# Appendix A: Community EV Adoption Survey Summary

# Introduction

The City of Bellevue conducted a Community EV Adoption Survey in February 2024 to better understand community member interest in and knowledge of electric vehicles and other forms of electric mobility. In addition to the electronic survey, survey respondents could indicate where they want public EV charging using an interactive map. The <a href="Public EV Charging Map">Public EV Charging Map</a> allows participants to drop a pin for a suggested charging site, allowing them to choose a workplace, multifamily building, or preferred public space where EV charging is desired. This tool will support Bellevue in identifying where EV charging may be deployed to best benefit the community, especially in providing public EV charging to those who do not have access to charging at home, and to areas of the city where charging is less likely to be driven by market forces. Bellevue will utilize recorded responses both from the survey and interactive map to inform future EV and e-mobility programs.

A total of 147 submissions were recorded for the interactive map and 247 responses were received for the Community EV Adoption Survey. The <u>Electric Vehicle Roadmap</u> site, where both the survey and map are accessible, reached over one thousand visits and 869 participants visited at least one page. The number of responses to individual questions varied as survey participants were able to answer as many, or as few, questions as they chose, with some answers allowing a single response or as many responses that apply.

# Survey Key Findings

The Community EV Adoption Survey aimed to gauge the status of electric vehicle (EV) adoption within the Bellevue community and identify factors influencing adoption and usage patterns through a selection of thematic queries. Additionally, the survey collected responses from individuals across various housing situations and levels of familiarity with plug-in EVs. Key findings include the following:

## 1. Housing Situation (240 Responses):

Many respondents (72%) reside in single-family or homes that they own, with a smaller portion (12%) renting. Additionally, 18% of respondents live in multifamily housing, primarily owning as well.

## 2. Knowledge of Plug-in EVs (240 Responses):

While most respondents (87%) expressed familiarity with plug-in EVs, a notable portion indicated limited knowledge or awareness (13%).

## 3. Ability to Charge EV at Home (240 Responses):

Roughly half of the respondents (51%) can charge an EV at home, while the rest do not, are unsure, or specify other reasons.

#### 4. Awareness of Incentives (335 Responses):

Most respondents (84%) are aware of state and federal incentives aimed at reducing the cost of

purchasing EVs or charging equipment.

#### 5. Interest in Other Electric Mobility (303 Responses):

A significant portion of respondents (59%) expressed interest in alternative electric mobility options such as EV car share, e-bikes, and e-scooters.

#### 6. Usage of Electric Mobility (275 Responses):

Respondents indicated they would primarily use the above electric mobility options for leisure activities (39%), appointments (32%), and commuting (25%).

# 7. Ownership of BEV/PHEV (240 Responses):

Nearly half (48%) of respondents already own or lease either a Battery Electric Vehicle (BEV) or Plugin Hybrid Electric Vehicle (PHEV).

#### 8. Charging Locations and Preferences (115 Responses):

Home charging is the most common (87%) location for charging EVs among 48% of respondents who answered this question. Out of these participants, most (85%) identified their preferred charging location based on convenience. If they had the chance to access all locations identified (home, workplace, public location), a majority (80%) said their first choice is at-home charging.

#### 9. Current EV Usage (312 Responses):

For current EV drivers, the top three uses identified for their EV are running errands (35%), personal travel (27%), and commuting (23%).

#### 10. Factors in Purchasing an EV (115 Responses):

Environmental concerns (61%) and cost savings (13%) were identified as primary factors influencing the decision to purchase an EV.

## 11. Consideration of Purchasing an EV (148 Responses):

Many respondents are considering purchasing or leasing an EV in the future (59%), with environmental impact (38%) and cost savings (20%) being important factors considered for potential purchase. However, a notable portion (41%) is not considering purchasing or leasing an EV.

#### 12. Anticipated Use of an EV (312 Responses):

Respondents considering purchasing an EV anticipate using it primarily for running errands (35%), commuting (22%), and long-range travel (18%).

#### 13. Barriers to Purchasing an EV (335 Responses):

Access to reliable charging infrastructure (22%), affordability (17%), and range concerns (19%) were identified as the most significant barriers to EV adoption. In addition, the time required to charge an EV (15%), as well as not needing a new vehicle at this time (14%), were identified as barriers to purchasing an EV.

# 14. EV Ownership Considering Barriers (335 Responses):

Despite the consideration of barriers, a majority (64%) of respondents expressed willingness to own an EV if these obstacles were addressed.

# 15. Relationship with the City (269 Responses):

The majority of respondents are residents of Bellevue (78%), with most others working, studying, or visiting the city for various purposes.

# 16. Respondent Neighborhood (207 Responses):

The top three identified neighborhoods the respondents belong to are Downtown (17%), West Bellevue (11%), and Lake Hills (11%).

The survey findings highlight both opportunities and perceived barriers in promoting EV adoption within the Bellevue community. Addressing barriers such as affordability and charging infrastructure, while promoting awareness of incentives and environmental benefits, will be crucial in advancing the transition to electric mobility.

# Responses Breakdown

Current housing situation?

Single family, own: 172
Single family, rent: 10
Townhouse, own: 7
Townhouse, rent: 4

• Multifamily (apartment, condo, or similar) rent: 18

• Other (please specify): 3

Which of the following best describes your knowledge of plug-in EVs?

• I have never heard of a plug-in EV before: 1

• I have heard of plug-in EVs but don't know much about them: 31

• I have heard of plug-in EVs and know quite a bit about them: 64

I know a great deal about plug-in EVs: 144

Do you currently have the ability to charge an EV at home?

Yes: 123No: 103Unsure: 4

• Other (please specify): 9

Which of the following incentives are you aware of to help reduce the cost of purchasing an EV or EV charging equipment? Please select all that apply.

State tax exemptions: 100
Federal tax credits: 180
None of the above: 51
Other (please specify): 4

Are you interested in other types of electric mobility for your personal use? Please select all that apply.

• EV car share: 45

E-bike: 97E-scooter: 38

• I am not interested in any other types: 114

• Other (please specify): 9

How would you use these forms of electric mobility? Please select all that apply.

• Commuting: 70

• Getting to appointments: 88

• Fun/leisure: 107

• Other (please specify): 10

Do you own/lease a Battery Electric Vehicle (BEV) or Plug-in Hybrid Electric Vehicle (PHEV)?

• I own/lease a BEV: 95

• I own/lease a plug-in hybrid EV: 20

• I do not own/lease either a BEV or PHEV: 125

Where do you most often charge your electric vehicle?

• At home: 100

• At my place of work: 5

• At a publicly available charging station: 9

• Other (please specify): 1

Why do you most often charge your EV at that location?

• It is most convenient to charge there: 98

I do not have access to other charging locations: 7

I have convenient access to other charging locations, but my preferred location is cheaper: 5

• Other (please specify): 5

Where would you most prefer to charge your EV, if you had access to all of these locations?

• At home: 92

• At my place of work: 9

• At a publicly available location: 13

• Other (please specify): 1

What do you most commonly use your EV for? Please select all that apply.

Commuting: 71

Running errands: 109

• Personal travel: 83

• Business/professional travel (including driving rideshare): 12

- Long-range travel (>100 miles): 36
- Other (please specify): 1

What was the most important factor for you in purchasing an EV?

- Clean air/environmental: 70
- Cost savings: 15
- Performance/EVs are fun to drive: 10
- Energy independence: 6
- Convenience: 4
- Style/latest technology: 5
- Other (please specify): 5

Are you considering purchasing an EV?

- I'm considering purchasing or leasing a plug-in or hybrid EV in the next 1-3 years
- I'm considering purchasing or leasing a plug-in hybrid or plug-in EV but am unsure when
- I am not considering purchasing or leasing a plug-in hybrid or plug-in EV

As you consider potentially purchasing an electric vehicle, what is the most important factor for you?

- Clean air/environmental: 56
- Cost savings: 29
- Performance/EVs are fun to drive: 6
- Energy independence: 2
- Convenience: 10
- Style/latest technology: 8
- Other (please specify): 36

If you were to purchase an EV, what do you anticipate your most common use would be? Please select all that apply.

- Commuting: 68
- Running errands: 108
- Personal travel: 48
- Business/professional travel (including driving rideshare): 10
- Long-range travel (>100 miles): 56
- Other (please specify): 22

What are your main barriers to purchasing an EV? Please select all that apply.

- Affordability: 56
- Reliable access to charging: 75
- Concern that EVs don't have enough range: 63
- Time needed to charge the vehicle: 51
- Timing (don't need a new vehicle at this time): 48
- Other (Please specify): 42

Would you own an EV if the barrier(s) were not an issue?

Yes: 94No: 30

• Other (please specify): 23

What is your main relationship with Bellevue?

• I live in the city: 211

• I own or operate a business in the city: 18

• I go to school in the city:1

• I work in the city, but live elsewhere: 17

• I come to the city, to shop, dine, have fun, but live elsewhere: 22

What neighborhood do you live in?

• BelRed: 2

Bridle Trails: 10

• Cougar Mountain/Lakemont: 10

Crossroads: 14
Downtown: 35
Eastgate: 16
Factoria: 3
Lake Hills: 22
Newport: 8

Northeast Bellevue: 8Northwest Bellevue: 8

Somerset: 11West Bellevue: 23

West Lake Sammamish: 6

Wilburton: 18Woolridge: 13

# **Demographic Analysis of Contributors**

The demographic analysis of contributors is reflective of sign-up form responses that were collected during the survey period. A significant number of survey respondents remained anonymous, with very little demographic characteristics accounted for as shown in the breakdown below.

Which of the following best represents your racial or ethnic heritage? Choose all that apply.

• Black or African American: 1

Hispanic or Latino: 1More than one race: 1White Non-hispanic: 8

What decade were you born in?

1990s: 11970s: 11960s: 31950s: 1

Do you speak a language other than English at home?

• No: 6

Are you an owner or renter of your primary residence?

Own: 1Renter: 1

In an effort to improve our outreach strategy, would you be willing to tell us more about yourself by answering some additional questions? This information will help us better understand who we are reaching and how we can make sure our outreach is inclusive and welcoming.

Yes: 8No: 2