ecology Action won a \$3 million CEC REACH 1.0 grant and are now implementors for PG&E's MUD EVI DI program (\$25M).

interviewees who were not involved in the decision-making process echoed these responses as the likely reasons their companies were interested in enrolling, citing convenience, environment, and forward-thinking as the benefits to installing EV chargers at apartment complexes.

Respondents noted that the primary concerns associated with installing chargers at their buildings included charger cost (n=4), having the panel capacity to support the chargers (n=2), and convincing residents to switch to EVs and therefore use the chargers (n=1). Respondents who cited cost noted that it was unlikely their companies would have installed chargers if not for the incentives provided by the pilots:

*“Without the money that helped fund [the chargers] this project would never happen.”* –Property Manager

### 3.2 EV Charger Use

In general, respondents indicated the charger installation went smoothly. Respondents confirmed that their buildings each received at least two chargers; three of the buildings had existing EV chargers prior to receiving the additional chargers through the pilot. All of the buildings installed the new chargers in open parking spots; one building requires monthly rentals of the parking spots and the charger is open to residents only. Across the five buildings where the chargers are open to the public, three buildings allow for 24-hour public access of the chargers, while the remaining building restricts public usage to daytime hours (6:00AM-8:00PM) (Table 3-1).

Table 3-1: Buildings' EV Charger Rules (n=6)

	n
Had existing EV chargers on site	3
EV chargers open to public	5
24-hour public access to EV chargers	3
First come/first serve charger access	5

Respondents indicated that they worked with EVmatch and Ecology Action to promote the chargers to residents. Outreach tactics included flyers, newsletters, emails, and resident meetings. Respondents noted that chargers seem most popular after work hours. Respondents could not speak to whether or not more residents have purchased EVs since the installation of the chargers, however one respondent observed increased use of the chargers overtime.

Five of the responding building representatives explained that charger users only pay for the electricity used and charger service fees; only one building has included an additional charge in the form of parking spot monthly rent. Currently, apartment managers do not use the group setting on the chargers and thus fees are the same for resident and public charger users.

### 3.3 Opinions of EV Chargers

In general, respondents provided positive feedback about the EV chargers, EVmatch, and Ecology Action. All but one respondent indicated they would highly recommend working with EVmatch and Ecology Action to install EV chargers at apartment buildings. In their praise, they emphasized EVmatch

and Ecology Action’s attentiveness, speedy responses, and willingness to help troubleshoot problems as they arose. Specific praise for the EV chargers themselves centered on EV’s status as the future of automobiles, chargers as a convenient amenity for residents, and the overall benefit to the environment. Despite the mostly positive feelings towards the pilots and the chargers, respondents indicated that the layout of a building’s parking lot can impact where chargers can be installed (n=2) and chargers can sometimes have connectivity issues (n=3). Respondents also emphasized the cost of EV chargers and acknowledge that chargers may not be affordable without external grants or incentives. The respondent who indicated they would not recommend the program to other apartment owners and managers explained that the installation process took longer than expected and parking lot trenching was costly.

## 4 APARTMENT RESIDENTS SURVEY RESULTS

SVCE provided the evaluators contact information for 857 residents across seven buildings that participated in the pilot programs. Among these contacts, 789 individuals had an email address and 850 had a phone number. 405 contacts were from EVmatch buildings, and 452 contacts were from EV Accelerator buildings. Evaluators contacted respondents up to four times by email and up to three times by phone. Respondents received a \$10 gift card as a thank you for their time.

In total, 70 participants responded to the survey for a response rate of 8.2%. Thirty-four respondents lived in an EVmatch building and 36 respondents lived in an EV Accelerator building.

### 4.1 Demographics

Table 4-1 outlines demographic data, self-reported by respondents. About half of respondents live with 1-2 other people (55.0%, n=38) and are 35-44 years old (47.1%, n=33). Less than one-third of respondents identified as Hispanic or Latino (27.1%, n=19) and the most popular language spoken at home was English (42.3%, n=30) followed by Spanish (16.2%, n=11). Respondents’ annual household income varied considerably.

Table 4-1: Demographics

	%	n
<b>People in household (n=70)</b>		
1 person	22.1%	15
2 people	32.9%	23
3 people	20.6%	14
4 people	14.7%	10
5 people	5.9%	4
6 people	1.5%	1
Prefer not to answer	4.4%	3
<b>Age (n=70)</b>		
18-24	2.9%	2
25-34	28.6%	20
35-44	47.1%	33
45-54	8.8%	6

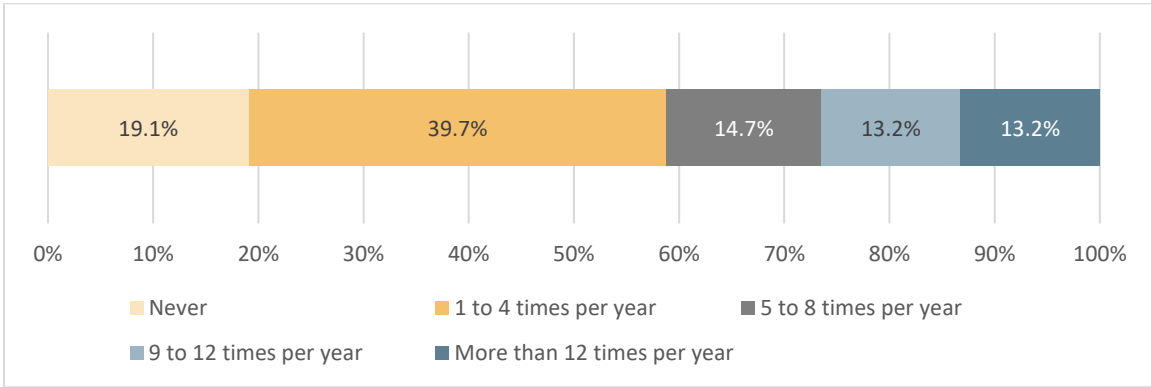
55-64	8.8%	6
65+	1.5%	1
Prefer not to answer	2.9%	2
<b>Language(s) spoken at home (n=70)</b>		
Only English is spoken	42.3%	30
Spanish	16.2%	11
Hindi	13.2%	9
Vietnamese	2.9%	2
Arabic	2.9%	2
Korean	1.5%	1
Japanese	1.5%	1
Russian	1.5%	1
Other	8.8%	6
Prefer not to answer	10.1%	7
<b>Hispanic/Latino origin (n=70)</b>		
Yes	27.1%	19
No	62.9%	44
Prefer not to answer	10.0%	7
<b>Race/Ethnicity (n=57)</b>		
White / Caucasian	19.3%	11
Indian	21.1%	12
Black / African American	8.8%	5
Vietnamese	5.3%	3
Native American / Alaskan Native	3.5%	2
Other Pacific Islander	3.5%	2
Chinese	3.5%	2
Japanese	1.8%	1
Korean	1.8%	1
Other	8.8%	5
Prefer not to answer	22.8%	13
<b>Annual Household Income (n=70)</b>		
Less than \$40,000	5.7%	4
Between \$40,000 and \$64,999	18.6%	13
Between \$65,000 and \$94,999	7.1%	5
Between \$95,000 and \$149,999	18.6%	13
Between \$150,000 and \$200,000	5.7%	4
Over \$200,000	14.3%	10
I don't know	1.4%	1
Prefer not to answer	28.6%	20

## 4.2 Transportation Habits

Almost all respondents own a car and use it for regular transportation (95.7%, n=67). Three-quarters of respondents drive less than 25 miles per workday (76.5%, n=52) and more than half of respondents drive less than 25 miles on days they do not work (61.8%, n=42). In general, respondents do not drive long distances, with 58.8% (n=40) indicating they drive more than 100 miles per day less than five times per year (Figure 1).



Figure 1: Number of 100+ mile driving days (n=68)

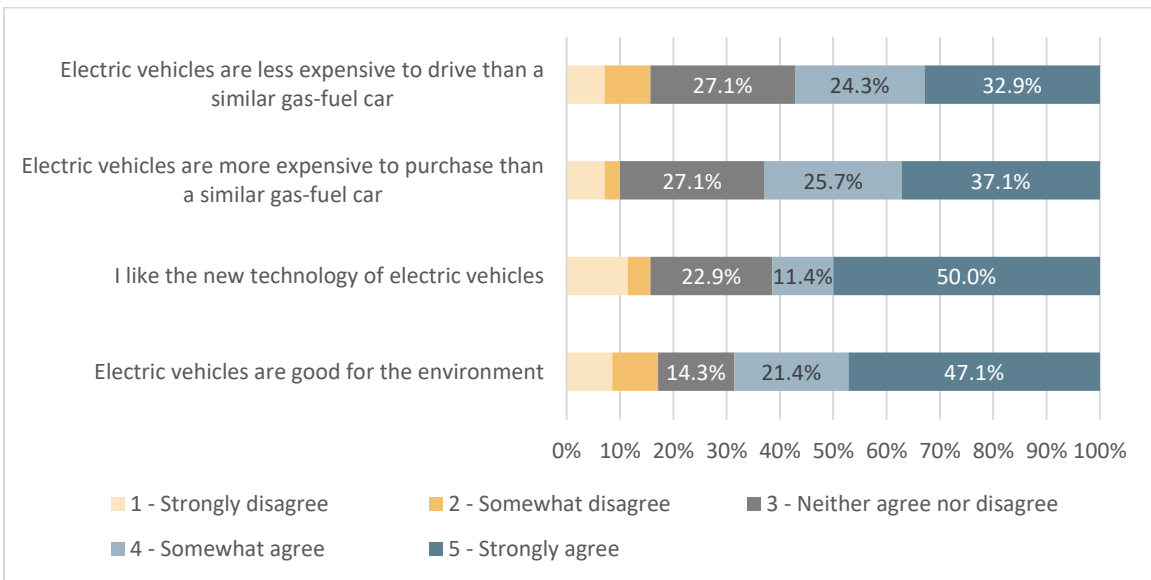


All but one respondent parks their car in a parking lot or garage at home with the vast majority of respondents indicating they have a designated parking spot at their building (92.5%, n=62). Most respondents (85.3%, n=58) go to work or school on a regular basis; among these respondents, the majority have access to parking through work or school (89.3%, n=50). More than half of the respondents who have access to parking through work or school indicated their workplace or school has an EV charging station (64.0%, n=32).

### 4.3 Electric Vehicle Awareness

In general, respondents agreed that EVs are less expensive to drive than similar gas-fuel cars and are better for the environment; they also believed EVs are more expensive to purchase than a gas-fuel car (Figure 2).

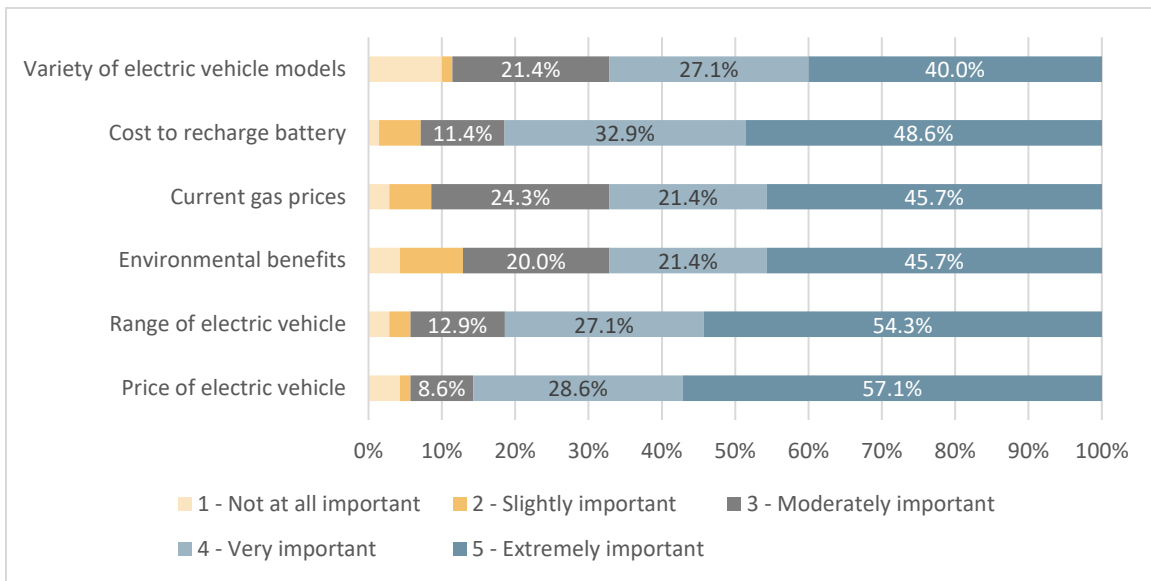
Figure 2: Attitudes towards EVs (n=70)



When asked what factors are important in the decision to purchase an EV, more respondents indicated the price of the vehicle, the range of the vehicle, and the cost to recharge the battery were important to them

than the number of respondents who indicated the environmental benefits, gas prices, and variety of EVs were important (Figure 3).

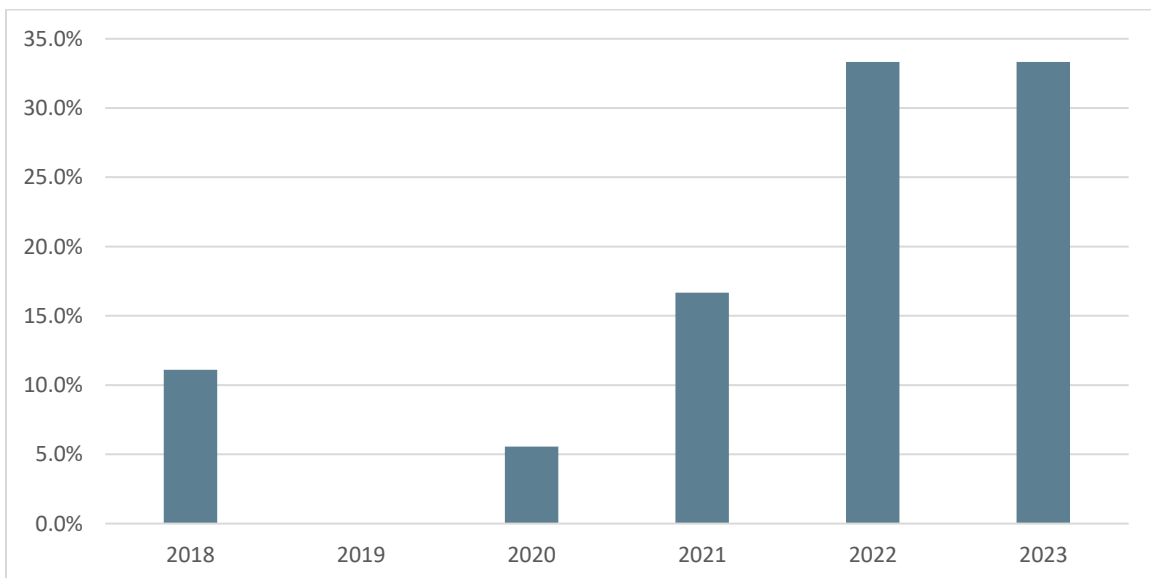
Figure 3: Factors Related to EV Purchase Decisions (n=70)



#### 4.3.1 EV OWNERS

One-quarter of respondents (26.5%, n=18) own an electric vehicle; all of these respondents indicated their EV is their primary vehicle and daily driver. Most EV owners have a battery electric vehicle (72.2%, n=13), with a few owning a hybrid electric vehicle (27.8%, n=5). Two-thirds (66.7%, n=12) of responding EV owners bought their EV in the past 1.5 years (January 2022- July 2023); the longest tenured EV owners bought their vehicles in 2018 (11.1%, n=2) (Figure 4).

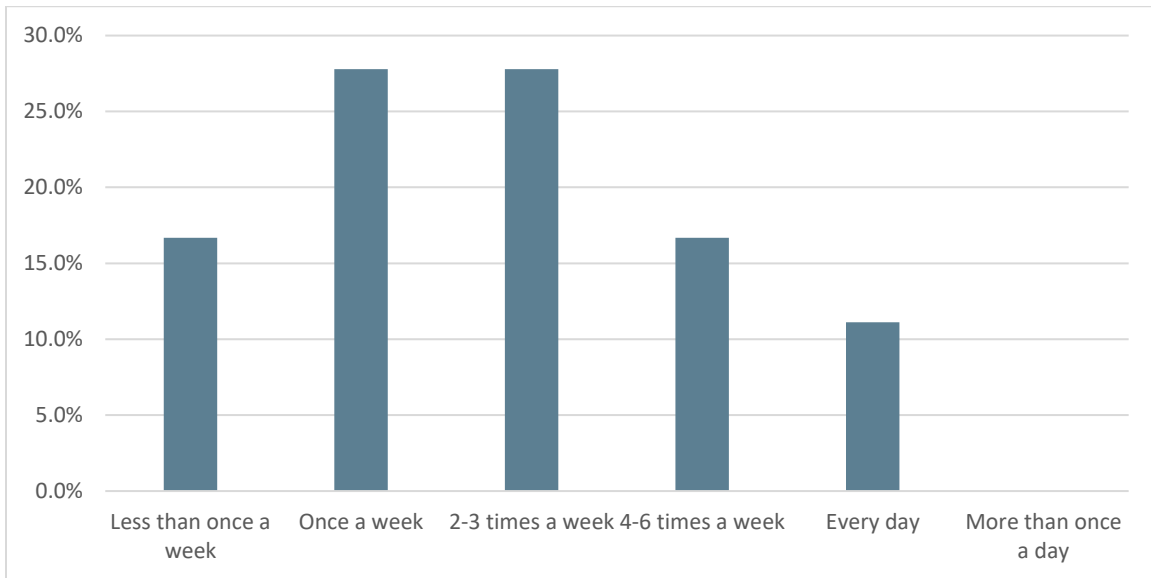
Figure 4: EV Purchase Year (n=18)\*



\*EV chargers from the program were installed at the apartment buildings between 2020-2021

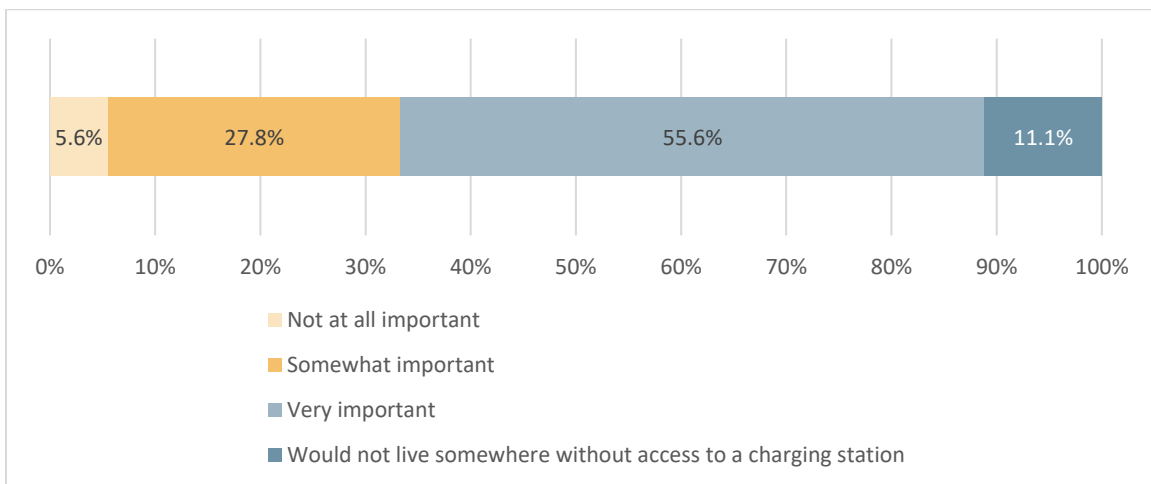
About half of respondents charge their EV one to three times per week (55.6%, n=10) (Figure 5). Respondents use a relatively equal mix of charging stations at home (50.0%, n=9), work or school (50.0%, n=9), and other public charging stations (44.4%, n=8).

Figure 5: EV Charge Frequency (n=18)



More than half of the responding EV owners noted that having access to a charging station where they live is very important to them (Figure 6).

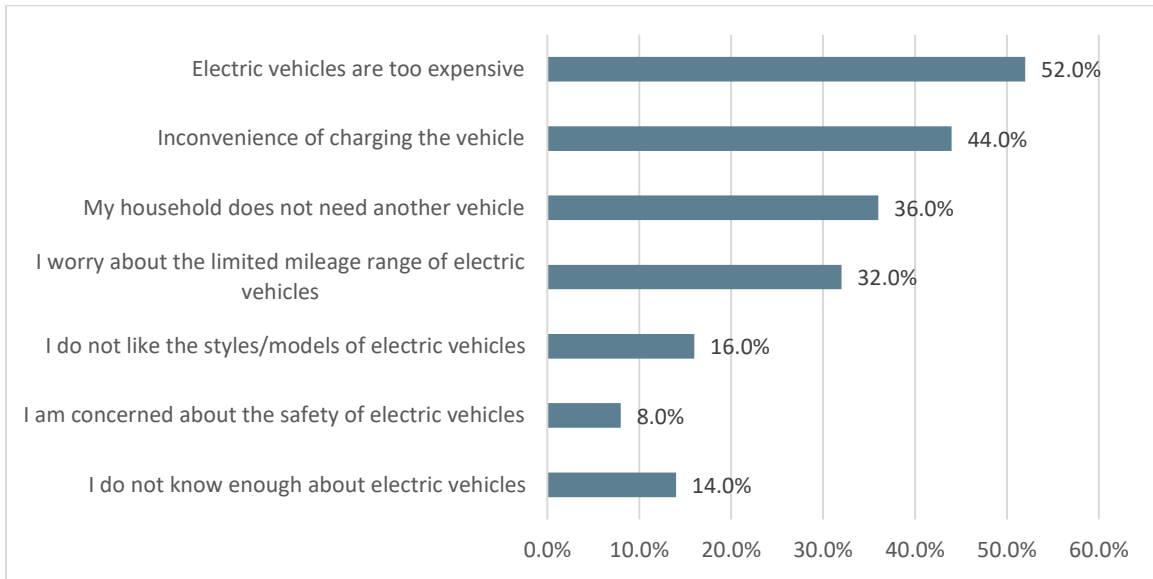
Figure 6: Importance of EV Charging Access at Home (n=18)



#### 4.3.2 NON-EV OWNERS

Among the 50 respondents who do not own an EV, two-thirds have considered purchasing an EV (68.0%, n=34). These respondents are interested in EVs for their potential to save money on gas (88.2%, n=30), their new technology (73.5%, n=25), and their environmental benefits (61.8%, n=21). Despite their curiosity, the most popular reasons for why these respondents have not yet purchased an EV include the expense, inconvenience of charging, and not needing another vehicle (Figure 7).

Figure 7: Reasons for Not Purchasing an EV (n=50)



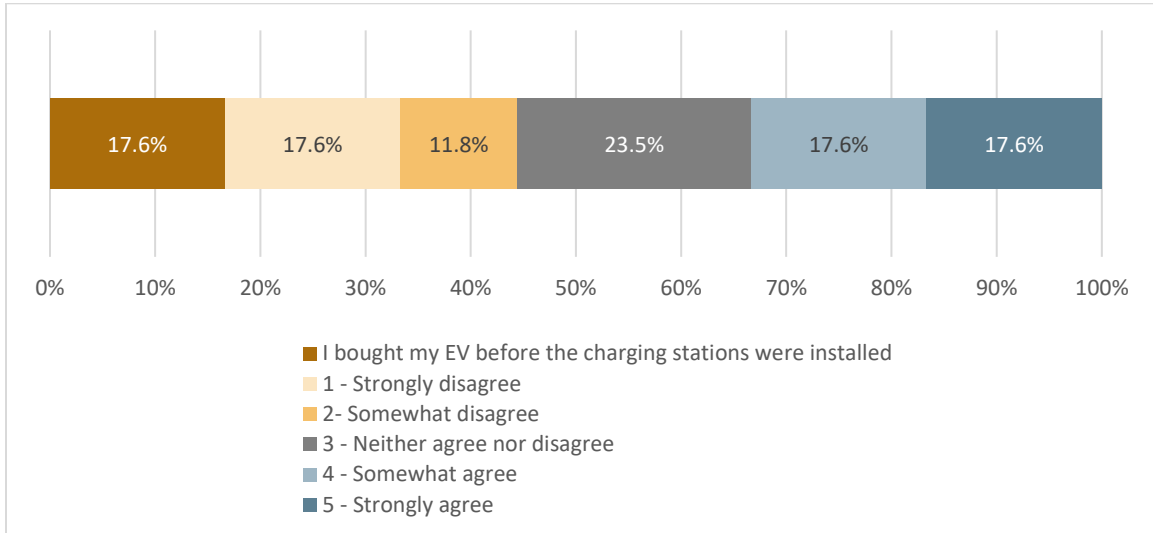
Significance tests revealed that there are no statistically significant demographic differences between EV owners and non-EV owners.

#### 4.4 Cross Pilot Findings

Across the two pilots, more than half of respondents knew about the EV chargers at their building (70.0%, n=49). Most respondents learned about the EV chargers either by seeing them in the parking lot (50.0%, n=25) or through a communication from their property manager (40.8%, n=20).

Eighteen respondents own an EV; one of these respondents was not aware of the EV chargers at their building and therefore not asked follow-up questions about the chargers. Six (35.3%) of the 17 EV owners who were aware of the chargers at their building indicated that having a charger at their building contributed to their decision to buy an EV (Figure 8). Significance tests revealed that there are no statistically significant demographic differences between the EV owners who did and did not indicate that having a charger at their building contributed to their decision to buy an EV.

Figure 8: Charging Stations at Building Contributed to EV Purchase (n=17)



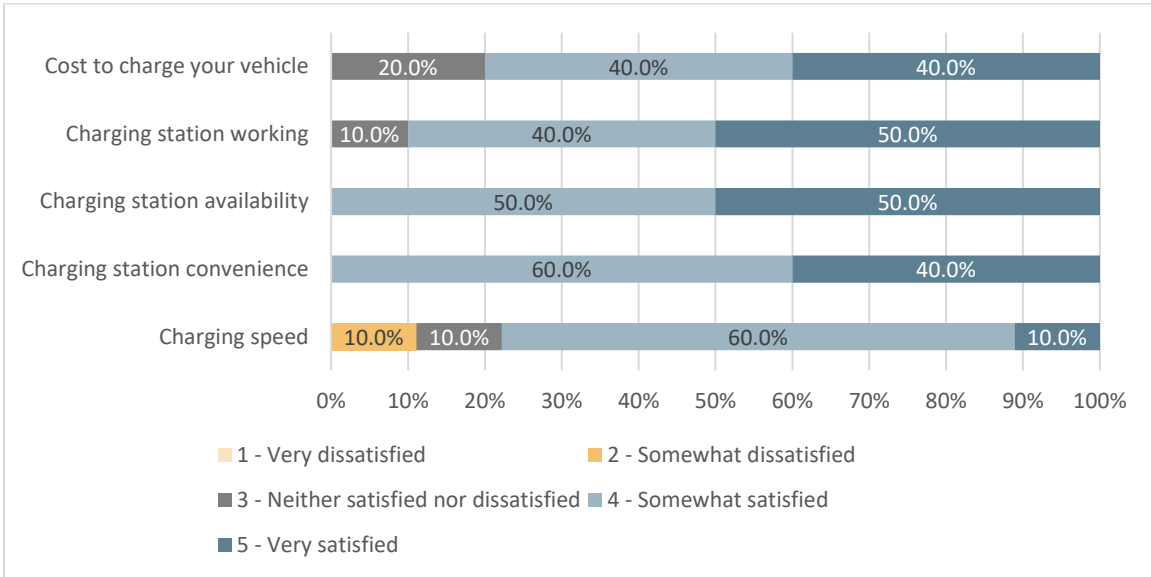
Ten of the EV owners had used the chargers at their building (58.8%) About an equal number of respondents use the chargers on weekdays (n=9) as weekends (n=8); the most popular time for charging was overnight on weekends between 12:00-7:00 AM (Table 4-2).

Table 4-2: Time of Charger Use (n=10)

Time	%	n
Weekday mornings between 7:00AM and 11:00AM	30.0%	3
Weekday afternoons between 11:00AM and 4:00PM	10.0%	1
Weekday afternoons between 4:00PM and 7:00PM	10.0%	1
Weekday evenings between 7:00PM and 12:00AM	20.0%	2
Weekdays overnight between 12:00AM and 7:00AM	30.0%	3
Weekend mornings between 7:00AM and 11:00AM	10.0%	1
Weekend afternoons between 11:00AM and 4:00PM	20.0%	2
Weekend afternoons between 4:00PM and 7:00PM	0.0%	0
Weekend evenings between 7:00PM and 12:00AM	20.0%	2
Weekends overnight between 12:00AM and 7:00AM	40.0%	4

In general, the respondents were satisfied with the speed, convenience, availability, functionality, and cost of the chargers (Figure 9).

Figure 9: Charger Satisfaction (n=10)

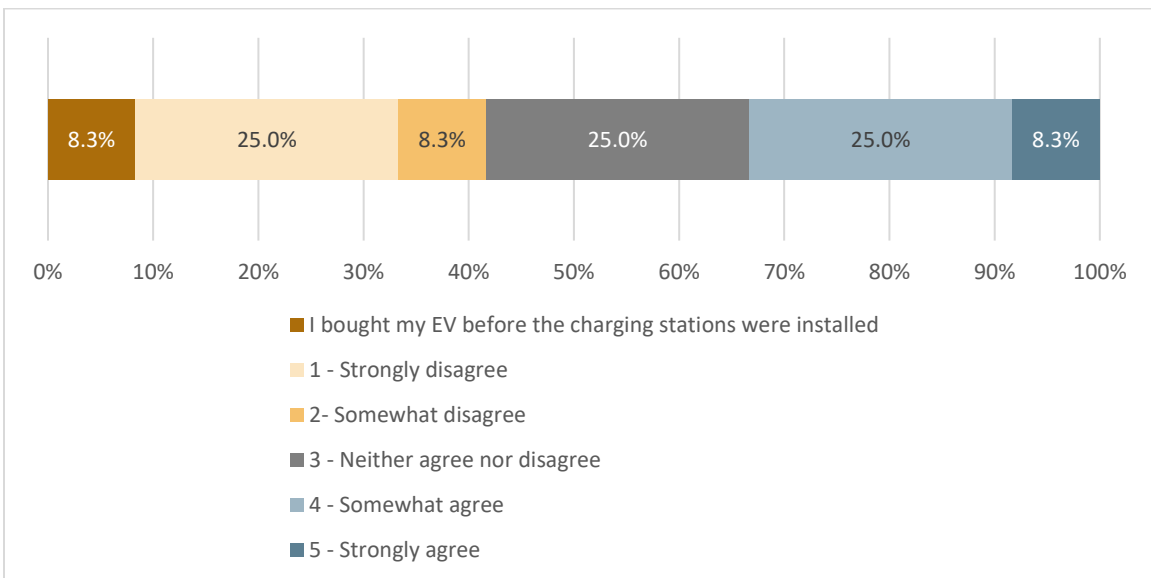


## 4.5 EVmatch

Thirty-four of the survey respondents live in buildings that received an EV charger through EVmatch. The majority of these respondents were aware of the EV chargers at their building (88.2%, n=30); most learned about the chargers because they saw them in the parking lot (n=22).

Twelve of the 18 EV owners live in an EVmatch building. All 12 of these EV owners charge their vehicles at work or public charging station once to a few times per month. Four (35.2%) of the EV owners at EVmatch buildings noted that having the EV charger at their building contributed to their decision to buy an EV (Figure 10).

Figure 10: Charging Stations at Building Contributed to EV Purchase (n=12)



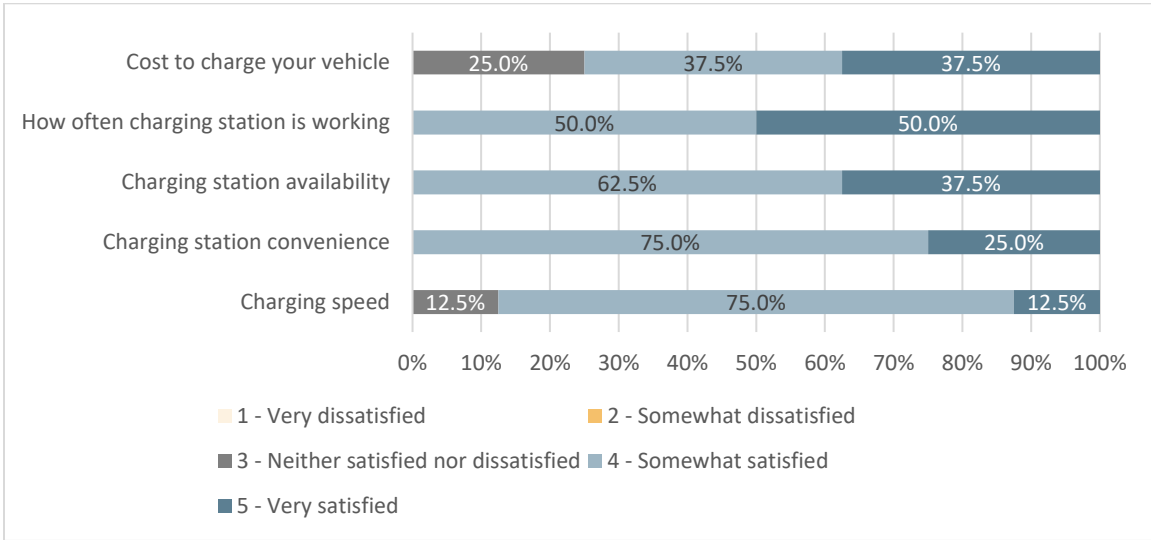
Eight of the EV owners at EVmatch buildings have used chargers at their building (66.7%) and all but one of these respondents noted that the EVmatch software was easy to use (87.5%, n=7). The one respondent who found the software difficult to use explained that they do not like the time-based reservation system as they do not always know how long their car needs to charge for. About an equal number of respondents use the chargers on weekdays (n=7) as weekends (n=6); the most popular time for charging was weekday mornings between 7:00-11:00 AM (Table 4-3). Respondents' charging sessions typically last up to five hours (75.0%, n=6) and five respondents noted they sometimes have to wait to use the chargers (62.5%).

Table 4-3: Time of Charger Use (n=8)

Time	%	n
Weekday mornings between 7:00AM and 11:00AM	37.5%	3
Weekday afternoons between 11:00AM and 4:00PM	12.5%	1
Weekday afternoons between 4:00PM and 7:00PM	12.5%	1
Weekday evenings between 7:00PM and 12:00AM	12.5%	1
Weekdays overnight between 12:00AM and 7:00AM	12.5%	1
Weekend mornings between 7:00AM and 11:00AM	12.5%	1
Weekend afternoons between 11:00AM and 4:00PM	25.0%	2
Weekend afternoons between 4:00PM and 7:00PM	0.0%	0
Weekend evenings between 7:00PM and 12:00AM	12.5%	1
Weekends overnight between 12:00AM and 7:00AM	25.0%	2

In general, the respondents were satisfied with the speed, convenience, availability, functionality, and cost of the chargers (Figure 11).

Figure 11: Charger Satisfaction (n=8)



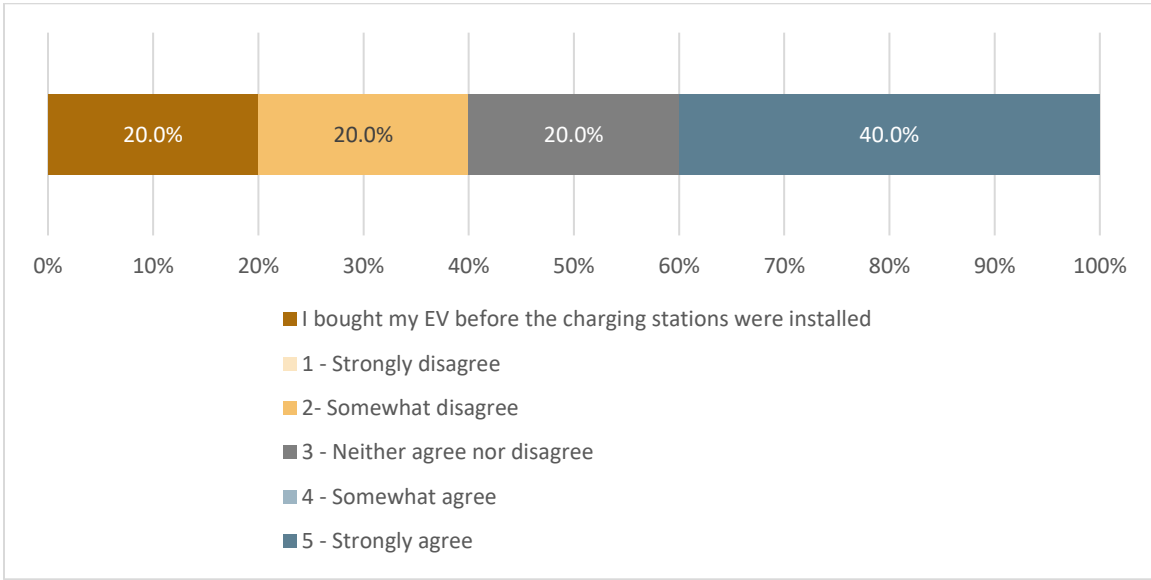
## 4.6 EV Accelerator (Ecology Action)

Thirty-six of the survey respondents live in buildings that received an EV charger through Ecology Action’s EV Accelerator pilot. A little more than half of these respondents were aware of the EV chargers at their building (54.3%, n=19); most learned about the chargers through an email or other communication from apartment management (n=15).

Six of the 17 EV owners live in a building that participated in the EV Accelerator pilot; one of these respondents was not aware of the EV chargers at their building and therefore not asked follow-up questions about the chargers. Some of the five responding EV owners never (n=3) charge their vehicles at work or public charging station, while the remaining two charge at these locations a few times per month (n=1) or once a week (n=1). Two of the EV owners at EV Accelerator buildings noted that having the EV charger at their building contributed to their decision to buy an EV (Figure 12).



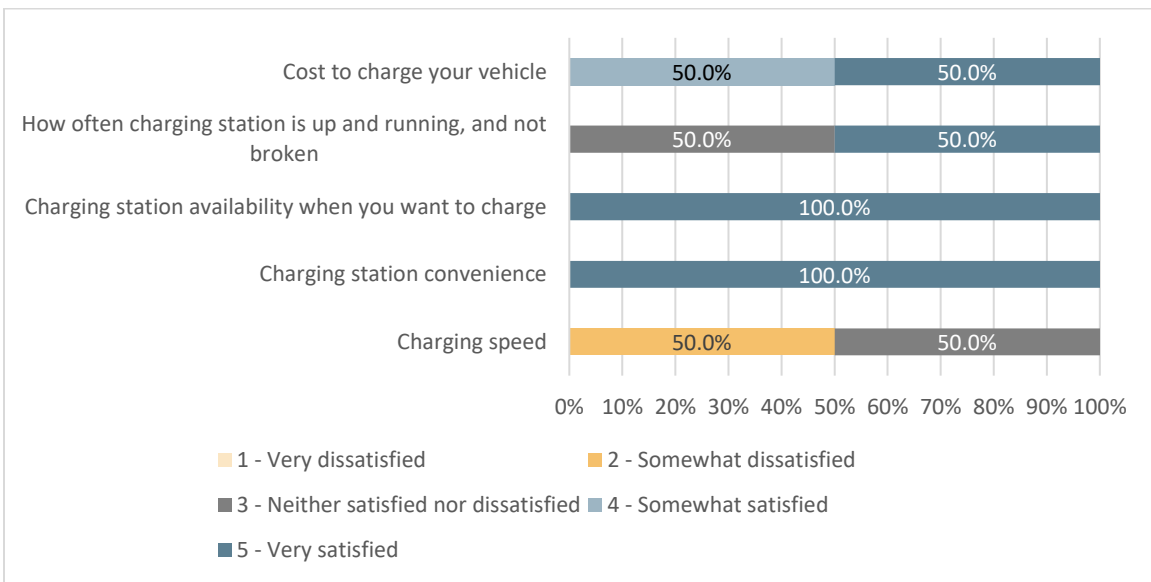
Figure 12: Charging Stations at Building Contributed to EV Purchase (n=5)



Two of the EV owners at EV Accelerator buildings have used chargers at their building (40%). Both respondents use the chargers overnight on weekdays and weekends between 12:00-7:00 AM and one of the respondents use the chargers on weekday and weekend evenings between 7:00PM-12:00AM. Respondents' charging sessions typically last 6-8 hours (n=1) or more than 11 hours (n=1), and the two respondents never have to wait to use the chargers.

Both respondents were satisfied with the convenience, availability, and cost of the chargers (Figure 13). one respondent was somewhat dissatisfied with the chargers' charging speed; this respondent lived at a building with a level 1 charger. The two EV owners at EV Accelerator buildings who used the chargers had not owned an EV prior to the installation of the chargers at the building.

Figure 13: Charger Satisfaction (n=2)



## 5 FINDINGS AND RECOMMENDATIONS

The following section summarizes the primary findings and recommendations ascertained from the EVmatch and Ecology Action interviews, apartment manager interviews, and apartment resident surveys.

### 5.1 Findings

- 1) Finding 1: Apartment manager respondents believe EV chargers are beneficial to their community.** Apartment building staff were attracted to the pilots for the opportunity to provide an additional amenity to their residents and promote EVs' positive environmental benefits.
- 2) Finding 2: While residents recognize the benefits of EVs, they are still hesitant to purchase EVs.** Apartment residents acknowledge EVs' impact on the environment but worry about the cost to purchase them. Across non-EV owners specifically, EVs' expense and inconvenience of charging them make them hesitant to purchase an EV.
- 3) Finding 3: Residents are aware of new chargers.** Almost three-quarters of the survey respondents were aware of the EV chargers at their buildings (70.0%, n=49) and more than half of EV owners have used the chargers at their building at least once (58.8%, n=10).
- 4) Finding 4: Having chargers where they live encouraged some respondents to purchase EVs.** Six of the EV-owning respondents (35.2%) indicated that having a charger at their building contributed to their decision to buy an EV.
- 5) Finding 5: Primary barriers to installing EV chargers are cost and infrastructure.** All responding apartment managers noted they likely would not have been able to install the chargers without the assistance from EVmatch and Ecology Action. Some respondents noted that when recommending EV chargers to other apartment complexes, they would emphasize the need for internet connectivity, electrical wiring, and panel capacity.

### 5.2 Recommendations

- 1) Recommendation 1: Provide individual-level incentives, in addition to apartment building incentives, to encourage EV adoption.** Although some survey respondents expressed interest in purchasing an EV, cost was often a prohibitive factor. SVCE might work with other electric providers and government agencies to promote existing incentives for the purchase of EVs, as well as provide additional incentives to individuals who may not qualify for existing incentives. SVCE may look to existing used vehicle rebate programs, such as the one offered by Peninsula Clean Energy, to assess the feasibility/efficacy of such a program in their community.
- 2) Recommendation 2: Conduct additional evaluations to identify what factors are most important to individuals when purchasing EVs.** In service of SVCE's ultimate goal of encouraging EV adoption, more data is needed on what factors encourage or prevent residents from purchasing an EV. These efforts may include broader-scale market research surveys that ask respondents to rank various factors in multiple scenarios.
- 3) Recommendation #3: Assist multifamily management companies with development of marketing collateral to promote EV charging as an amenity.** Although most survey respondents were aware of the EV chargers in their building, additional promotional materials and an

emphasis of the chargers as an amenity may draw increased attention and interest in the chargers and subsequently EVs.

- 4) **Recommendation #4: Conduct a post-pilot analysis of the commercial meter consumption to address whether the participant can garner extra financial benefit from migrating to the BEV1 or BEV2 rate plans.**
- 5) **Recommendation #5 (EVmatch specific): Work with EVmatch to explore more comprehensive use of the charging software platform.** Based on the interview with the EVmatch representative, the software has the capability to create charger groups with varying fee structures. An ROI analysis based on charger usage by building residents and public users separately may help develop a business case for public charging, which in turn can make the installation of EVmatch chargers more appealing to building managers and owners.