

Environmental Quality Commission



SPECIAL MEETING AGENDA

Date: 1/31/2024
Time: 6:00 p.m.
Location: [Zoom.us/join](https://zoom.us/join) – ID# 879 3070 9093 and
City Hall Downtown Conference Room, 1st Floor
701 Laurel St., Menlo Park, CA 94025

Members of the public can listen to the meeting and participate using the following methods.

- How to participate in the meeting
 - Access the meeting, in-person, at the Downtown Conference Room
 - Access the meeting real-time online at:
[Zoom.us/join](https://zoom.us/join) –Meeting ID 879 3070 9093
 - Access the meeting real-time via telephone at:
(669) 900-6833
Meeting ID 879 3070 9093
Press *9 to raise hand to speak

Subject to change: The format of this meeting may be altered or the meeting may be canceled. You may check on the status of the meeting by visiting the city website menlopark.gov. The instructions for logging on to the webinar and/or the access code is subject to change. If you have difficulty accessing the webinar, please check the latest online edition of the posted agenda for updated information (menlopark.gov/agendas).

Special Session

A. Call To Order

B. Roll Call – Chair Hedley, Kissel, Lin, McKenna, Pelegri-Llopart, Vice Chair Schmidt

C. Regular Business

C1. Approve the October 18, 2023 Environmental Quality Commission meeting minutes ([Attachment](#))

C2. Tesla Patrol Pilot update ([Presentation](#))

C3. Review and discuss recommendations from the EV Ad Hoc Subcommittee on the 2025 – 2030 scope of work for CAP strategy No. 2 and No. 3 ([Presentation](#))

C4. Consider appointing additional commissioners to the building decarbonization ad hoc subcommittee

D. Reports and Announcements

D1. Reports and announcements from staff and Commissioners

E. Adjournment

At every Regular Meeting of the Commission, in addition to the Public Comment period where the public shall have the right to address the Commission on any matters of public interest not listed on the agenda, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during the Commission's consideration of the item.

At every Special Meeting of the Commission, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during consideration of the item.

If you challenge any of the items listed on this agenda in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Menlo Park at, or before, the public hearing.

Any writing that is distributed to a majority of the Commission by any person in connection with an agenda item is a public record (subject to any exemption under the Public Records Act) and is available by request by emailing the city clerk at jaherren@menlopark.gov. Persons with disabilities, who require auxiliary aids or services in attending or participating in Commission meetings, may call the City Clerk's Office at 650-330-6620.

Agendas are posted in accordance with Cal. Gov. Code §54954.2(a) or §54956. Members of the public can view electronic agendas and staff reports by accessing the city website at menlopark.gov/agendas and can receive notification of agenda postings by subscribing at menlopark.gov/subscribe. Agendas and staff reports may also be obtained by contacting the City Clerk at 650-330-6620. (Posted: 1/25/2024)



REGULAR MEETING MINUTES – DRAFT

Date: 10/18/2023
Time: 6:00 p.m.
Location: Teleconference and
City Hall Downtown Conference Room, 1st Floor
701 Laurel St., Menlo Park. CA 94025

A. Call To Order

Chair Hedley called the meeting to order at 6:03 p.m.

B. Roll Call

Present: Hedley, Kissel, Lin, McKenna, Pelegri-Llopart, Schmidt
Absent: Evans
Staff: Sustainability Manager Rebecca Lucky, Management Analyst II Ori Paz,
Management Analyst II Liz Tapia

C. Public Comment

None.

D. Regular Business

D1. Approve the September 20, 2023 Environmental Quality Commission meeting minutes (Attachment)

ACTION: Motion and second (McKenna/ Kissel), to approve the September 20, 2023 Environmental Quality Commission meeting minutes, passed 6-0 (Evans Absent).

D2. Review and discuss Climate Action Plan strategy goal No. 5: eliminate fossil fuels from municipal operations (Attachment)

Chair Hedley introduced the item.

Management Analyst II Ori Paz made the presentation.

The Commission discussed Climate Action Plan (CAP) strategy goal No. 5 eliminate fossil fuels from municipal operations.

ACTION: Motion and second (Schmidt/ Kissel), to prioritize the following:

- Fleet and building electrification
- Fleet highest mileage and end of life
- Fleet bidirectional charging
- Burgess pool electrification
- Continue with the Willdan GK12 program
- Explore additional microgrids for facilities and community resilience centers
- Explore battery storage programs

- Address the remaining 40% greenhouse gas (GHG) emissions from the municipal inventory beyond building and fleet electrification
 - Update the municipal GHG inventory
 - Make data accessible to show the City's ability to reach its goal by 2030 (e.g. countdown to success, such as fleet and water heater transition)
- passed 6-0 (Evans Absent).

The Commission took a recess at 7:31 p.m.

The Commission reconvened at 7:37 p.m.

- D3. Review and discuss participation in Peninsula Clean Energy Power Purchase Agreement Project to install photovoltaic system on various City buildings (Attachment)

Chair Hedley introduced the item.

Management Analyst II Ori Paz made the presentation.

The Commission received clarification from Peninsula Clean Energy.

The Commission discussed participation in Peninsula Clean Energy Power Purchase Agreement Project to install photovoltaic system on various City buildings.

ACTION: Motion and second to recommend City Council agree to participate in the Peninsula Clean Energy Power Purchase Agreement Project (Kissell/ Pelegi-Llopart), passed 6-0 (Evans absent).

- D4. Review and discuss Climate Action Plan strategy No. 1 Commission feedback from September 2023 meeting (Attachment)

Chair Hedley introduced the item.

The Commission discussed the prioritization list for CAP No. 1.

E. Reports and Announcements

- E1. Reports and announcements from staff and Commissioners

Chair Hedley reported on the Environmental Quality Commission annual Chair update to City Council on October 24.

Sustainability Manager Rebecca Lucky reported on their last day with Menlo Park October 19 and provided an update that the City Council directed staff to work with Peninsula Clean Energy as the administrator for the first half of the \$4.5 million in state funds for existing building electrification.

Management Analyst II Liz Tapia reported on zero emission landscape equipment incentive program progress, climate adaptation work on CAP No. 6 and the Climate Summit in South San Francisco on October 11.

Management Analyst II Ori Paz reported that the zoning ordinance amendments to facilitate electrification will be presented to City Council on October 24.

Commissioner McKenna reported on Building Decarbonization Subcommittee work, including streamlining building permitting, exploring reach codes for existing building and tenant protections.

Vice Chair Schmidt reported on Climate Adaption Subcommittee work including meeting with Cade Cannedy from Climate Resilience Communities leaders and City staff, progress on the Urban Forest Master Plan and the possibility of the school district creating a climate adaptation plan.

Commissioner Kissell reported that the electric vehicle (EV) Charging Subcommittee met with Peninsula Clean Energy to get directional information on strategies to increase residential EV charging.

F. Adjournment

Chair Hedley adjourned the meeting at 8:57 p.m.

Liz Tapia, Management Analyst II

A photograph of a grassy hill with a wooden fence in the foreground. Two people are visible in the distance on the hill. The sky is overcast.

2025-2030 SCOPE OF WORK FOR CLIMATE ACTION PLAN STRATEGY NO.5

CONTENTS

- Meeting goals and timeline
- Overview of Climate Action Plan (CAP) strategy No.5
- Available data
- 2020 and 2021 scope progress
- Policy background
- Incentives
- 2025 – 2030 scope of work ideas and discussion

MEETING GOALS AND TIMELINES

- Over the next several months the commission will be providing feedback to staff on possible ideas to explore for updating the 2025-2030 scope of work for each Climate Action Plan (CAP) strategy
 - City Council last approved a scope of work for each strategy in 2021, and remains part of the current implementation strategy along with their annual work plan prioritization
- A final staff recommendation will be presented to the commission next summer (2024), which will then proceed to city council for approval
- This is an opportunity to brainstorm on the scope of work for each strategy, allowing staff sufficient time to evaluate possible ideas from the feedback.
- A final scope of work will be presented to the commission next year

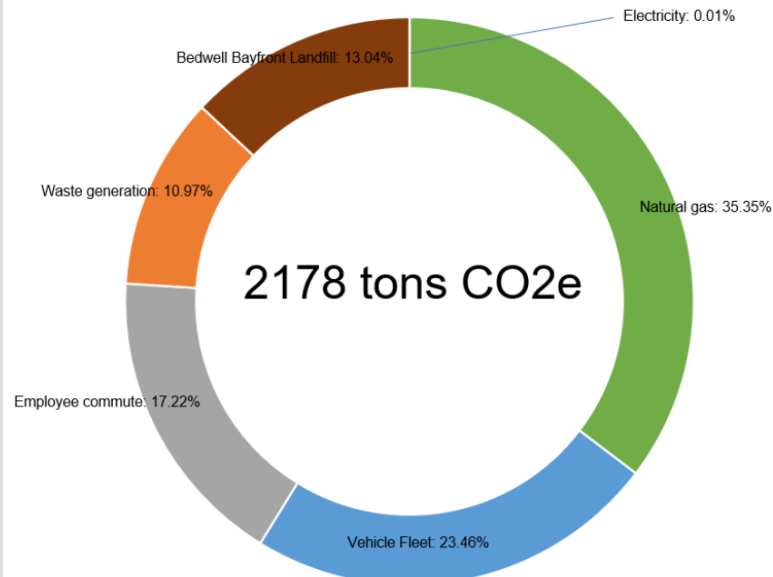
CAP STRATEGY NO.5

- Eliminate the use of fossil fuels from municipal operations

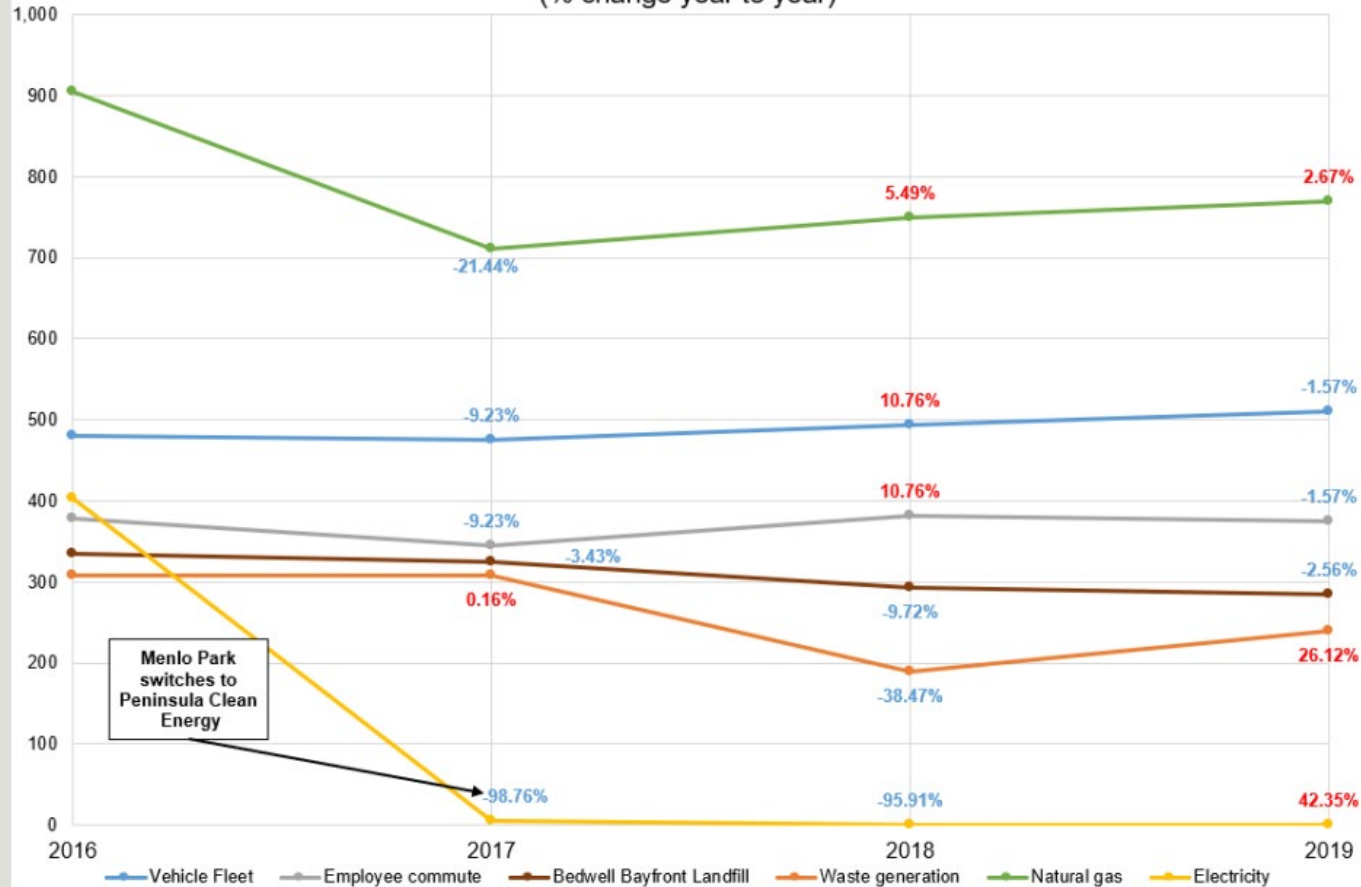
- Why the goal was set
 - Opportunity to show leadership in decarbonization
 - Test equipment and practices to understand impacts

- How we are tracking it
 - Facilities emissions reductions (natural gas usage in buildings)
 - Fleet electrification (fossil fuel miles traveled)

Menlo Park Municipal greenhouse gas emissions 2019



Municipal greenhouse gas emissions 2016-2019 (% change year to year)



CAP NO.5 2020 & 2021 SCOPE

The City owns, operates, and manages an array of equipment and facilities to provide the community with specialized services. To reduce related emissions in the delivery of these services, the following direction was given by City Council:

- Utilize current resources and available budget toward eliminating fossil fuels in building the new Menlo Park Community Campus
- Replace fossil fuel appliances/assets at the end of life with non-fossil fuel options unless infeasible
- Pilot program to transition landscaping equipment from gas to electric



CAP NO.5 2020 & 2021 SCOPE PROGRESS



- Building capacity across the organization (Community Development, Community Services, Public Works, Police Department)
- Fully electric Menlo Park Community Campus (name pending public process) scheduled for operation 2024
- Replaced 9/15 gas water heaters with heat pumps- \$110K at no cost to the city
- Evaluating procurement options to electrify remaining facilities to maximize cost savings and minimize impact on staff capacity (e.g. Govt code 4217)



CAP NO.5 2020 & 2021 SCOPE PROGRESS CONTINUED



- Participating in PCE solar for public buildings program
- Purchased electric leaf blowers and string trimmers and installed battery infrastructure (leaf blower use now 80 percent electric)
- Tesla pilot informed vehicle needs and EV charging plans, Chevrolet Blazer EV approved for phase two PD pilot
- Renewable diesel purchased for all equipment reducing emissions by 65-90 percent
- EV first vehicle purchasing policy continues to replace fleet vehicles with EVs

POLICY BACKGROUND

The City Council adopted the following policies related to reducing emissions from City operations:

1. Sustainable fleet policy
2. Climate Action Plan (CAP No. 5)
3. Zero Emission Landscape Equipment Ordinance

There are also state policies driving fleet electrification and new Bay Area Air Quality Management District rules eliminating gas water heaters starting 2027

INCENTIVES

- Incentive landscape is changing and will continue to change rapidly
- Federal, state, regional government and energy provider incentives available
 - PCE Fleet EV charging technical assistance ~\$40K
 - PG&E Fleet EV charging - tbd
 - Willdan GK12 heat pump water heater replacement program \$110K
 - PCE solar for public buildings – tbd
 - PCE new loan and additional incentive program to electrify city operations
- Likely to continue in order to advance the transition to electric equipment

DISCUSSION STRUCTURE FOR CAP NO.5 2025-2030



GETTING THE MOST WITH CURRENT RESOURCES AND BUDGET



- Focus on high impact remaining fleet/facility electrification between 2025 and 2030
- Determine where the City has influence, tools, or ability/authority to reduce emissions, operating costs and establish infrastructure for future electrification/resilience
- Aim for highest value of staff resources and city budget that would result in greater GHG reductions



POSSIBLE IDEAS FOR EQC DISCUSSION



- Facility electrification and resilience
- Fleet electrification
- Employee commute
- Landfill flare reductions



THANK YOU



PENINSULA CLEAN ENERGY SOLAR FOR PUBLIC FACILITIES OVERVIEW

October 18, 2023 Environmental Quality Commission Meeting

AGENDA

- PCE program overview
- Comparative economics
- City facilities overview
- Program sequence
- Discussion



PENINSULA CLEAN ENERGY OVERVIEW

- Peninsula Clean Energy (PCE) is San Mateo County's not for profit locally led electricity provider
- Mission: To reduce greenhouse gas emissions by expanding access to sustainable and affordable energy solutions



Peninsula Clean Energy provides electricity from clean energy sources at lower rates than PG&E.

PG&E owns the power lines and delivers the power we generate. They send a consolidated bill.

As a **customer** of Peninsula Clean Energy, you are helping the environment and saving money.

Source: Peninsula Clean Energy

PCE SOLAR FOR PUBLIC BUILDINGS PROGRAM

Goal:

- Accelerate renewable energy at local government facilities to reduce energy costs and meet sustainability goals (Starting cohort #2)

Benefits:

- No upfront cost
- PCE handles design, procurement install, and maintenance
- Solar PV systems for city buildings through a power purchase agreement (PPA)
- The PPA term will run for 20 years, the City will have the option to extend, purchase the system, or have the panels removed
- Aggregation of projects brings vendors to the table
- Transparent with agency on financing details

HOW IT WORKS

- PCE installs and owns solar PV systems on city buildings/carports
- The electricity is sent to PCE customers through the grid
- The City buys electricity from PCE
- PCE discounts the electricity price for the amount produced by the systems on City property

COMPARATIVE ECONOMICS: GRID VS SOLAR PPA

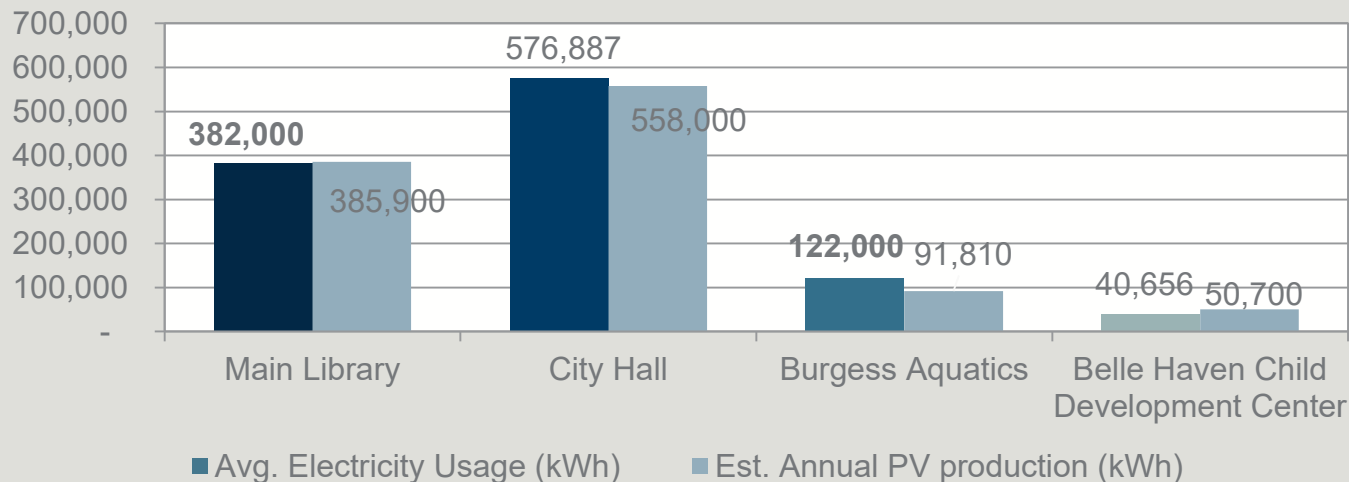
- PCE projecting a 4% annual electricity cost increase for current energy charges
- CPUC study in 2019 projected annual rate of escalation of 3.7% between 2020-2030
- In 2023, PG&E announced an **18% rate increase, and 5% annual increases through 2026**
- Additional factors that might drive up rate of escalation:
 - Power capacity constraints
 - Investment in grid infrastructure to support vehicle and building electrification
 - Grid hardening and underlining for wildfire mitigation
- Solar PPAs offer a hedge against rising energy rates

CITY FACILITIES

Facility	System Size
Main library	229.1 kW
City hall	379.0 kW
Burgess aquatic center	54.3 kW
Belle Haven child development center	33.1 kW

ESTIMATED SOLAR PV PRODUCTION

- Preliminary system sizes would generate enough electricity to offset most city usage
- Electricity would be sent to the grid, and purchased from PCE



CURRENT STATUS

- PCE submitted preliminary interconnection applications ahead of the NEM 3.0 start date (April 2023)
 - Three years to complete the projects to stay under NEM 2.0 (April 2026)
- The City included budget for this fiscal year CIP to reroof facilities to improve solar PPA rate
 - Main Library, City Hall, City Council Chambers, Belle Haven Child Development Center
 - City must complete projects ahead of solar installations
- PCE selected vendor will work to modify preliminary designs to roof-mounted systems
- City will consider carport system if roof-mounted not possible

PROGRAM SEQUENCE

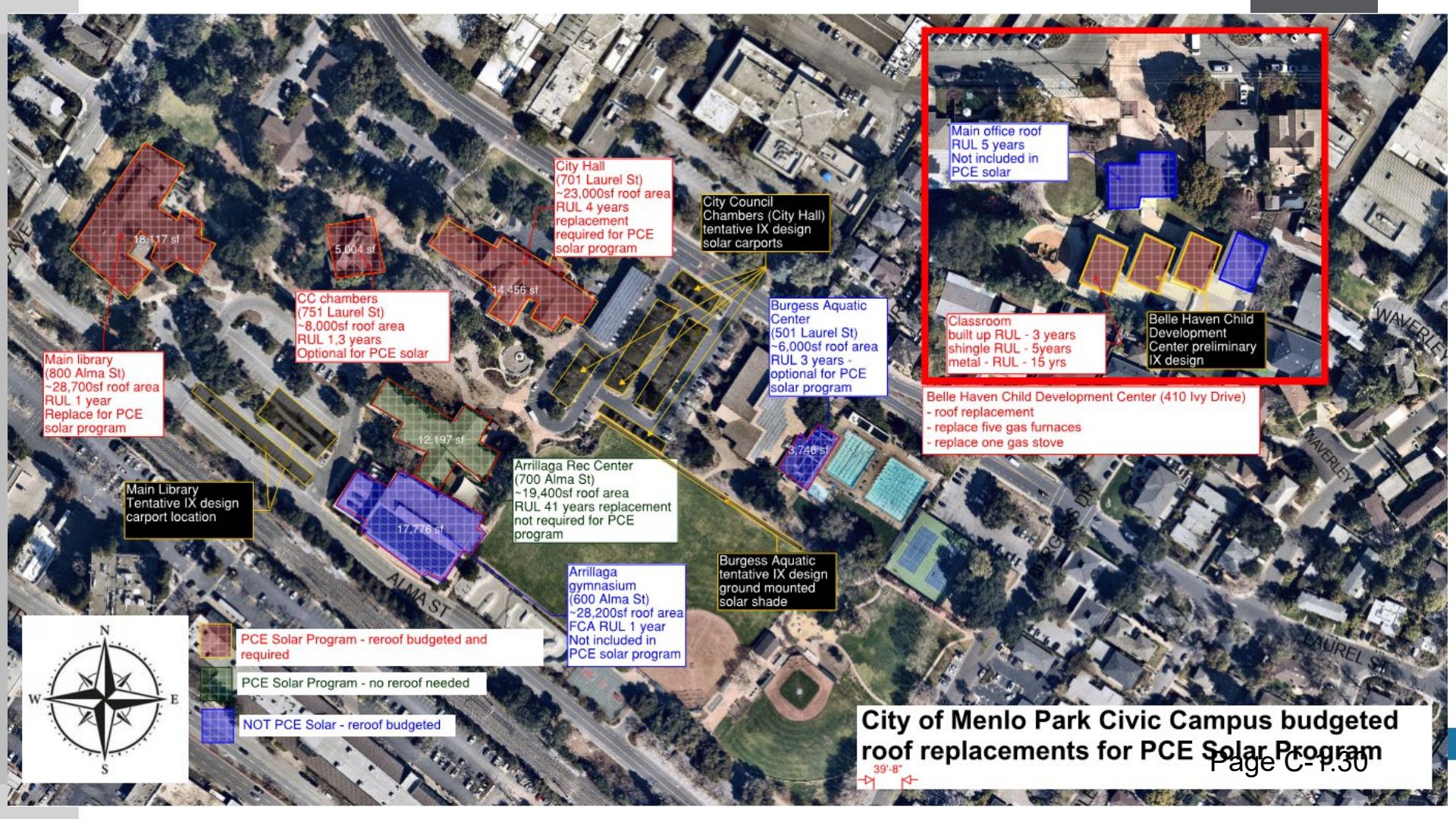
- ~~City submitted application (Jan 2023)~~
- ~~PCE consultant came for 16 site assessments (Feb 2023)~~
- ~~PCE submitted 4 preliminary interconnection applications ahead of the NEM 3.0 start date (April 2023)~~
 - ~~Three years to complete the projects to stay under NEM 2.0 (April 2026)~~
- ~~City included budget for this fiscal year CIP to reroof facilities to improve solar PPA rate (July 2023)~~
 - ~~Main Library, City Hall, City Council Chambers, Belle Haven Child Development Center~~
 - ~~City must complete projects ahead of solar installations~~
- **Program discussion with Environmental Quality Commission (Oct 2023)**
- City evaluates general PPA terms (Nov 2023)
- PCE to select vendor to design, build and maintain systems (Dec 2023)
- Provider vendor to confirm final design (Jan 2024)
- City to review and approve final pricing (Feb 2024)
- If approved, construction of reroofs and system (April 2024)
- Operation begins (2025)



POSSIBLE ADVICE TO THE CITY COUNCIL

The EQC could recommend the City Council participate in the program.

DISCUSSION



Main library
(800 Alma St)
~28,700sf roof area
RUL 1 year
Replace for PCE
solar program

CC chambers
(751 Laurel St)
~8,000sf roof area
RUL 1,3 years
Optional for PCE solar

City Hall
(701 Laurel St)
~23,000sf roof area
RUL 4 years
replacement
required for PCE
solar program

City Council
Chambers (City Hall)
tentative IX design
solar carports

Burgess Aquatic
Center
(501 Laurel St)
~6,000sf roof area
RUL 3 years -
optional for PCE
solar program

Main office roof
RUL 5 years
Not included in
PCE solar

Classroom
built up RUL - 3 years
shingle RUL - 5years
metal - RUL - 15 yrs

Belle Haven Child
Development
Center preliminary
IX design


Belle Haven Child Development Center (410 Ivy Drive)
- roof replacement
- replace five gas furnaces
- replace one gas stove


Main Library
Tentative IX design
carport location

Arrillaga Rec Center
(700 Alma St)
~19,400sf roof area
RUL 41 years replacement
not required for PCE
program

Burgess Aquatic
tentative IX design
ground mounted
solar shade

Arrillaga
gymnasium
(600 Alma St)
~28,200sf roof area
FCA RUL 1 year
Not included in
PCE solar program

 PCE Solar Program - reroof budgeted and required

 PCE Solar Program - no reroof needed

 NOT PCE Solar - reroof budgeted



City of Menlo Park Civic Campus budgeted roof replacements for PCE Solar Program



September/October EQC Meeting brainstorming ideas for CAP strategy No.1 scope of work 2025-2030

The commission had five votes to allocate to the brainstorming ideas below to prioritize the list. The ideas that are bolded below received the most support to date.

1. **Reconsider the burn-out regulation for adoption that meet legal constraints, feasibility and equity concerns for all building types (9)**
2. **Explore electrifying commercial buildings (9)**
 - a. **861 commercial properties versus 9,448 residential (residential equals 10x the outreach for half the impact)**
 - b. **Explore ways to obtain email addresses from property owners**
 - c. **Define how much of the commercial building is electrified – common definition**
 - d. **Turnkey installation, zero interest loans, and incentive package for commercial that is similar to residential offerings**
 - e. **Track and communicate the results of reducing the 861 properties natural gas reduction**
3. **Instant permit process for same location water heater replacements that would involve mailing pre-approved permits to building owners in Menlo Park (4)**
4. **Explore a turnkey partner to electrify existing multifamily buildings (3)**
5. **Allocate funding and or support to improve building efficiency (3)**
6. Consider possible funding sources for electrification (2)
 - a. Carbon tax for natural gas usage (e.g. City of Boulder) to support the community's transition from gas to electric that is equitable and progressive
 - b. Priority based budgeting to support the community's transition from gas to electric
 - c. Considering bonds to support the community's transition from gas to electric
 - d. Rethink the carbon offsets in the Bayfront development area to support the community's transition from gas to electric
7. Explore commercial building regulations or standards (e.g. Reach Codes) with an emphasis on the buildings that have the largest emissions (e.g. life science buildings). (1)
8. Consider energy or GHG budgets for commercial sector that starts with voluntary reporting but options to require energy or GHG reductions in future years. Allows the city to collect data and contact information. (1)
9. Marketing and promotion of the direct install and incentive programs available (e.g. PCE direct install program, federal tax credits, etc.) using printed material to collect email addresses to facilitate ongoing communication (1)
10. Exploring rental protection policies to ensure that equipment upgrades keep rental rates affordable and do not displace residents (1)
11. Pilot a block by block electrification project (1)

Not voted on

12. Permit and building inspection leniency and amnesty program given that there may be unpermitted work or code violations that are discovered through the building

electrification permit and inspection process; this would enable greater participation in electrification incentive programs that require building permit for eligibility

13. Bulk buy electrification equipment to reduce costs

14. Use the permitting counter as an education hub

15. Electrify community hubs where the public gathers (e.g. schools, retirement facilities, key grocery stores)



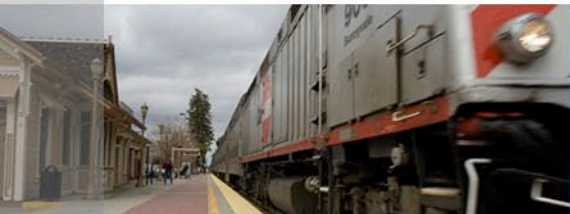
PD TESLA PATROL PILOT UPDATE

January 31, 2024 Environmental Quality Commission special meeting





- Why explore EVs for patrol?
- Fleet overview
- History of sustainability in the Police Department
- Tesla Pilot Overview
- Findings
- Next steps



WHY EXPLORE ELECTRIC VEHICLES?



EVs eliminate emissions from vehicles

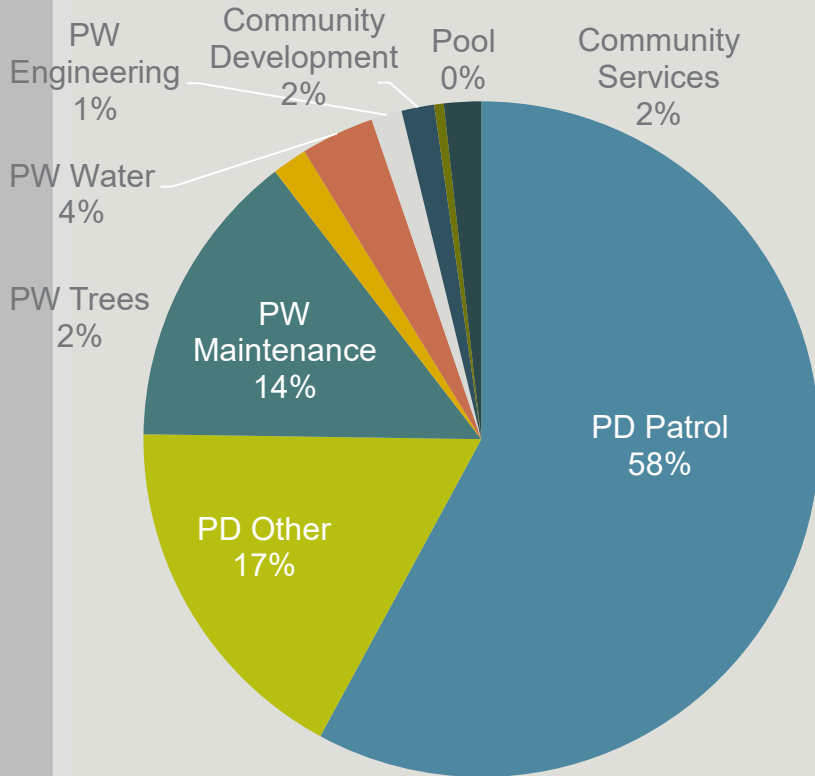
Improve air quality

Meet CAP goals

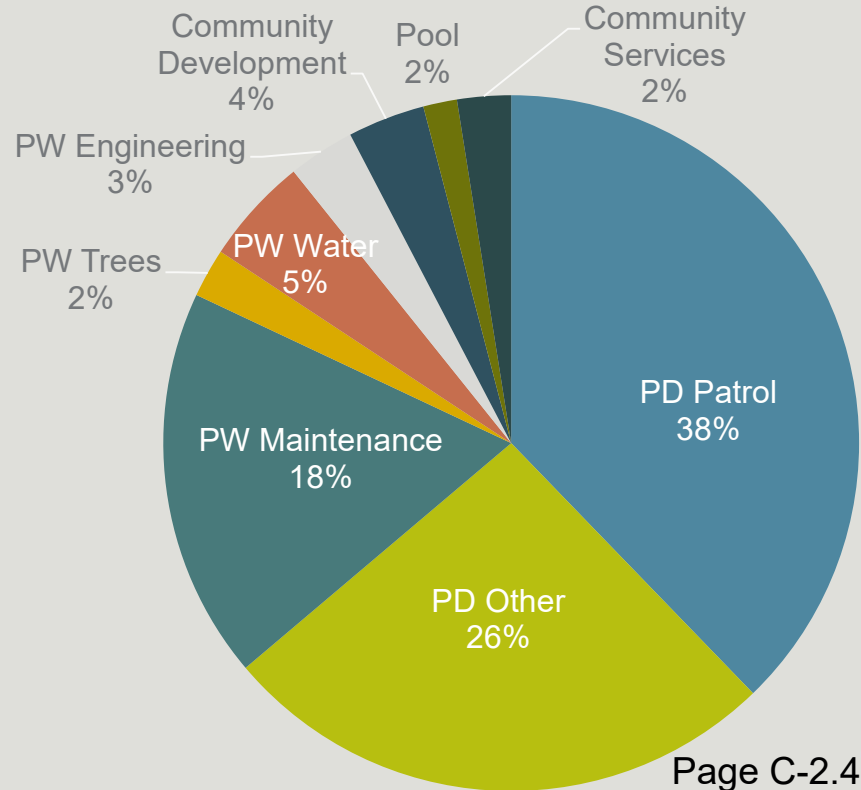
Save money



2022 EMISSIONS (293MTCO2E)



2022 MILEAGE (332,637 MILES)





PATROL VEHICLE EMISSIONS EXPLAINED



24-hour Coverage



Idling for readiness



Urgency in motion



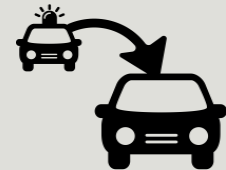
Vehicle emissions



Community presence

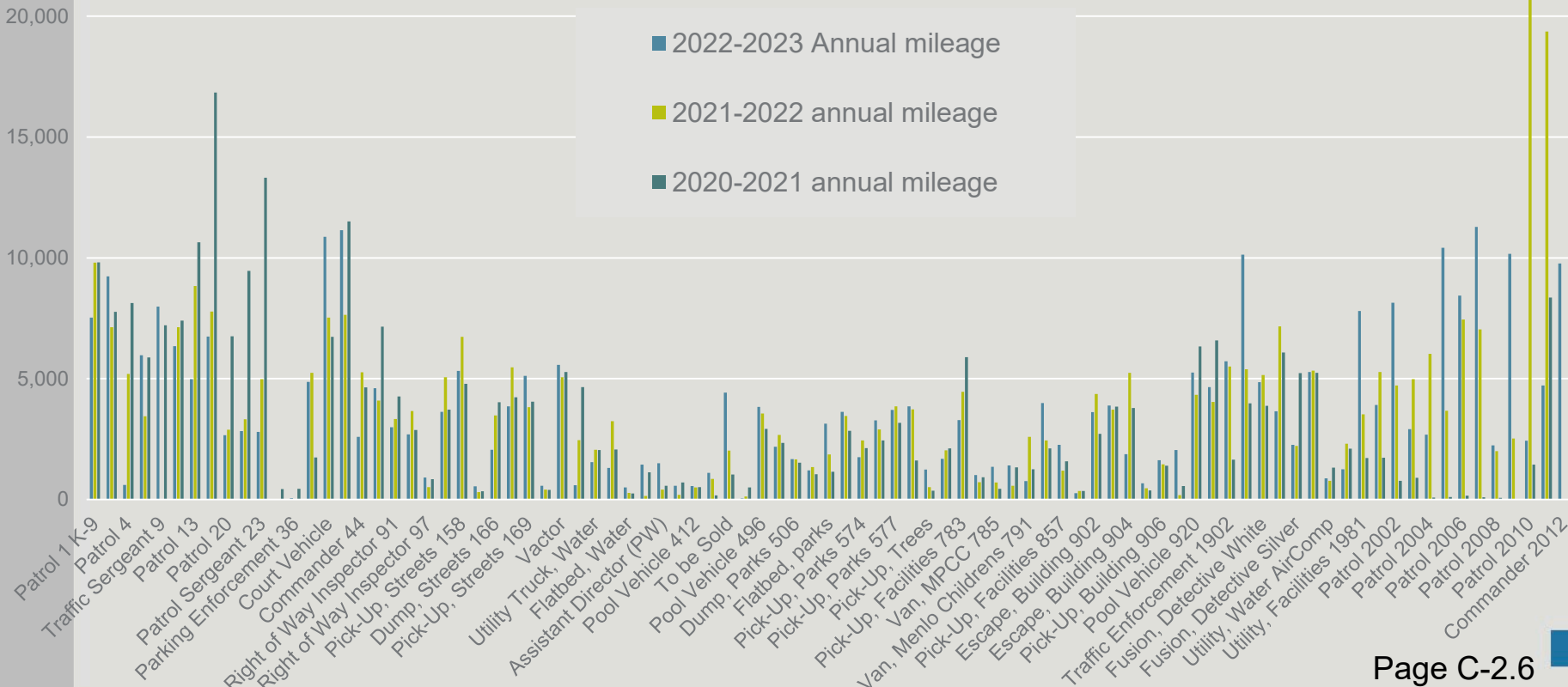


Responding to calls



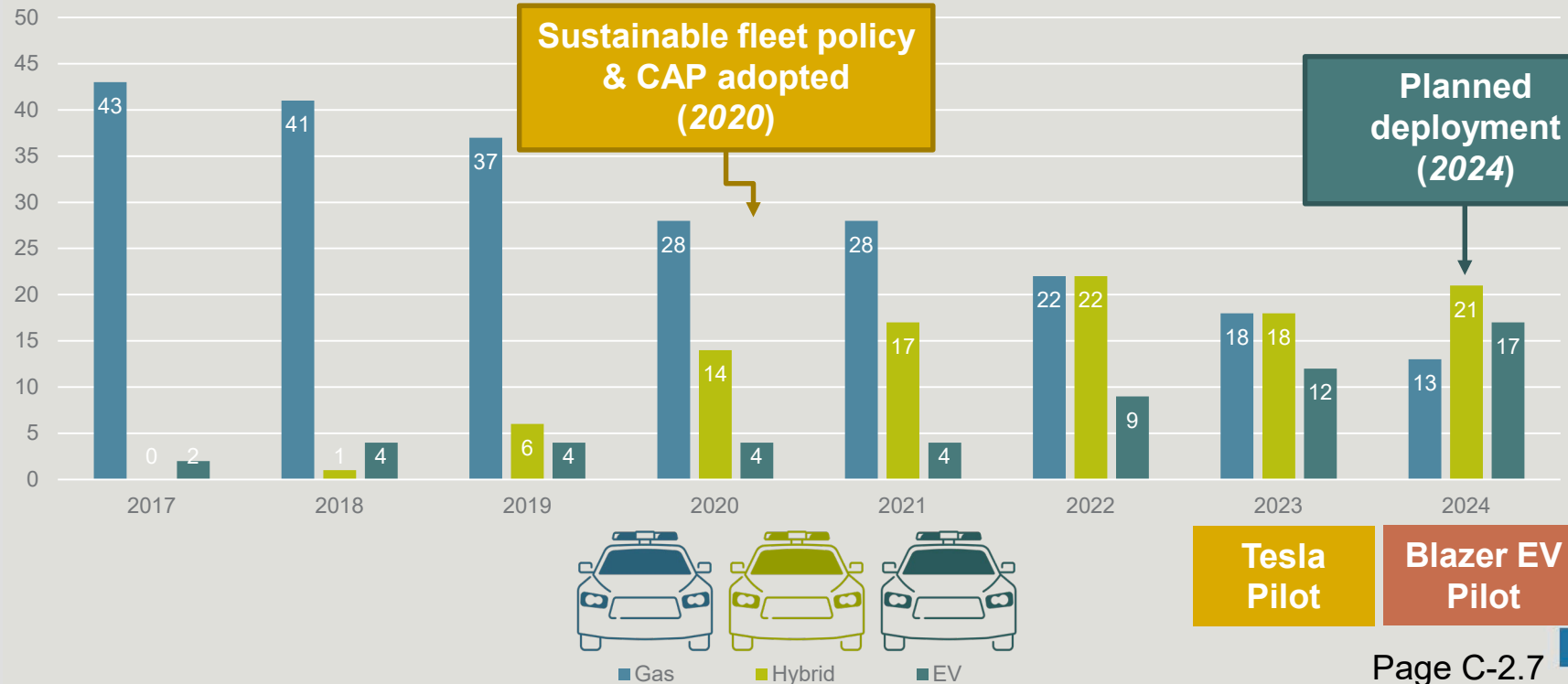
Vehicle pursuit

ANNUAL MILEAGE 2020 – 2023





HISTORY OF SUSTAINABILITY IN THE POLICE DEPARTMENT





TESLA PILOT OVERVIEW

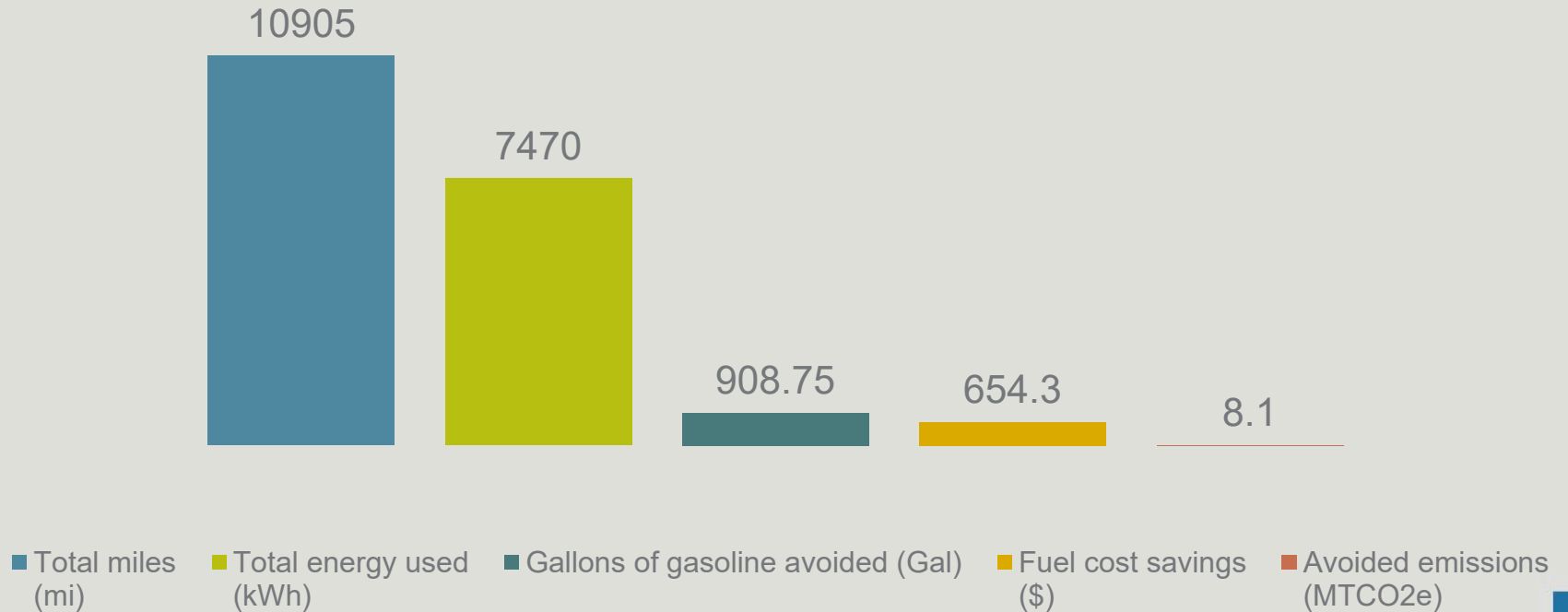


- **Objective:**
 - Evaluate whether EVs can work for patrol use
 - Determine vehicle and infrastructure needs
- **Duration:**
 - Jan 1, 2023 – Jan 1, 2024 (one year)
- **Work groups:**
 - Group 1 - full shift – assigned EV
 - Vehicle A – full 12-hour day shift 6:00 A.M. – 6:00 P.M.
 - Vehicle B – full 12-hour “mids” night shift 6:00 P.M. – 6:00 A.M.
 - Group 2 – flexible/on demand
 - Vehicle C - available on demand/replace A/B if vehicle down
- **Data collection:**
 - Quantitative data (charge/fuel time, miles traveled, down time etc.)
 - Qualitative data (vehicle space, capability, comfort, etc.)
 - Other data (outfitting costs/weight, training hours, maintenance costs/hours, service responses, GHG impacts)

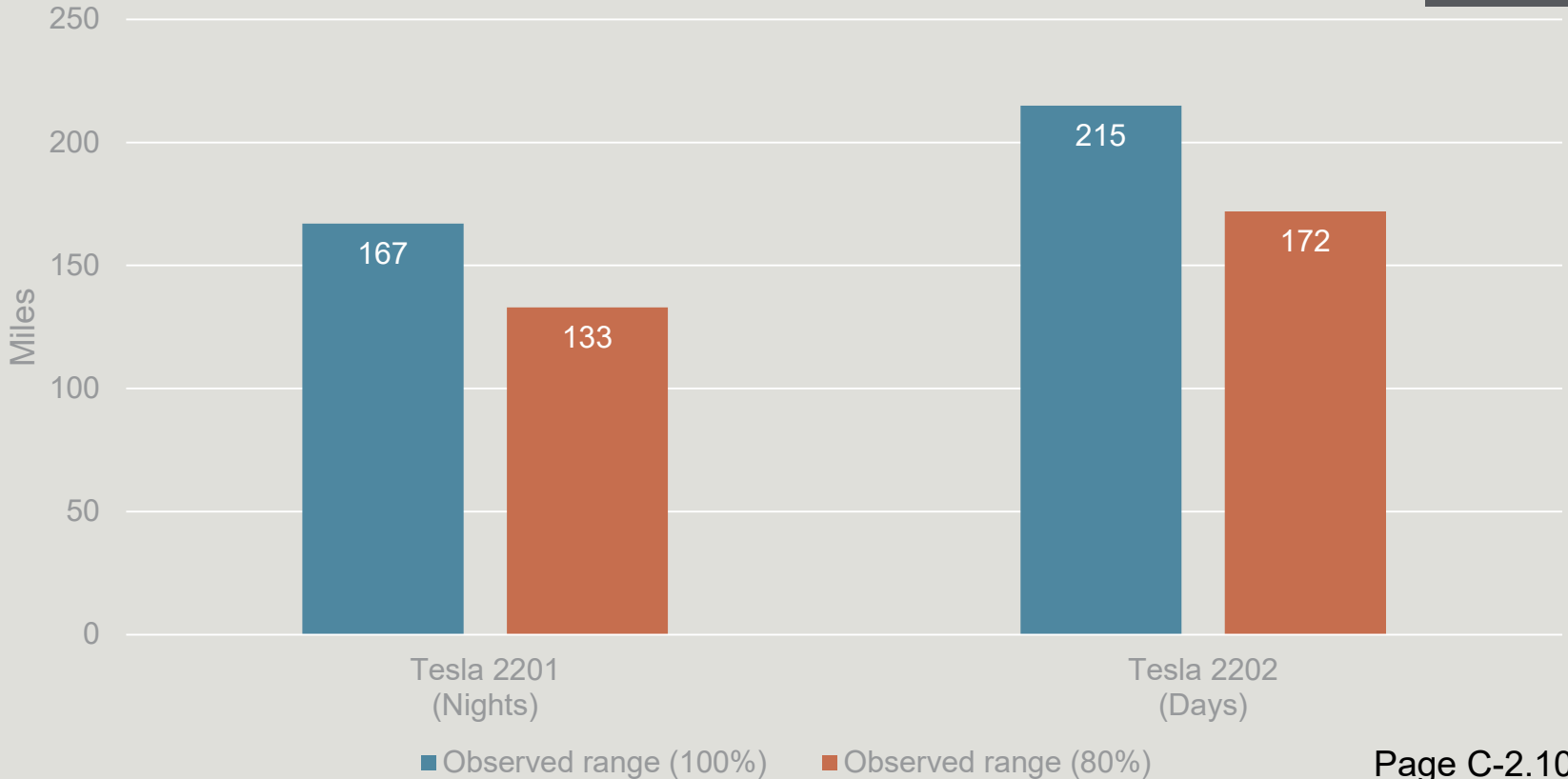




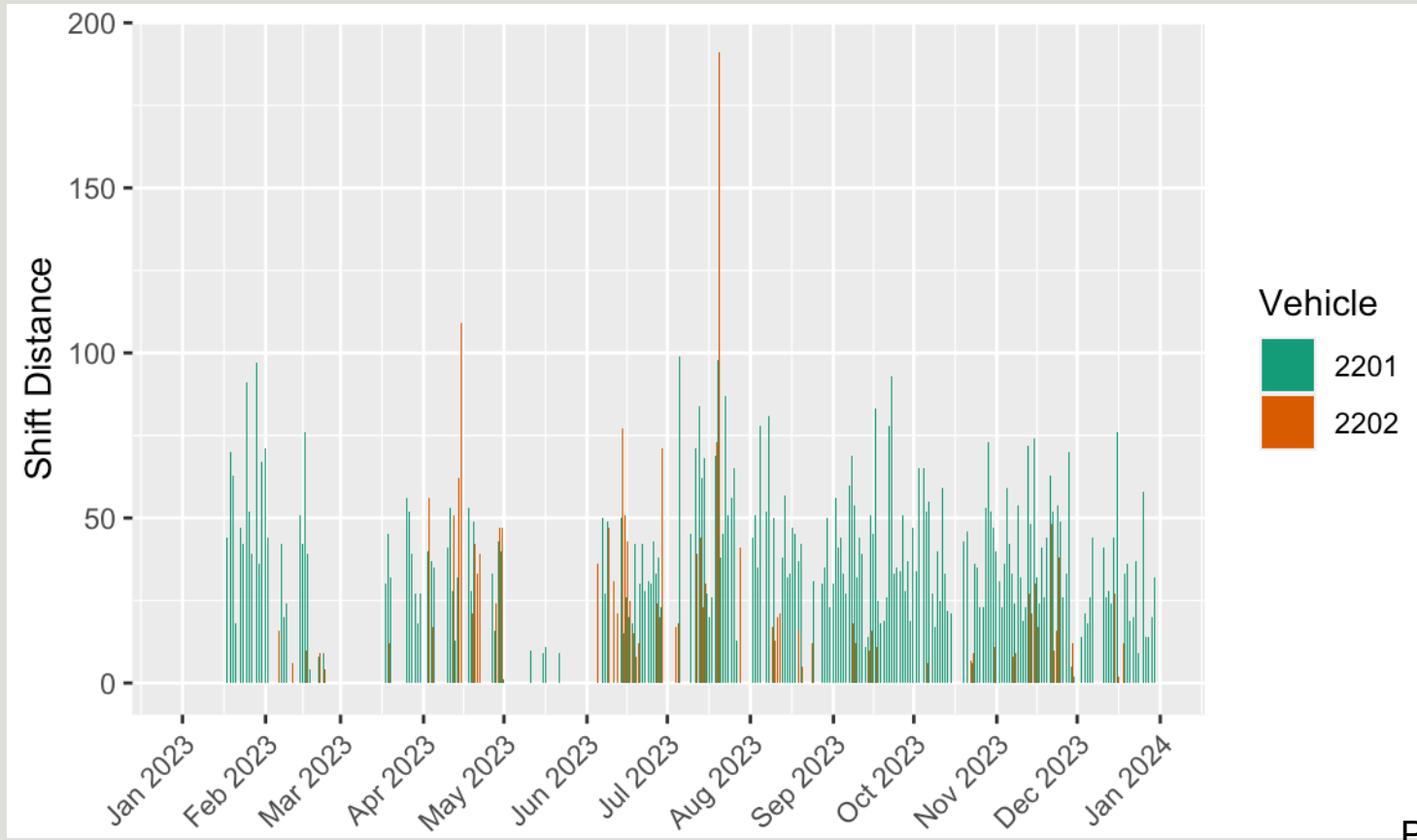
FINDINGS: TESLA DATA TOTALS



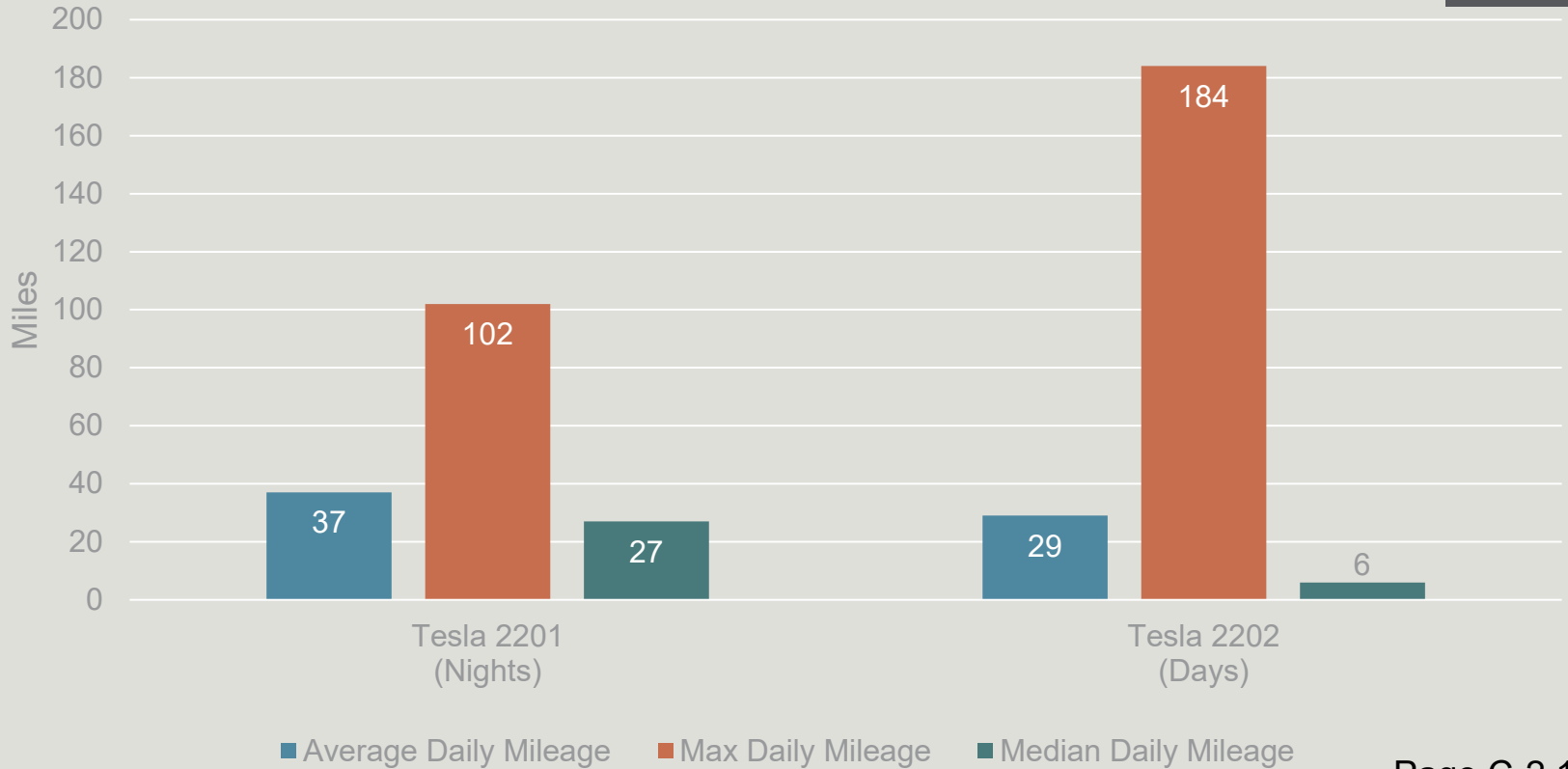
EV PATROL VEHICLE RANGE



EV PATROL VEHICLE SHIFT MILEAGE



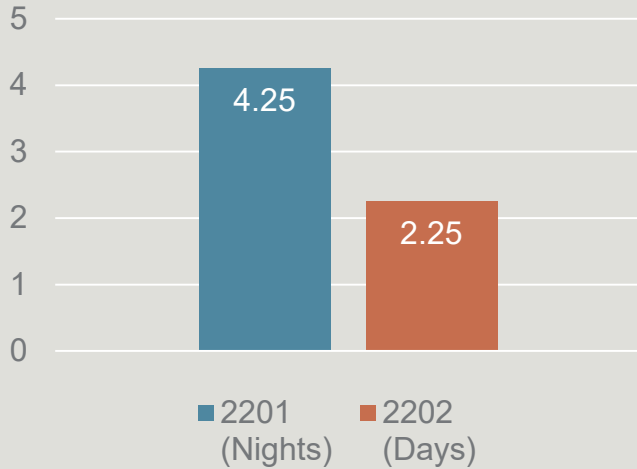
EV PATROL VEHICLE DAILY MILEAGE



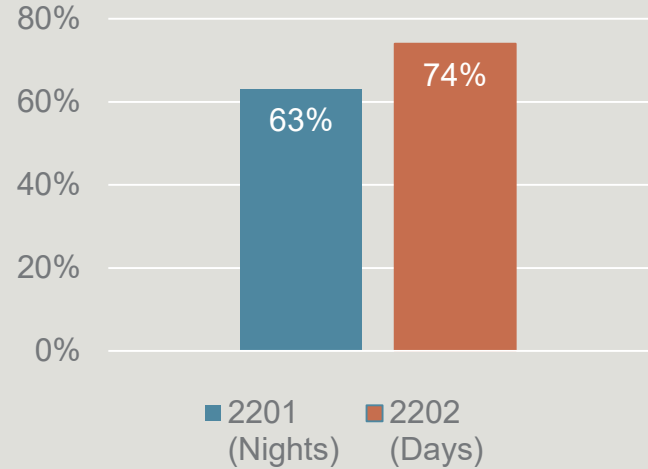
EV PATROL VEHICLE CHARGE DATA



Average daily charging hours



Average battery start (%)



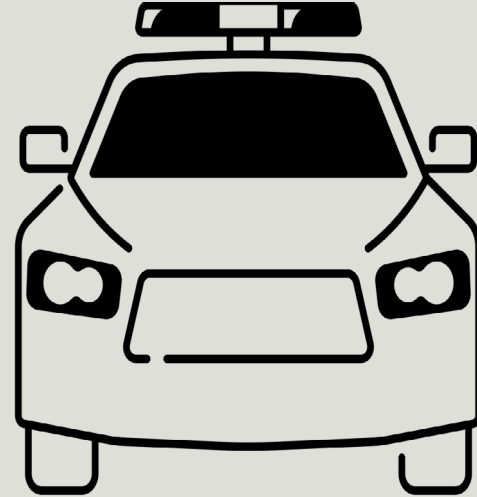


FINDINGS: VEHICLE DOWNTIME



Tesla Y

City work	8 hours
Outside	15 days



Explorer

City work	7.5 hours
Outside	5 days



FINDINGS: OUTFITTING COSTS



Tesla Y	\$64,270
Outfitting	\$38,482
Total	\$102,752

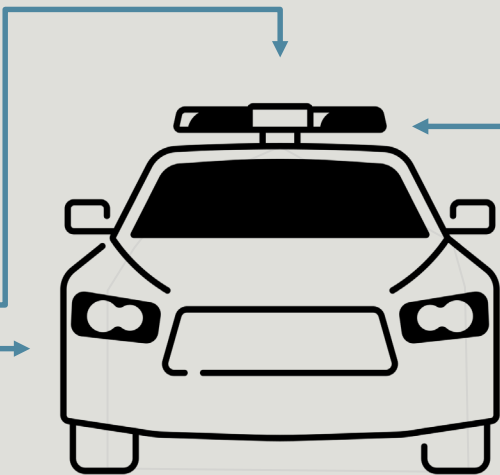


Explorer	\$51,620
Outfitting	\$21,224
Total	\$72,844

TESLA OUTFITTING

Comms
(Computer tablet,
antenna, radio)
\$4,562

**Ballistic
door panels**
\$7,500



Safety
\$25,000

Graphics
\$710

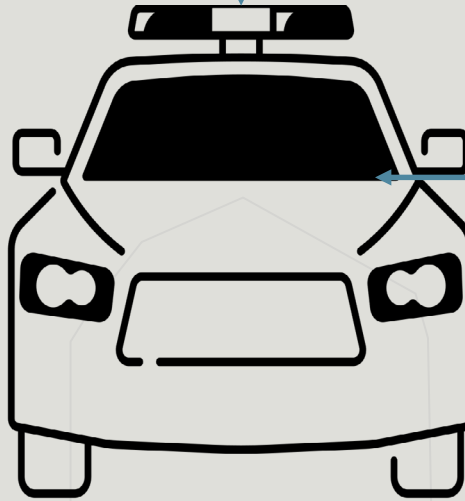
**Wheel
covers**
\$300

Vehicle	\$64,270
Outfitting	\$38,782
Total	\$103,052

HYBRID EXPLORER OUTFITTING

Comms
(Computer, antenna, radio)
\$0 rollover
~\$9,500 new

Ballistic door panels
\$0 standard



Safety
\$20,514

Graphics
\$710

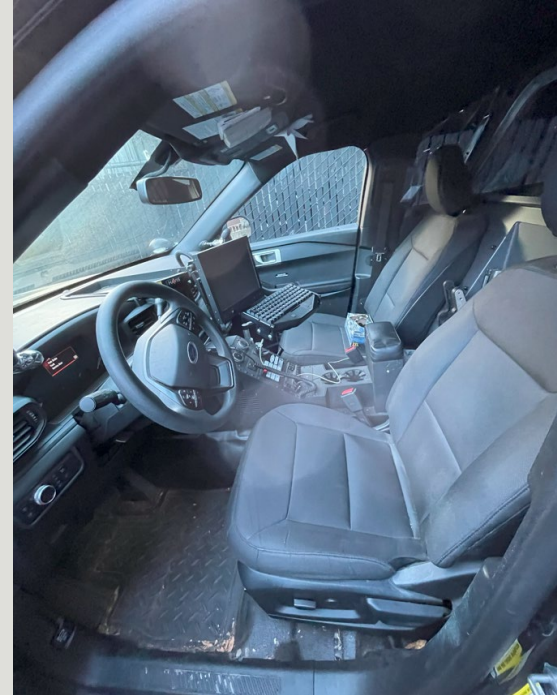
Wheel covers
\$0

Vehicle	\$51,620
Outfitting	\$21,224
Total	\$72,844

DRIVER'S SEAT CONSTRAINTS

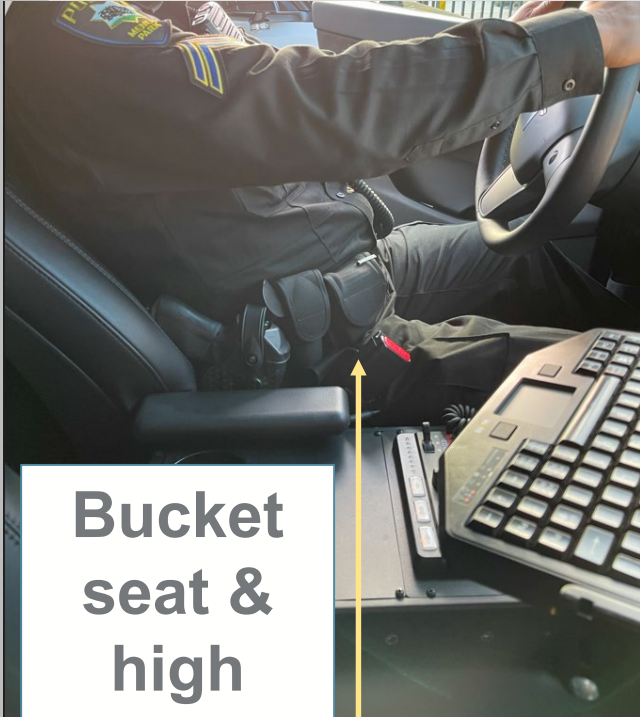


TESLA



EXPLORER

SEAT CONSTRAINTS CONTINUED

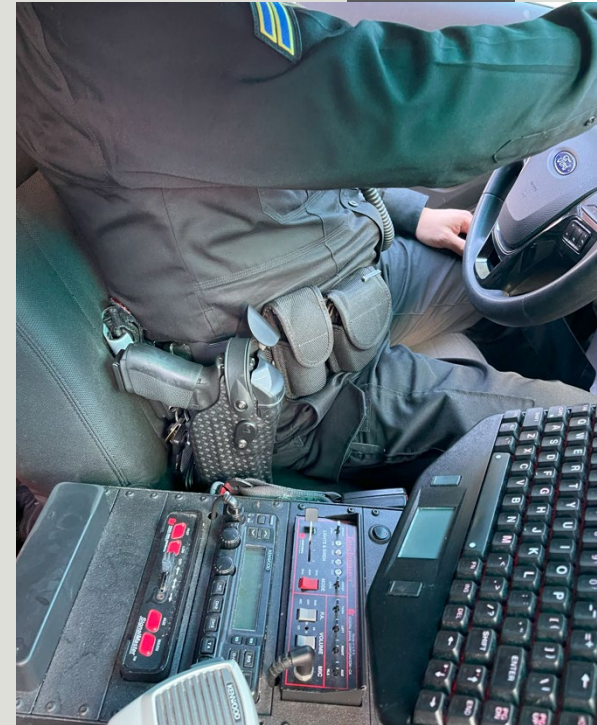


Bucket
seat &
high
console

TESLA



Duty belt
width
difficult
to fit



EXPLORER

REAR SEAT CONSTRAINTS

Limited
rear seat
space



TESLA



EXPLORER

REAR STORAGE CONSTRAINTS

Limited gear space

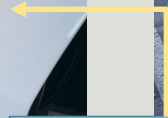


TESLA



EXPLORER

DOOR ACCESS



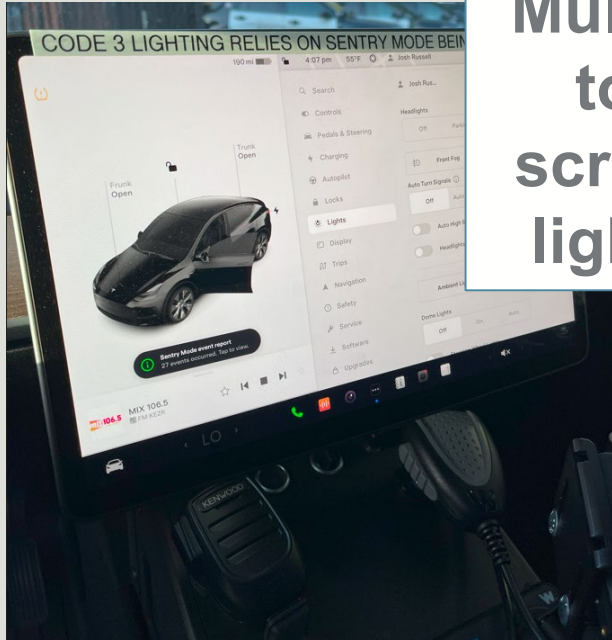
Door
difficult
to open



TESLA

EXPLORER

LIGHT CONTROLS



Multi-step
touch
screen vs
light dial



TESLA

EXPLORER

VEHICLE HEIGHT



TESLA

**Low Tesla
vehicle
height**



EXPLORER



FINDINGS SUMMARY

- Operational capabilities
 - Capable of typical shift mileage on full charge
 - Good acceleration and maneuverability on road
 - Low vehicle can't go over curbs/off road
 - Charging schedule and additional chargers needed for new EVs
 - Faster chargers needed for 24hr vehicle use
- Outfitting challenges
 - Delivery delays
 - Downtime due to connectivity/comms
 - Radio issues
 - Digital key limits
 - Lighting controls
 - Disable voice commands
 - High console height/seat
 - Touch screen controls/limitations
 - Space constraints for gear, personnel, and prisoners
- Officer safety concerns
 - Weapon access restricted in seat
 - Lights timing out at night
 - Lighting controls at night
 - Self-closing doors
 - Door latch/button difficulties
 - Self-locking timer or not locking if phone inside
 - Delayed shifting/start
 - Autopilot interference



NEXT STEPS



- Provide informational item report to City Council
- Continue vehicle use
- Outfit and deploy Chevrolet Blazer EV for patrol
- Install new EV charging infrastructure



THANK YOU

CAP 2 and CAP 3

Subcommittee Recommendations

Electric Vehicle Ad Hoc Subcommittee

Scope: Support CAP goals 2 & 3 by

- 1) Researching grants (workforce, education, and infrastructure) that could be tracked over the long term
- 1) Collecting additional ideas on implementation
- 1) Identifying partners to support the city's EV and EV charging infrastructure goals

Duration: Five (5) months with an expected report to the EQC in December 2023/January 2024

Commissioners: Kissel, Schmidt

Climate Action Plan Goal	#	Description	2030 GHG Reduction (tons/yr)
Set citywide goal for increasing EVs and decreasing gasoline sales	2	Announce and promote goals of: 1) Increasing the purchase of all new vehicles to be electric by 2025 and 2) Reducing gasoline sales each year by 10%, based on the total reported in 2018. Track progress on both goals publicly on an annual basis	<7,120*
Expand access to EV charging for multifamily and commercial properties	3	Install or assist building owners in installing EV chargers throughout the City, siting them preferably where they will be used during daylight hours (when solar electricity is abundant on our grid) and also where residents of multi-family housing can access them. Current project to explore and evaluate policy options for existing multifamily properties	7,370* <13,000* for multifamily

CAP Progress Reports - 2021 + 2023*

40% of Menlo Park's population are multifamily property residents. Less than 1% have access to at-home charging

In **Fall 2020**, city staff completed an electric vehicle charging gap analysis to identify barriers to accelerate zero-emission (specifically full battery electric) vehicle adoption

- Key finding - Adoption rates are closely linked to access to at-home charging
 - Not typically a problem for single-family homes, problematic for multifamily properties
- Several public EV charging spaces available in Menlo Park, but located at a limited number of sites
 - Primarily on Facebook campus and/or other public locations that are not convenient for overnight charging
- A severe deficiency of on-site EV charging infrastructure at multifamily properties
 - Analysis found less than 2.5 percent of existing multifamily properties have EV charging available at or near (within 0.25 miles) their respective locations

In **August 2022**, the City Council approved a permit fee waiver and credit program for existing building projects that involve EV charging. The 2022 building code update that was adopted by the City Council in November 2022 included enhanced EV charging requirements for new (not existing) multifamily and commercial developments. Implementation began Jan. 1.

Marketing efforts have had a small impact. To date, six condo properties in Menlo Park have begun to install a small amount of EV chargers. Rental apartments with shared parking have had little to no participation.

Next steps from 2021 + 2023 reports

Subcommittee recommendations
align with 2021 report

Oct 2021 - Continue to monitor and track incentive penetration for multifamily properties in Menlo Park by tracking:

- Number of new electric vehicle charging stations installed at multifamily and commercial properties
- Participation in regional funding programs

Staff evaluated city permit data. Relevant permits were identified as alterations or additions which specified installation of EV charging stations or infrastructure (i.e., electrical upgrades, wiring, etc.).

- Data limitation(s) and/or consideration(s): Level 1 charger installation (120v household plug) may not be included if no electrical upgrade (permit) was required.
- Participation in regional funding programs was reported to the City by Peninsula Clean Energy

Implement an additional Menlo Park incentive for multifamily properties to install EV charging stations. Market and educate multifamily property owners about EV charging and available incentives

May 2023 - City may want to consider a similar approach to the City of San Carlos which offers a matching incentive to PCE's EV charging rebate for existing multifamily properties

City Council directed that staff resources be used to monitor the effectiveness of state and regional charging infrastructure incentives, and the City will promote / market the incentives to multifamily property owners using existing databases and communication mediums

Summary of subcommittee's current recommendations

1. Focus on apartments (especially larger complexes), small businesses, and city buildings

- a. Create an inventory of opportunities and measure progress

1. Focus on EV charging, not EV purchases

- a. Leverage partners to prompt EV purchases
- b. Focus on L1 & L2 chargers, not DC Fast Chargers

1. Focus on informing stakeholders of current incentives and benefits

- a. Create an outreach campaign that emphasizes current incentives (FOMO)
- b. Find potential partners for L1 & L2 charging
- c. Utilize a wider variety of grants

Recommendation 1

Focus on apartments, small businesses, and city buildings

Exclude single-family homes and condos

Sufficient incentives and information available to potential EV purchasers

EV owners have sufficient motivation and information to get their own chargers if they need them

Condos too complex to get HOA agreement on moving forward

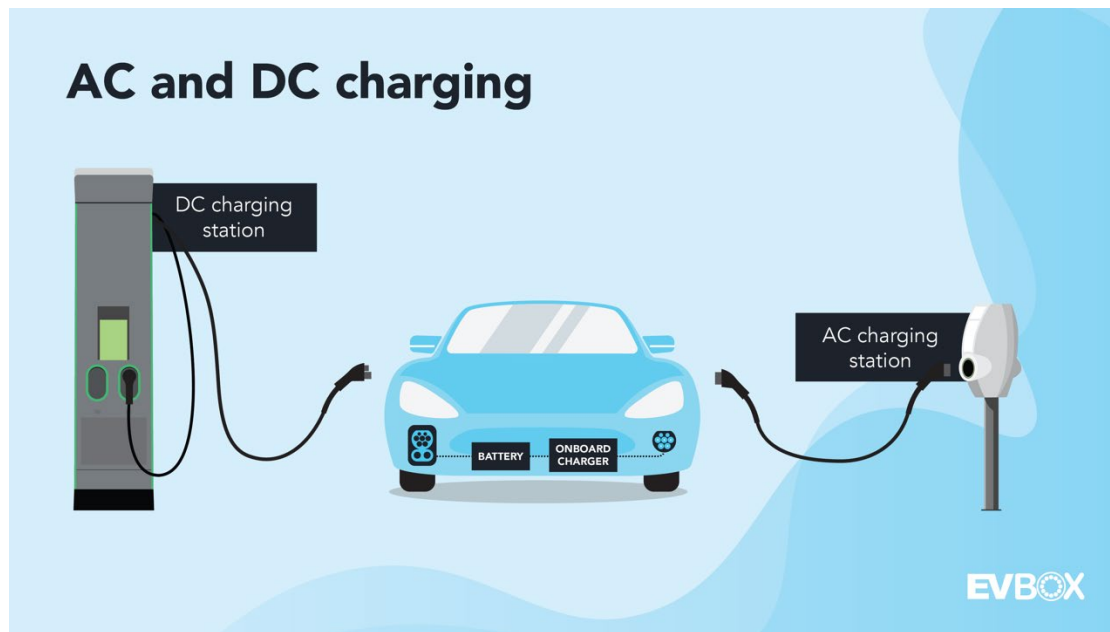
Idea 1 - Create an inventory of opportunities and measure progress

Table 2: Summary EV charging spaces available to multifamily properties by type²

Multifamily property type	Total units	Public EV charging on-site	% living units with EV charging on-site	Public EV charging ≤0.25 miles	% living units with public EV charging ≤0.25 miles
Total	5981	58	0.97%	147	2.46%
Owner-occupied condo	729	0	0.00%	18	2.47%
Non-owner occ condo	340	0	0.00%	12	3.53%
Duplex	364	0	0.00%	18	4.95%
Triplex	180	0	0.00%	12	6.67%
Fourplex	920	0	0.00%	12	1.30%
5-9 units	973	0	0.00%	12	1.23%
10-19 units	644	0	0.00%	12	1.86%
20-49 units	409	2	0.49%	39	9.54%
50+ units	1422	56	3.94%	12	0.84%

Recommendation 2

Focus on EV charging, not EV purchases



Idea 1 - Leverage partners to prompt EV purchases

Plenty of incentive and education programs for EV purchases already exist. Don't use time-constrained city resources to reinvent the wheel. Partner with existing orgs and add elements for MP residents



<https://www.acterra.org/goev>

Karl Knapp GoEV Program

- Education resources
- Webinars
- EV evangelists program
- Incentives clinics



BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

<https://www.baaqmd.gov/funding-and-incentives/residents/clean-cars-for-all/resources/other-clean-car-grants-and-rebates>

Clean Cars For All Program

- Hybrid Electric
- Plug-in Hybrid
- Battery Electric and Fuel Cell
- Mobility Options
- Optional Home Charger

The average Clean Cars for All vehicle costs \$28,000, and the average Clean Cars for All incentive is \$8,500.

Find new partnership opportunities, grants, and joint campaigns

Idea 2 - Focus on L1 & L2, not DC fast chargers (PCE discussion)

Using EVI Pro as a rough guidepost, to get to 100% EV fleet, Menlo Park will need:

~12,000 charging ports at existing multi-family properties, representing roughly 1/3 of the 35K vehicles that are located at multi-family properties. Assumes goal is 100% home charging access for all (and everyone in apartments has a place to park all their cars at their property, which may not be true). Shooting for 70% of this is generally OK as a target.

~1,200 public Level 2 charging ports

35 Level 3 fast chargers

OR, a combination of the following (which assumes that most multi-family residents won't have access to charging at their residence)

~1,000+ charging ports at multi-family properties

1,500+ Level 2 workplace charging ports

2,500 public Level 2 charging ports

~170 Level 3 fast chargers

PCE discussion - EV Ready

Phillip Kobernick
Senior Transportation Programs Manager
Peninsula Clean Energy

The EV Ready Program is a \$28 million electric vehicle charging infrastructure program seeking to install 3,500 charging ports in San Mateo County over 4 years.

The program offers:

- \$24 million in project [incentives](#)
- Free technical assistance to help design and guide project
- Access to negotiated EV charging station pricing
- A trained and responsive Trade Ally network of local contractors to install your charging ports

Some rough analysis

- There are ~32K vehicles right now in Menlo Park, ~4,000 are EVs
- Let's assume, by 2035, there are 35K total vehicles
- Menlo Park has about 13,000 [households](#), 2/3 of which are single-family homes. Suggest ignore for charging needs

Average out of pocket costs for L1/L2 outlets at MFH properties is about \$300 / outlet, after our incentives.

Several properties have done this at no cost if the projects are straight forward enough

Average out of pocket costs for Level 2 chargers generally is about \$3K - \$6K per charger, after our incentives. Including a range here as these projects have a much wider range in cost depending on project complexity (e.g. trenching) and how much the actual chargers cost. We also require a 25% match for L2 charging. No match needed for L1/L2 outlets

PCE discussion - Building Codes

Phillip Kobernick
Senior Transportation Programs Manager
Peninsula Clean Energy

Charging increases competitive positioning for apartment owners... but building code expansions could be useful

- State code (CALGreen) already calls for an existing building provision that states that 10% of added or altered parking spaces shall be EV Capable (conduit runs only, no place to plug in)
- PCE's model code changes this from EV Capable to EV charging installed. Cities that have adopted this provision include: Belmont, Colma, and East Palo Alto
- An additional existing building provision builds on this by also requiring all existing EV Capable spaces (that were previously installed because of prior CALGreen code requirements) need to be converted into a minimum of Level 1 outlets. Cities that did this are: Saratoga and Mountain View (in Santa Clara County)
- If there is an interest, existing building code expansions could be further explored. This could be various triggers that require the installation of outlets or chargers in specific applications
- PCE's current program states that we don't fund EV charging at market rate apartments that are code required, just voluntary measures that go above code. So, would need to strategize on an approach

Recommendation 3

Focus on informing stakeholders of incentives and benefits

Idea 1 - Create an outreach campaign to emphasize current incentives

1. Similar to the Earth Day Campaign targeting apartment owners and small business owners
2. Consider partnering with other cities and organizations
3. Consider partnering with local EV dealers that already have a PCE incentive relationship
4. Cross promote with other nonprofits: Acterra, Menlo Spark, PCE, etc.

Idea 2 - Find potential partners for L1 & L2 charging



U.S. Department of Transportation

<https://www.transportation.gov/rural/ev/toolkit/ev-partnership-opportunities/local-and-regional-partners>

Planning **and** infrastructure partners



<https://www.peninsulacleanenergy.com/ev-ready/>

EVReady Program



<https://gopowerev.com/>

Bridge the EV divide and bring equitable charging infrastructure to multi-family housing



<https://www.orangecharger.com/>

Solution that offers property owners an affordable charging platform generating a true return on investment



<https://evmatch.com/>

Working with multi-family properties in Santa Clara, LA, and San Diego counties to install affordable EV charging stations

Idea 3 - Utilize a wider variety of grants

Grants in three main areas: a) workforce, b) education, c) infrastructure development

Name	Scope	Website	Notes
National Electric Vehicle Infrastructure Formula Program	Federal	https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nevi_formula_program.cfm	Strategically deploy electric vehicle charging infrastructure
Congestion Mitigation and Air Quality Improvement (CMAQ) Program	Federal	https://www.fhwa.dot.gov/environment/air_quality/cmaq/	Fund transportation projects and programs to help meet the requirements of the Clean Air Act
The Charging and Fueling Infrastructure Discretionary Grant Program	Federal	https://www.fhwa.dot.gov/environment/cfi/	Strategically deploy publicly accessible electric vehicle charging and alternative fueling infrastructure in the places people live and work
Climate Pollution Reduction Grants Program: Implementation Grants (General Competition)	Federal	https://www.grants.gov/search-results-detail/350252	Implement GHG reduction programs, policies, projects, and measures

Resources

- Federal grants: www.grants.gov
- Dept of Transportation: <https://www.transportation.gov/rural/ev/toolkit/ev-infrastructure-funding-and-financing/federal-funding-programs>
- CA Climate Investments <https://ww2.arb.ca.gov/sites/default/files/movingca/alopportunities.html>
- Clean Vehicle Rebate Project: <https://cleanvehiclerebate.org/en/fleet/public-agencies>
- Clean Cars 4 All: <https://ww2.arb.ca.gov/sites/default/files/movingca/vehiclescrap.html>
- Clean Vehicle Assistance Program: <https://ww2.arb.ca.gov/sites/default/files/movingca/vehiclefinancing.html>
- Alternate Fuels Data Center: <https://afdc.energy.gov/laws/search#/>
- The Inflation Reduction Act: EV Provisions <https://www.atlasevhub.com/materials/the-inflation-reduction-act-ev-provisions/>

Thank You