



CITY OF  
**PALO  
ALTO**

**CITY OF PALO ALTO**  
**Climate Action and Sustainability Committee**  
**Friday, June 13, 2025**

<b>Agenda Item</b>
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3. Recommendation to City Council to Accept the E-Mobility Strategic Roadmap; CEQA Status - Under CEQA Guidelines Section 15183, Projects Consistent with an Existing General or Comprehensive Plan do not Require Additional CEQA Review



## Climate Action and Sustainability Committee Staff Report

**From: City Manager**

**Report Type: ACTION ITEMS**

**Lead Department: Public Works**

**Meeting Date: June 13, 2025**

Report #:2505-4670

### **TITLE**

Recommendation to City Council to Accept the E-Mobility Strategic Roadmap; CEQA Status - Under CEQA Guidelines Section 15183, Projects Consistent with an Existing General or Comprehensive Plan do not Require Additional CEQA Review

### **RECOMMENDATION**

Staff requests that the Climate Action and Sustainability Committee recommend that the City Council accept the E-Mobility Strategic Roadmap.

### **EXECUTIVE SUMMARY**

The E-Mobility Strategic Roadmap (Attachment C) is meant to coordinate and prioritize the City's efforts in expanding electric mobility options – from electric trucks to electric cars to e-bikes and e-scooters – to meet climate and transportation goals. The Roadmap identifies key strategies and actions that will help the City and its partners support electric mobility (e-mobility) adoption of all sizes, develop charging and other infrastructure to support the e-mobility transition, and ensure electric transportation programs and policies align with related City efforts. The Roadmap's major strategies focus on: (1) raising public awareness and education around electric transportation; (2) expanding access to e-mobility options and charging infrastructure for underserved groups (such as renters, low-income households, and non-profits); (3) developing public and shared charging infrastructure and mobility hubs; (4) coordinating e-mobility efforts with broader transportation efforts; and (5) encouraging electric-grid-friendly charging and infrastructure practices.

The Roadmap utilizes insights from the EV Charger Needs Assessment, summarized in Attachment B, to address the particular opportunities and challenges of e-mobility. Furthermore, the Roadmap is intended to complement and support the implementation of other City plans and studies such as the Bicycle and Pedestrian Transportation Plan and Reliability and Resiliency Strategic Plan.

The Roadmap is not intended to be a Work Plan. Instead, it guides other work efforts. Staff has included a summary in Attachment A of how the Roadmap could guide current work efforts, as well as some potential work items for the 2026-2027 S/CAP Work Plan Climate Section, along with an explanation of how they would be guided by the Roadmap's strategies and actions.

## **BACKGROUND**

In June 2023, the City Council adopted the Sustainability and Climate Action Plan (S/CAP), and approved the 2023-2025 S/CAP Work Plan. The E-Mobility Strategic Roadmap fulfills the 2023–2025 S/CAP Work Plan Item 2.5A, which directed staff to develop an EV Strategic Plan. It is meant to align with the policy guidelines in Appendix C of that document and complements the Reliability and Resiliency Strategic Plan, which focuses more heavily on the electric distribution system impacts and benefits of e-mobility and other technologies. This E-Mobility Strategic Roadmap is intended to provide a coordinated approach to achieving several relevant S/CAP Goals and Key Actions, as described in the Roadmap itself.

## **ANALYSIS**

The E-Mobility Strategic Roadmap identifies five main strategies to promote electrified transportation:

1. **Raise Awareness:** Increase public understanding and adoption of electric transportation through comprehensive education, safety and outreach campaigns, community events, and partnerships.
2. **Expand Access for Underserved Groups:** Address barriers faced by renters, low-income households, multi-family residents, businesses, commuters, and visitors by expanding electric transportation charging infrastructure, providing technical assistance, and creating shared mobility programs like carshare and e-bike lending.
3. **Public & Shared Infrastructure:** Develop strategically located public EV chargers and mobility hubs near multifamily developments and employment centers, fostering public-private partnerships to ensure accessibility and utilization.
4. **Integrate Micromobility:** Enhance integration of e-bikes and e-scooters with transit and existing bicycle/pedestrian infrastructure, improving first- and last-mile connectivity and encouraging multi-modal transportation.
5. **Grid-Friendly Charging:** Implement smart charging practices, including load management and grid-responsive solutions, aligning with broader goals outlined in the Reliability and Resiliency Strategic Plan to support grid stability and resilience.

These Roadmap strategies are meant to guide the role of e-mobility in Palo Alto's existing sustainability and mobility programs and its future programs, as described in Attachment B. The City currently hosts EV and e-bike events, runs EV discount campaigns, and operates an EV Technical Assistance Program to help multifamily properties install electric vehicle chargers. Additionally, programs like Safe Routes to School and events such as "Bike to Wherever Day"

promote active transportation. The Roadmap would guide these activities by, for example, including promotion of e-bikes and e-scooters to enhance active transportation and transit use, while making sure infrastructure to support these technologies and conventional bicycling is included when installing e-car charging infrastructure.

The Roadmap would also be used to shape upcoming initiatives. As noted, the Roadmap is not a work plan, but work items achieving its goals would be included in the 2026-2027 S/CAP Work Plan. Some tentative work items being considered for inclusion are in Attachment A, including:

- *Enhanced Multifamily EV Charging Program (“EV Program 2.0”)*: This program expands multifamily charging infrastructure through updated guidelines, increased incentives, and technical support. Solutions include private multifamily charging, neighborhood e-mobility hubs, and curbside installations. E-car charger installations would use strategies to avoid overbuilding based on insights from the EV Charger Needs Assessment (described below), would explore the use of strategies like managed charging to minimize electric utility impacts, and would explore including micromobility infrastructure compatible with City transportation plans.
- *Micromobility Network and Shared E-Vehicle Pilot*: Following the Shared Micromobility Feasibility Study, this initiative would pilot shared bikes, e-bikes, and/or e-scooters, enhancing first- and last-mile connectivity, complementing transit use, and aligning with the Bicycle and Pedestrian Plan, with implementation anticipated in 2026.

Staff is currently finalizing an EV Charger Needs Assessment report summarizing the results of analysis and research completed in the last year to guide the City’s EV charger construction efforts. Key preliminary insights from that plan are included in Attachment B, and were used to guide development of the Roadmap. Two scenarios were examined: a moderate “Light EV Charging” scenario focusing mainly on home and workplace chargers, and a “Robust EV Charging” scenario envisioning significantly expanded public charging infrastructure to attract a greater share of commuter and visitor EV charging. The study recommends prioritizing home charging for multifamily residents as the most cost-effective approach, supplemented strategically by public fast chargers to serve drivers without private options. It assesses that the charging price needed to support public charging in Palo Alto is similar to the cost of home charging in nearby cities, emphasizing that public and workplace charging projects should be approached carefully to avoid underutilization. All of these insights are reflected in strategies and actions in the Roadmap.

## **FISCAL/RESOURCE IMPACT**

There is no additional fiscal or resource impact associated with the E-Mobility Strategic Roadmap, since this document is meant to guide other work efforts. The fiscal and resource impact of potential 2026-2027 S/CAP Work Plan items will be evaluated through the 2026-2027 S/CAP Work Plan development process.

## **STAKEHOLDER ENGAGEMENT**

E-Mobility has been a topic of a number of public meetings about the S/CAP, and input from these meetings has informed this Roadmap. These include:

- Various public and private meetings of the S/CAP Ad Hoc Committee and its Working Group from 2021 – 2023
- June 5, 2023 Council meeting adopting the Sustainability and Climate Action Plan and the 2023-2025 S/CAP Work Plan, including guidelines for development of an EV Strategic Plan (now E-Mobility Strategic Plan)<sup>1</sup>
- Oct 30, 2024 Planning & Transportation Commission meeting on shared micromobility<sup>2</sup> Meetings of the Climate Protection Committee and its Working Group in June 2024, September 2024, and November 2024 focused on the E-Mobility Strategic Plan and EV Charger Needs Assessment

## **ENVIRONMENTAL REVIEW**

Potential environmental impacts of an EV Strategic Plan (now E-Mobility Strategic Roadmap) were analyzed as part of the Sustainability and Climate Action Plan (S/CAP) Addendum to the Comprehensive Plan Environmental Impact Report. On June 5, 2023 (Staff Report #2303-1158), Council certified the Addendum, which found that the S/CAP programs would not result in any significant or substantially more severe effects beyond what was previously analyzed in the Comprehensive Plan EIR. Under CEQA Guidelines section 15183, projects consistent with an existing general or comprehensive plan do not require additional CEQA review.

## **ATTACHMENTS**

Attachment A: Current and Potential Work Items and How the E-Mobility Strategic Roadmap Will Guide and Complement Their Development

Attachment B: Insights from EV Charger Needs Assessment

Attachment C: E-Mobility Strategic Roadmap

## **APPROVED BY:**

Brad Eggleston, Director Public Works/City Engineer

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<sup>1</sup> City Council, June 5, 2023, *Adoption of a Resolution Approving an Addendum to the 2017 Comprehensive Plan Environmental Impact Report and Adopting the Sustainability and Climate Action Plan (S/CAP); Approval of the 2023-2025 S/CAP Workplan; and Review of the 2023 Earth Day Report*, <https://cityofpaloalto.primegov.com/meetings/ItemWithTemplateType?id=2276&meetingTemplateType=2&compiledMeetingDocumentId=7200>

<sup>2</sup> Planning and Transportation Commission, October 30, 2024, *Request for Feedback on the Development of a Feasibility Study for a Shared Micromobility Program in Palo Alto* <https://cityofpaloalto.primegov.com/Portal/viewer?id=0&type=7&uid=f234f57c-3691-46e7-8666-c45662976e81>

## Current and Potential Work Items and How the E-Mobility Strategic Roadmap Will Guide and Complement Their Development

### Contents:

1. Current Activities Implementing E-Mobility Strategic Roadmap
2. Potential 2026-2027 S/CAP Work Plan Items to Implement E-Mobility Roadmap
3. How the E-Mobility Strategic Roadmap Would Guide Implementation of Current Activities and Potential Future Work Plan Items
4. Current Activities and Potential 2026-2027 Work Plan Items that the E-Mobility Strategic Roadmap Will Complement

### 1. Current Activities Aligned With E-Mobility Strategic Roadmap

In line with E-Mobility Strategic Roadmap Strategy 1, the City promotes electric vehicle (EV) charging, active transportation, and transit in a variety of ways, including:

- EV, bike, and e-bike expos and workshops for the general public, employees of major commuters, and residents of multi-family buildings where EV chargers have been installed
- EV discount campaigns
- Workshops, curriculum components, and educational materials to build student bike skills for students
- Use of volunteer school-site representatives to support student bike adoption
- Bike to Wherever day
- General outreach through a variety of City electronic and non-electronic channels
- Promoting these topics at community and school events

In line with E-Mobility Strategic Roadmap Strategy 2, the City promotes EV charger access for multi-family residents through its EV Technical Assistance Program.

### 2. Potential 2026-2027 S/CAP Work Plan Items Aligned With E-Mobility Roadmap

Enhanced Multifamily EV Charging Infrastructure Program (EV Program 2.0)	
S/CAP Key Action(s): EV5, EV6, EV7	Resource Availability:
Target Completion Date:	
Description: Update program guidelines, incentives (i.e. rebates, financing), and technical assistance offerings for the installation of EV charging infrastructure that supports multifamily residents through: a) private on-site charging at multifamily properties; b) publicly-accessible charging at neighborhood e-mobility hubs hosted on either public or private properties; and c) publicly-owned or public-private partnership neighborhood curbside charging installations; with the goal of greatly increasing access to EV charging to multifamily residents by the end of 2027.	

Implement Micromobility Feasibility Study recommendations	
S/CAP Key Action(s): M1, M2	Resource Availability: Fully staffed and partially funded, need to evaluate based on recommendation.
Target Completion Date: 2026	
Description: Pursue a bike/e-bike/e-scooter share pilot program or other recommendation as advised by the Micromobility Feasibility Study, to be finalized in fall 2025.	

### 3. How the E-Mobility Strategic Roadmap Would Guide Implementation of Current Activities and Potential Future Work Plan Items

The bullet points below summarize how each E-Mobility Strategic Roadmap strategy would guide implementation of current activities and the potential work plan items above:

*Strategy 1: Raise awareness of the advantages of electric transportation and provide resources and assistance to help residents, businesses, commuters, and visitors transition*

- Staff would continue promotion of EV charging, active transportation, and transit
- Staff would explore ways to enhance active transportation and transit promotion with promotion of e-bike, e-scooter, and other small EV promotion
- Staff would explore greater use of ambassadors to promote non-ICE transportation

Strategy 2: Help underserved residents, businesses / nonprofits, and commuters access electric transportation

- Staff would expand its EV charging program focused on multi-family charger access, with a particular focus on affordable housing
- The program would use a combination of strategies (such as mobility hubs, curbside charging, shared EV charging, and individual unit EV charging as appropriate) to provide multi-family EV charging access without overbuilding
- Economically efficient program designs would be explored for the program with the goal of enabling the multi-family charger program to serve the entire community with available funding sources
- Staff would explore adding safe, secure bike and e-bike parking and charging to multi-family buildings when adding EV charging for enhanced safety and ability to access active transportation and e-mobility

Strategy 3: Pursue public and shared electric transportation infrastructure

- Staff would develop the public and workplace EV charging study in alignment with the guidance in the E-Mobility Strategic Plan roadmap

- Staff would pursue a bike/e-bike/e-scooter share pilot program or other recommendation as advised by the Micromobility Feasibility Study, to be finalized in fall 2025.

Strategy 4: Develop small EV (e.g. e-bike, e-scooter) infrastructure that complements City active transportation and public transit strategies

- When implementing e-mobility hubs near multi-family buildings, staff would ensure they are compatible with future bicycle and pedestrian infrastructure
- When developing e-mobility hubs, staff would look for opportunities to align with micromobility pilots or other recommendations approved by Council based on the Micromobility Feasibility Study

Strategy 5: Encourage charging that helps the local and statewide electric system and is aligned with Reliability and Resiliency Strategic Plan strategies and actions

- When implementing multi-family focused EV charger program, staff would explore promoting or requiring technologies that minimize grid impacts of EV charging
- When implementing electric system upgrades to support EV charging in multi-family buildings, staff would evaluate implementing upgrades needed to additionally support building electrification
- Where grid-responsive EV charging is cost-effective based on Reliability and Resiliency Strategic Plan analysis and supported by Council policy, staff would incorporate it into multi-family EV charging programs and promote it citywide

#### 4. Current Activities and Potential 2026-2027 Work Plan Items that the E-Mobility Strategic Roadmap Will Complement

Current activities:

- A Safe Streets for All plan is currently in development
- The Bicycle and Pedestrian Transportation Plan is currently in development

Potential 2026-2027 Work Plan Items:

Achieve Benchmarks for Bicycle and Pedestrian Capital Improvement Projects	
S/CAP Key Action(s): M1, M2, M3	Resource Availability: Varying
Target Completion Date: Varying, by 2027	
Description: South Palo Alto Bikeways Demonstration Project: <i>Upgrade crossings and bicycle facilities on East Meadow Dr and Fabian Way to improve safety, especially for students traveling to school. Construction anticipated for summer 2026. Project is fully staffed and funded.</i>	



Churchill Avenue Enhanced Bikeway Project: *Improve walking and bicycling on Churchill Avenue with a multi-use path, intersection improvements, and landscaping. Project work is focused between the Caltrain tracks and El Camino Real. Construction is scheduled to finish by summer 2026.*

Quarry Road Extension at El Camino Park: *Develop underused portion of El Camino Park to provide a direct connection from El Camino Real to the Palo Alto Transit Center. Project is led by Stanford. By 2027, project will complete the Caltrans process for the Encroachment Permit and prepare plans, specifications, and estimate construction documents for the project in both Caltrans and City right-of-way. In addition, the team will perform both a bike and transit operations assessment and recommend operational scenarios to inform future bikes, bus and shuttle operations in and around the Transit Center.*

South Palo Alto Bike/Ped Connectivity: *Identify locations and design concepts for additional east-west bicycle and pedestrian crossings of the Caltrain railroad tracks in the southern part of the City. Project will complete following Council adoption of a final report in Q3 of 2026, and next steps for the City include securing grant funding for final design and construction.*

## Overview of Preliminary EV Charger Needs Assessment Results

This document summarizes key findings from the draft EV Charger Needs Assessment conducted by Energy and Environmental Economics (E3) for the City of Palo Alto. The report models the level of EV charging infrastructure needed to meet the City's "80x30" climate goal—reducing greenhouse gas (GHG) emissions 80% below 1990 levels by 2030—and assesses the costs and business models that could support this infrastructure buildout.

### Overview and Key Findings

Palo Alto will need to electrify a large share of its vehicle fleet to meet emissions reduction targets. The City's electrification goals, combined with State mandates, suggest that at least 42,000 to 50,000 light-duty electric vehicles (EVs) could be on the road by 2040, along with commuter and visitor EVs and medium-duty and heavy-duty fleet EVs.

To support this transition, the City will need between 35,000 and 60,000 EV chargers across all use cases (home, workplace, public, and fleet). Two charging scenarios were modeled to illustrate the opposite ends of that range: a "Light EV Charging" scenario with limited public charging and lower adoption rates, and a "Robust EV Charging" scenario with higher EV adoption and substantial public infrastructure investment. Under the robust scenario, Palo Alto would act as a regional "charging hub" for commuters and visitors. Up-front charger costs rise substantially in the robust scenario but are offset by increased utilization and charging revenues if care is taken to ensure charging capacity aligns with demand. The Robust EV Charging scenario assumes high demand.

### Business Models and Cost Recovery

The analysis examines multiple business models for charger deployment, including City-owned, third-party owned, and Charging-as-a-Service (CaaS). Public chargers—particularly DC fast chargers—are substantially more expensive than home chargers, but can serve more vehicles and are necessary to support drivers without home access. A key finding is that prioritizing home charging for multifamily residents can offer a lower-cost path than investing heavily in public chargers, especially through a combination of individual L1 chargers and shared on-site L2 chargers or nearby public charging to supplement.

## Commuter, Visitor, and E-Bike Considerations

Palo Alto's strategy must also consider how much charging infrastructure will serve non-resident commuters and visitors. A low-support strategy serving 25% of this population's charging would require about 3,000 public and workplace chargers. Supporting 75% of commuter/visitor charging would require about 16,000 chargers, a level that would require that public charging in Palo Alto be significantly cheaper than home charging or that many commuters and visitors buy EVs even if they do not have access to adequate home charging and charge them in Palo Alto. It would require charging costs of approximately \$0.42/kWh to recover the costs of up-front capital investment. This is comparable to PG&E home charging rates in surrounding jurisdictions, meaning that careful evaluation will need to be done site by site to ensure chargers are fully utilized and overbuilding does not occur.

The report also evaluates the role of e-bikes in reducing vehicle miles traveled and GHG emissions. Incentivizing e-bike use for commuting and errands can provide cost-effective emissions abatement, especially if paired with supportive infrastructure, but in many cases does not represent a cost savings over driving, unlike conventional bicycling, unless the e bike is used for 2,500 to 3,000 miles per year (about 6.8 – 8.2 miles per day if used every day or 12.5 – 15 miles per day if used only for work trips). But these numbers are highly dependent on assumptions about the cost of the bicycle, which ranges widely, and annual maintenance, which can also vary significantly.

## Policy Considerations

The assessment surfaced the following policy considerations:

- Certain customer segments have higher barriers to adoption, such as renters and multifamily residents. Creative business models (such as CaaS) will be critical to helping landlords serve the former, while policy decisions about whether to pursue a public-focused or home-focused charging strategy are critical for the latter.
- Investment decisions in public charging should account for charger utilization and alignment with customer preferences (e.g., preference for DC fast charging). Mapping of nearby uses and staged investments may help avoid overbuilding.
- Business models should be tailored to customer type and ownership model, with flexibility to combine public, private, and CaaS approaches.
- Public funding may be needed in locations the private market will not serve, such as low-income multifamily buildings.



# E-Mobility Strategic Roadmap

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## 1 Introduction

This E-Mobility Strategic Roadmap provides a framework for Palo Alto to advance its electric transportation goals. It lays out the vision, guiding principles, strategies, and actions necessary to transition to a sustainable, equitable, and electrified transportation network that aligns with local and state climate objectives.

### 1.1 Vision Statement

*A community where safe, multi-modal, carbon-free transportation is widely available, user-friendly, and highly utilized by commuters, visitors, and residents regardless of income level*

The vision promotes a comprehensive, accessible, and inclusive approach to transportation, emphasizing multi-modal electric mobility solutions that are environmentally sustainable and beneficial for all community members, regardless of income.

### 1.2 Guiding Principles

These guiding principles shape the roadmap's strategic approach, emphasizing the importance of equity, accessibility, strategic infrastructure deployment, efficient use of resources, and integration with broader electrification and resilience planning.

- Promote electrified mobility alternatives to single-occupancy vehicles
- Provide access to electric transportation regardless of income level
- Access to adequate charging should be available to all residents, commuters, and visitors

- Information on purchasing, renting/sharing, and charging of electric transportation should be widely available
- Charging infrastructure should be provided at appropriate locations, speeds, and configurations that meet the needs of all residents, commuters, and visitors
- Pursue low-grid-impact charging solutions that integrate with broader electrification planning
- Focus on strategic siting of publicly accessible charging to serve nearby electric transportation users
- Where appropriate, provide financial incentives to the community to install chargers
- Provide cost-efficient business models that leverage the financial strengths of each stakeholder

The guiding principles provide more nuance to the vision statement listed above, describing how the vision for a future community will be implemented through the strategies and actions in this roadmap.

## 2 E-Mobility Overview

This section provides an overview of e-mobility broadly, its infrastructure needs, and how it might be used in Palo Alto.

### 2.1 What is E-Mobility?

E-mobility involves the use of electric-powered vehicles as an alternative to traditional fossil fuel-based transportation. It includes a range of transportation modes such as electric cars, buses, bikes, scooters, and trucks, offering cleaner and often more efficient alternatives.

### 2.2 E-Mobility in Palo Alto

Palo Alto's e-mobility ecosystem encompasses a diverse range of electric transportation options. Personal electric vehicles, such as e-bikes and e-scooters, are increasingly popular for short-distance travel and first- and last-mile connectivity. Shared micromobility services, including bike-share and scooter-share programs, are not available in Palo Alto but could provide accessible options for those without personal vehicles. As a suburban community, Palo Alto's e-mobility will include electric cars as a major component. In the commercial sector, medium-duty electric delivery vans can be utilized for local logistics, reducing emissions from freight transport, but charging is likely delivered primarily outside Palo Alto. Heavy-duty electric vehicles, such as electric buses and garbage trucks, are being integrated into public transit and municipal services, and do need charging infrastructure.

### 2.3 Co-Benefits

E-mobility offers co-benefits beyond GHG reduction, including improved local air quality from zero tailpipe emissions, reduced noise pollution, enhanced public health through increased active transport options, and lower transportation costs for users due to reduced fuel and maintenance expenses. Expanded adoption of small EVs like e-bikes and e-scooters could enable access to transit for those who currently have difficulty accessing it and could widen the population using active transportation modes, reducing congestion and non-exhaust air pollution from cars (which can be generated by electric cars as well). Traveling with small EVs is also more energy efficient, reducing impacts to the electric grid and reducing the amount of renewable electricity generation needed.

## 2.4 E-Mobility as a Last Mile Solution

E-bikes and e-scooters facilitate last-mile journeys by providing a quick, flexible connection between transit stops and final destinations, enhancing the overall attractiveness of public transportation, reducing reliance on personal vehicles for short trips, and improving network accessibility.

## 2.5 Economics and Tradeoffs: E-Mobility vs. Conventional Mobility

E-mobility includes tradeoffs against conventional mobility and may be more or less expensive. For example, e-cars are cheaper than conventional cars over time but can result in range anxiety and charging issues for adopters and the need for specialized charging infrastructure. E-bikes and e-scooters, on the other hand, have higher costs per mile than conventional bicycles and scooters, but are balanced by increased convenience, accessibility, and ease of use.

## 2.6 E-Mobility Charging Infrastructure

Small EVs can usually charge with a common 120V outlet, though for some e-bike designs without detachable batteries it may be challenging to find an outlet convenient to secure charging. E-car charging infrastructure varies from low-speed, low-cost Level 1 chargers suitable for most average daily use, to faster Level 2 chargers providing enough charging for several days or for long trips, and high-speed direct current (DC) fast chargers to supplement home charging or for other public and commercial applications. Heavy vehicle fleets may require many high-capacity chargers, straining local electric grids. Charging considerations include up-front capital investment, ensuring sufficient electrical capacity, optimizing charger placement, and addressing safety concerns such as battery thermal events.

# 3 Policy Context

This E-Mobility Strategic Roadmap fulfills the 2023-2025 S/CAP Work Plan Work Item 2.5A to develop an EV Strategic Plan. It is meant to align with the policy guidelines in Appendix C of that document and complements the Reliability and Resiliency Strategic Plan, which focuses more heavily on the electric distribution system impacts and benefits of e-mobility and other technologies. This E-Mobility Strategic Roadmap is intended to provide a coordinated approach to achieving several relevant Sustainability and climate Action Plan (S/CAP) Goals and Key Actions, including:

- The Electric Vehicle section Goals to reduce transportation-related GHG emissions and to build out an EV charging network
- The Mobility section Goals to reduce vehicle miles traveled (VMT) and increase active transportation and transit use
- Mobility Key Action M2 focused on increasing access to transit using, among other solutions, micromobility as a last-mile solution
- EV Key Actions EV1 and EV3 focused on EV promotion, including promoting alternative transportation and electric micromobility alongside EVs
- EV Key Action EV4 on facilitating adoption of EVs of all types
- EV Key Action EV5 focused on creating infrastructure for electric micromobility and active transportation when building EV infrastructure

## 4 Role of the E-Mobility Strategic Roadmap

The E-Mobility Strategic Roadmap is intended as a high-level strategic document to guide work on e-mobility. It is not meant to be a work plan, and specific work items will be identified in other plans or the 2026-2027 S/CAP Work Plan. In addition, this roadmap is meant to complement other plans, not replace or overlap with them.

Complementary plans include:

- Bicycle and Pedestrian Transportation Plan (in development)
- Safe Streets for All (in development)
- Reliability and Resiliency Strategic Plan (adopted, being implemented)
- Shared Micromobility Study (in development)
- EV Charger Needs Assessment (in development)

The table below shows various topics and how they are addressed in each plan, strategy, or roadmap:

Topic	Plan(s)
Building the bike network	Bicycle and Pedestrian Transportation Plan
Bike, pedestrian, and e-bike safety	Safe Streets for All, Bicycle and Pedestrian Transportation Plan
Shared e-bikes and e-scooters	Shared Micromobility Feasibility Study
Mitigating the grid impact of e-cars and e-trucks	Reliability and Resiliency Strategic Plan
Availability of safe charging infrastructure for various types of e-mobility and users	E-Mobility Strategic Roadmap
Strategies for e-mobility promotion	E-Mobility Strategic Roadmap
Economics of e-mobility as a solution for GHG reduction and achievement of co-benefits	E-Mobility Strategic Roadmap
Equitable access to e-mobility	E-Mobility Strategic Roadmap
Number of EV chargers needed to support various sectors, business models for charging	EV Charger Needs Assessment
Private e-bike economics	EV Charger Needs Assessment

In several of the strategies and actions below the E-Mobility Strategic Roadmap notes coordination with the plans and analyses above (for example, making sure managed charging is promoted or required in multi-family EV charging installations to coordinate with the Reliability and Resiliency Strategic Plan).

## 5 Strategies and Actions

The following strategies and actions are designed to guide the City's e-mobility efforts in the areas of promotion, equity, supporting infrastructure, and ensuring e-mobility efforts complement other transportation and electric grid reliability planning efforts. Collectively, these strategies and actions provide a roadmap for coordinated implementation across various programs, projects, and related efforts involving e-mobility as a central focus or as one of a broader set of objectives.

### 5.1 Strategy 1: Raise awareness of the advantages of electric transportation and provide resources and assistance to help residents, businesses, commuters, and visitors transition

This strategy focuses on comprehensive outreach, education, and partnership-building for e-mobility. Outreach efforts are intended to be complementary, with smaller e-mobility technologies like e-bikes and e-scooters being promoted as part of efforts to promote active transportation or as a last mile solution for transit, and emissions

reduction more broadly being promoted in the context of active transportation and transit solutions – promoting getting out of cars, but if you have to drive, drive electric. Equitable promotion of e-mobility and regional partnerships are key considerations in this strategy to reach income-qualified travelers and commuters.

**Action 1:** Continue and expand existing outreach, education, and engagement efforts to promote electric transportation adoption to residents and commuters

**Action 2:** Combine promotion of public transit and active transportation with promotion of e-mobility solutions, especially “last mile” solutions

**Action 3:** Create communications tailored to the needs of low-income residents and renters

**Action 4:** Seek regional partnerships to promote all types of electric transportation to residents regionally and to promote electric cars and trucks to businesses like rideshare / delivery with high regional vehicle use

## **5.2 Strategy 2: Help underserved residents, businesses / nonprofits, and commuters access electric transportation**

This strategy addresses barriers faced by underserved populations by facilitating access to electric vehicles, chargers, and shared mobility services through targeted programs and incentives. In this context “underserved” means groups who are not well served by private industry efforts to install charging. A key consideration for this strategy is economic efficiency to ensure infrastructure being built is widely accessible.

**Action 1:** Active facilitation of EV charging, bicycle infrastructure, and shared electric vehicles (carshare, e-bike share, e-scooter share, etc.) for multi-family complexes, major employers, and in employment centers

**Action 2:** Explore preferential parking and charging for visitors in electric vehicles

**Action 3:** Explore ways to ease the provision of electrical infrastructure to support chargers in multi-family complexes, major employers, and in employment centers

**Action 4:** Identify cost-efficient business models for service delivery that are highly scalable and minimize the amount of additional funding and financing required

## **5.3 Strategy 3: Pursue public and shared electric transportation infrastructure**

This strategy aims to expand public and shared charging infrastructure to ensure high utilization of infrastructure, enable access for those less able to afford their own e-mobility solutions or who are not yet ready to fully commit to e-mobility, and to enable facilities that can be used by multiple groups in the community (such as employees and nearby multi-family residents).

**Action 1:** Map areas of high potential for shared electric transportation infrastructure such as publicly available charging, bike infrastructure, or shared vehicles

**Action 2:** Explore e-mobility hubs near multi-family housing and employment centers that include amenities like DC fast EV charging, electric car share, bike share, or bicycle infrastructure.

**Action 3:** Explore public-private partnerships (e.g. in churches, neighborhood centers) and on-street charging to add EV charging allowing for all-day and/or overnight charging near employment centers and multi-family residences.



#### **5.4 Strategy 4: Develop small EV (e.g. e-bike, e-scooter) infrastructure that complements City active transportation and public transit strategies**

This strategy ensures that e-mobility strategies enhance active transportation networks and programs, for example by integrating micromobility infrastructure—such as e-bike and e-scooter docking and supportive facilities—with existing bike and pedestrian routes and ensuring mobility hubs do not interfere with bike lanes or other active transportation pathways.

**Action 1:** Ensure e-mobility hub locations complement public transit and bicycle/scooter friendly routes where possible

**Action 2:** Pursue implementation of low-stress bicycle facilities to encourage e-bike and e-scooter use, especially for novice riders

**Action 3:** Coordinate e-mobility strategies with City active transportation and public transit strategies wherever possible

#### **5.5 Strategy 5: Encourage charging that helps the local and statewide electric system and is aligned with Reliability and Resiliency Strategic Plan strategies and actions**

This strategy is focused on making sure e-mobility infrastructure, primarily e-car charging, minimizes its impact on the electric grid. It includes smart charging and load management programs to optimize charging behavior, minimize grid impacts, and align with the city's reliability and resiliency objectives.

**Action 1:** Investigate programs and rate designs that facilitate employee daytime charging in Palo Alto

**Action 2:** Promote, facilitate, or require load management for large concentrations of electric vehicle charging

**Action 3:** Explore opportunities for vehicle to home and grid integration in coordination with Reliability and Resiliency Strategic Plan implementation efforts.

**Action 4:** Ensure electrical capacity added to support electric transportation can support other priority technologies like building electrification, solar, storage, and similar technologies