

Environmental Quality Commission



REGULAR MEETING AGENDA

Date: 10/18/2023
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

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Regular Session

A. Call To Order

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

C. Public Comment

Under “Public Comment,” the public may address the Commission on any subject not listed on the agenda. Each speaker may address the Commission once under public comment for a limit of three minutes. You are not required to provide your name or City of residence, but it is helpful. The Commission cannot act on items not listed on the agenda and, therefore, the Commission cannot respond to non-agenda issues brought up under public comment other than to provide general information.

D. Regular Business

- D1. Approve the September 20, 2023 Environmental Quality Commission meeting minutes ([Attachment](#))
- D2. Review and discuss Climate Action Plan strategy goal No. 5 to eliminate fossil fuels from municipal operations ([Attachment](#))

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

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

E. Reports and Announcements

E1. Reports and announcements from staff and Commissioners

F. 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.

For appeal hearings, appellant and applicant shall each have 10 minutes for presentations.

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.

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REGULAR MEETING MINUTES – DRAFT

Date: 9/20/2023
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 6:01 p.m.

B. Roll Call

Present: Kissel, Hedley (Chair), Evans (remote – AB 2449 Just Cause), McKenna, Schmidt (Vice Chair)
Absent: Lin, Pelegri-Llopart
Staff: Sustainability Manager Rebecca Lucky, Management Analyst II Liz Tapia

C. Public Comment

None.

D. Regular Business

D1. Approve the August 16, 2023 Environmental Quality Commission meeting minutes (Attachment)

ACTION: Motion and second (Kissel/ Vice Chair Schmidt), to approve the August 16, 2023 Environmental Quality Commission meeting minutes, passed 5-0 (Lin and Pelegri-Llopart absent).

D2. Review and discuss 2025-2030 scope of work for Climate Action Plan strategy No. 1 to electrify 95% of existing buildings by 2030 (Presentation)

Chair Hedley introduced the item.

Sustainability Manager Lucky made the presentation (Attachment).

The Commission discussed possible scope of work items for Climate Action Plan strategy No. 1 to electrify 95% of existing buildings by 2030

The Commission took a recess at 8:02 p.m.

The Commission reconvened at 8:14 p.m.

The Commission provided feedback to staff and the Decarbonization Subcommittee and directed staff to return with an item that includes input from the absent commissioners (Attachment).

D3. Approve the Environmental Quality Commission work plan (Attachment)

Chair Hedley introduced the item.

ACTION: Motion and second (Kissel/ Evans) Approve the Environmental Quality Commission work plan, passed 5-0 (Lin and Pelegri-Llopart absent).

E. Reports and Announcements

E1. Reports and announcements from staff and Commissioners

Sustainability Manager Lucky reported the Environmental Quality Commission work plan is going to City Council for approval and provided updates on the Climate Action Plan Goal strategy No. 5 to replace City facility water heaters and solar purchase power agreement.

Management Analyst II Liz Tapia provided updates on work with Climate Action Plan strategy No .6 zero emission landscaping equipment and existing building electrification outreach.

Commissioner Kissel provided an update on upcoming electrified home tour on October 14.

Vice Chair Schmidt reported out on Urban Forest Master Plan and a Canopy progress, Climate Resilient Communities vulnerability assessment work in the Belle Haven community, and a youth engagement meeting with the Community Trust group.

Commissioner Evans reported out on Menlo Spark’s activities with homeowners in the Belle Haven neighborhood with interest in funding for home electrification and their work with a property management company related to electrifying a low-income senior building and other possible properties.

F. Adjournment

Chair Hedley adjourned the meeting at 8:49 p.m.

Liz Tapia, Management Analyst II



BRAINSTORM SESSION FOR 2025-2030 SCOPE OF WORK FOR CLIMATE ACTION PLAN STRATEGY NO.1

CONTENTS

- Meeting goals and timeline
- Overview of Climate Action Plan (CAP) strategy No.1
- Available data
- 2020 and 2021 scope of work and outcomes
- Building decarbonization ad hoc subcommittee discussions
- Discussion structure and ideas
- Even more data!

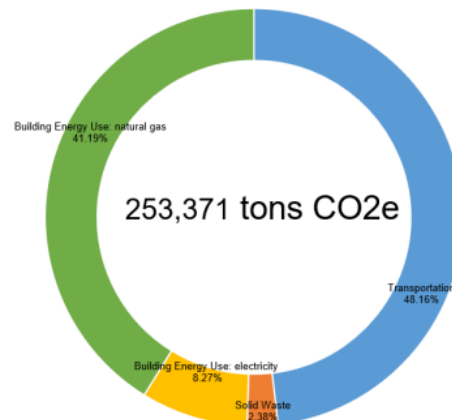
MEETING GOALS AND TIMELINES

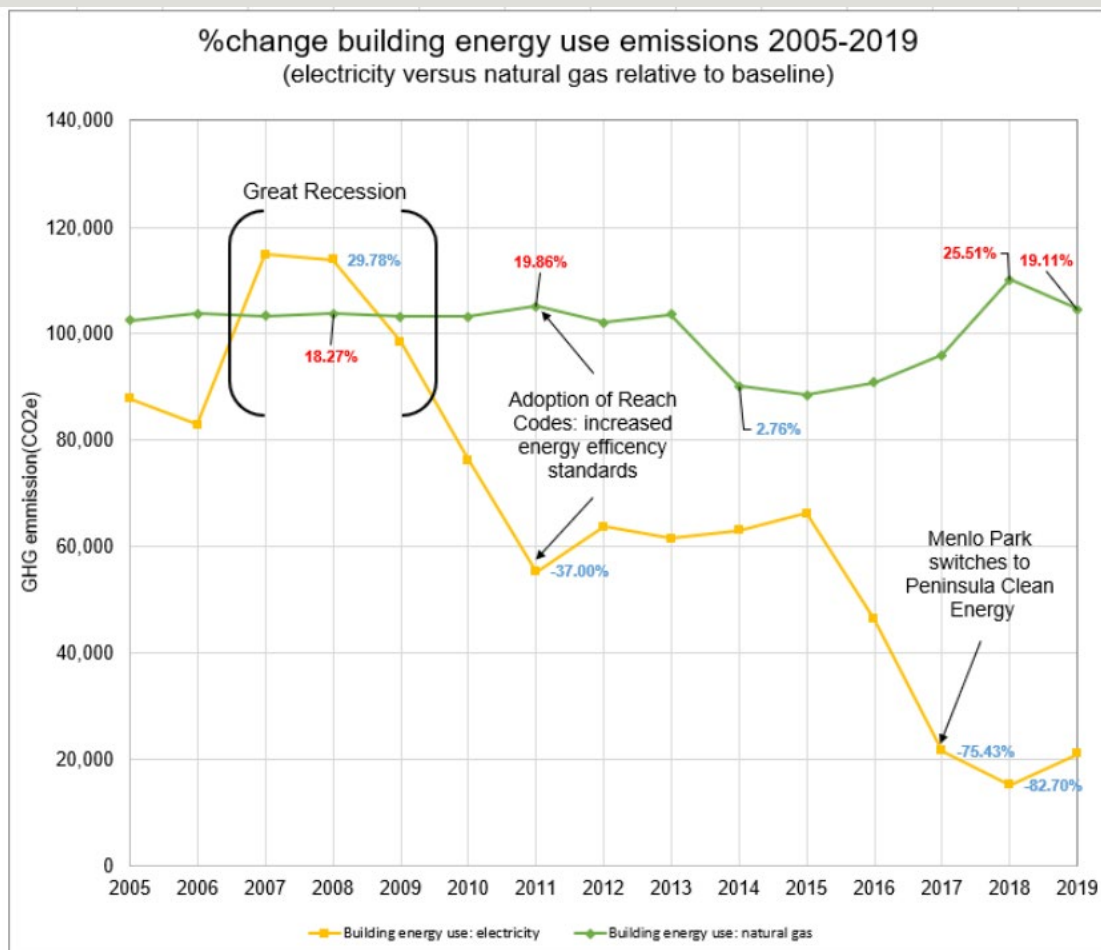
- Over the next several months the commission will be providing feedback to staff on possible ideas to explore for updating the 2025-2030 scope of work for each Climate Action Plan (CAP) strategy
 - City Council last approved a scope of work for each strategy in 2021, and remains part of the current 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

CAP STRATEGY NO.1

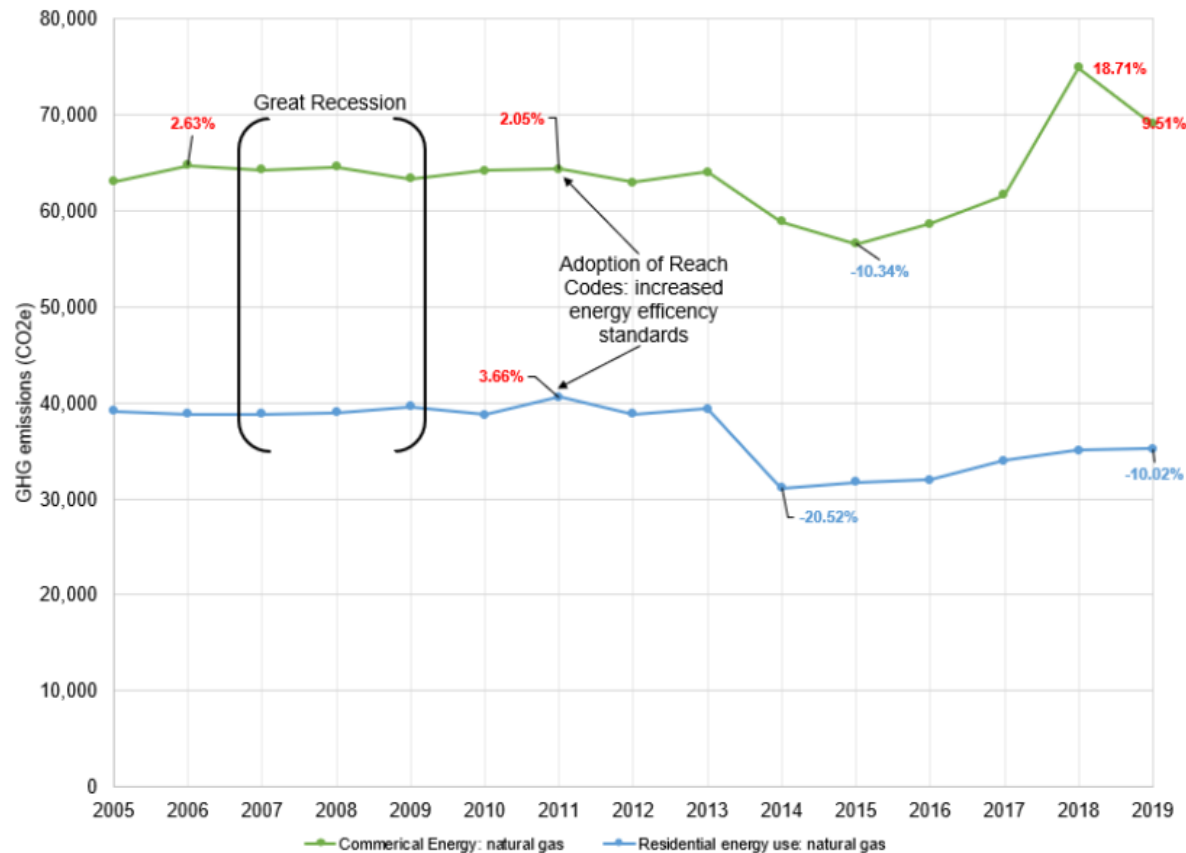
- Explore policy/program options to convert 95% of existing buildings to all-electric by 2030
- Why the goal was set
 - Natural gas usage in buildings makes up 41.2% of the community emissions
 - Peninsula Clean Energy (PCE) provides carbon-free electricity, which if paired with all-electric buildings would eliminate the emissions from building energy use
- How we are tracking it
 - Natural gas usage in buildings (primary)

City of Menlo Park communitywide greenhouse gas emissions 2019

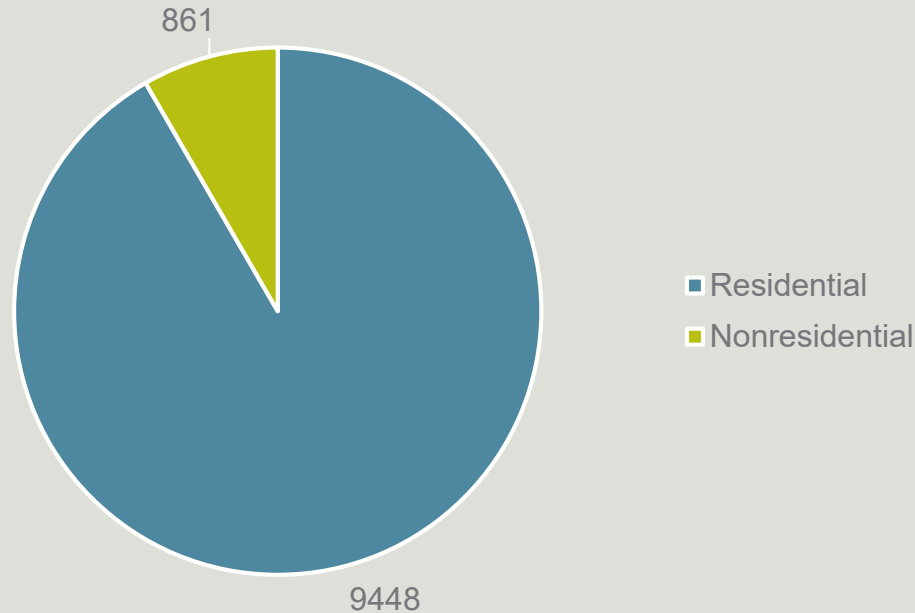




%change building energy use: natural gas emissions 2005-2019 (by account type, relative to baseline)



NUMBER OF RESIDENTIAL VS NONRESIDENTIAL PROPERTIES IN MENLO PARK



Note – some parcels in the El Camino Real/Downtown Specific Plan category included as nonresidential may have residential uses

CAP NO.1 2020 & 2021 SCOPE

- Two options were presented in the original CAP:
 - Enact an end of flow policy for natural gas usage in existing buildings by 2030. The City would explore how to work with PG&E to end the flow of natural gas to the community, which would require residents and businesses to actively plan on switching all gas equipment before the end of flow date; OR
 - Burn-out rule that would require replacement of gas-fired equipment with electric equipment when it reached the end of its life
- 2021 scope of work- City Council directed staff to prepare an analysis of program and policy options by August 2021
 - A report was completed and provided to the City Council
 - EQC provided final recommendations to the City Council



CITY COUNCIL DIRECTION AUGUST 2021



The City Council supported EQC recommendations No.1, 2, 3, 5 and No.6 for implementation:

1. Allow UUT to be collected at voter-approved levels (council action required) and establish a dedicated fund to support building decarbonization
2. Identify partners for funding and financing programs, including a specific low-income turnkey program
3. Develop program proposals to reduce "hassle factor" for building owners
- ~~4. Begin outlining ordinance to prohibit the installation of new gas appliances that require permits~~
5. Begin formal public engagement immediately
6. Develop long term plan/roadmap to meet CAP #1 goal



OUTCOMES OF AUGUST 2021 DIRECTION



- Identify building electrification partners for funding and financing programs, including a specific low-income turnkey program (2021-2024)
 - Spring 2022: Staff supported Menlo Spark in submitting an application for a \$1 million grant from ICLEI (Local Governments for Sustainability) to support existing building electrification for low to moderate income building owners. Ultimately, the grant was not awarded to the City nor Menlo Spark.
 - June 2022: City Council adopted a resolution of support to promote BlocPower services in the community.
 - 2022 & 2023: Menlo Spark worked on existing building electrification demonstration projects in the Belle Haven neighborhood and requested funding from Senator Josh Becker to support low income existing building electrification projects.
 - November 2022: The state granted the City of Menlo Park \$4.5 million to support community-wide building electrification projects
 - June 2023: EQC provided advice to City Council on program implementation of the \$4.5 million
 - Fall 2023: Study session with the City Council to determine how to implement the funds with a goal to begin implementation in early 2024



CITY COUNCIL DIRECTION AUGUST 2021



- Develop program proposals to reduce "hassle factor" for building owners
 - November 2021: a survey was sent to building professionals and general community members to determine barriers to electrification with a focus on how the permit process or incentives could help motivate permit applicants to electrify.
 - August 2022: City Council approved a permit fee waiver and credit program for existing building projects electrification projects.
 - February 2023: Presented rule changes to EQC that would allow electrification equipment to be located in garages and protective enclosures within required side and rear yard setbacks for existing single-family homes to help facilitate electrification and support permit streamlining. This will be considered by the Planning Commission tentatively in October 2023.
 - April 2023: Applied for the CalAPP grant and reserved \$40,000 in funding to implement online permit issuance of solar projects that may eventually help streamline building permit electrification.
 - Some improvements have been made to streamline the permitting process, and focus is underway to enhance the building electrification permit processing over the next several months.
 - New webpages were posted to identify permit submittal requirements more clearly to help streamline project review for some types of projects.



CITY COUNCIL DIRECTION

AUGUST 2021



- **Begin formal public engagement immediately**
 - In October and November 2021, informational virtual library events were held on the CAP and building electrification. Approximately 10-15 people attended and asked follow up questions after the events.
 - Regular City Council digest items included articles that supported information/resources around the electrification of existing buildings and the CAP progress report.
 - Summer 2022- present: The volunteer community collaboration sessions have been supporting outreach in the community, the City has been promoting the events in the community
 - May 2023: Presented public education and outreach ideas to the EQC, and received supportive feedback from the commission to implement.
 - Ongoing 2022 and 2023: Sustainability and Building Division staff worked on developing webpage materials to provide information about electrification incentives, rebates, and resources on how to electrify.
- **Work planned for the 2023:**
 - Continue to promote the volunteer-led community collaboration discussions and other relevant and credible sources of education and outreach resources
 - Launch public education and outreach activities for existing building electrification.
 - Efficiency can be gained by launching a public engagement strategy during first quarter of 2024 to leverage new incentives, tax credits, and direct install programs.



CITY COUNCIL DIRECTION AUGUST 2021



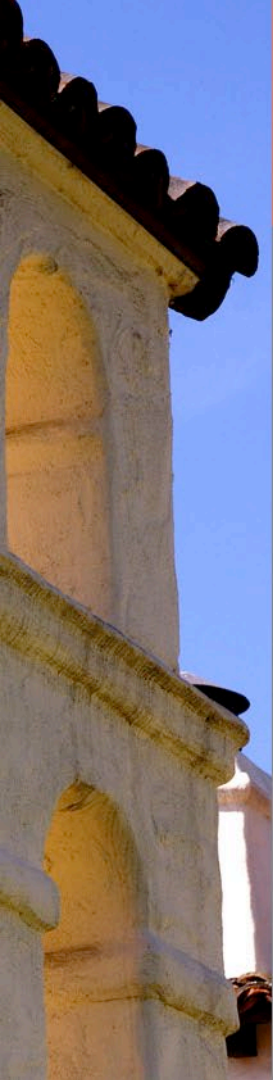
- Although direction was not supported by the City council to “Begin outlining ordinance to prohibit the installation of new gas appliances that require permits,” staff and the commission worked on other possible pathways that were being explored by other cities.
 - March 2022: EQC supported staff recommendations for existing building reach codes and added additional measures to consider.
 - Summer 2022: Met with City Council CAP subcommittee to discuss options for existing building and new building reach codes
 - Recommendation was to renew new building reach codes and enhance electric vehicle charging requirements for new residential development.
 - Existing buildings would be revisited after January 1, 2023.
 - November 2022: City Council readopted the City’s previous electrification requirements for new buildings as part of the new building code cycle that started Jan. 1.
 - February 2023: Staff met with the City Council CAP subcommittee three times in February to discuss potential electrification requirements for existing buildings for an upcoming City Council study session.
 - Ongoing: Will be partner with PCE, regional, and state agencies to determine best pathway for reach codes as part of the next statewide building code cycle update

BEYOND MENLO PARK

- Bay Area Air Quality Management District adopted rules this year that would:
 - Prohibit the manufacture and installation of gas-fired water heaters in communities within the air district's jurisdiction starting in 2027
 - Prohibit the manufacture and installation of gas fired furnaces starting January 1, 2029
 - Two years prior to effective date (2025 and 2027 respectively), the Board of Directors will evaluate the feasibility of the above phase out dates.
- Reach Codes
 - Peninsula Clean Energy, CALGreen, and the California Energy Commission are reviewing possible pathways to require electrification in both new and existing buildings

INCENTIVES

- Incentive landscape is changing and will continue to change rapidly
- Federal, state, regional and energy provider incentives available
- Likely to continue in order to advance the transition to electric equipment



MULTIFAMILY PROPERTIES, RENTERS, AND EQUITY

- ~40% of the Menlo Park population resides in multifamily properties (e.g. apartment/condominiums, townhome, duplex, triplex, etc.)



BUILDING DECARBIZATION AD HOC SUBCOMMITTEE



- Staff and Building Decarbonization ad hoc subcommittee met in August 2023
- Exploring the following ideas for scope of work 2025-2030
 - Instant permit process that would involve mailing pre-approved permits to building owners in Menlo Park
 - 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
 - Exploring rental protection policies to ensure that equipment upgrades keep rental rates affordable and do not displace residents
- Will be meeting in October 2023 to further discuss ideas for 2025-2030 scope of work based on feedback from this meeting

DISCUSSION STRUCTURE FOR CAP NO.1 2025-2030



GETTING THE MOST WITH CURRENT RESOURCES AND BUDGET



- Focus on addressing barriers to existing building electrification between 2025 and 2030
- Determine where the City has influence, tools, or ability/authority to remove barriers
- Aim for highest value of staff resources and city budget that would result in greater GHG reductions
 - Try to address the most significant barrier or opportunity to prioritize actions
 - Discuss hard-to-address equity concerns



POSSIBLE IDEAS FOR EQC DISCUSSION



- Discuss Commission ideas and begin to prioritize them at this meeting
- Staff and building decarbonization ad hoc subcommittee will return back to the Commission



THANK YOU

ADDITIONAL DATA

COSTS TO ELECTRIFY STARTING 2024

- \$30,000 for whole home electrification
 - \$16,750 for high income earners with rebates and tax credits
 - \$7,910 for middle to low income earners with rebates and tax credits
- \$6,200 for heat pump water heater conversion
 - \$0 with rebates and tax credits for all income levels (\$5,750-\$6,200 in rebates and \$2,000 tax credit)
- \$19,000 for heat pump space heating
 - \$12,500 with rebates (\$4,500) and tax credits (\$2,000)
 - \$4,500 for middle income and low income with incentives (\$12,500 rebates and \$2,000 tax credit)

Information provided by PCE and are all-in costs (not incremental) for single-family home

COSTS TO ELECTRIFY STARTING 2024

- \$2,500 for induction cooktop
 - \$1,660 for middle and low income (\$840 rebates)
- \$1,750 for electric dryer- no rebates available
- \$4,150 for panel and electrical service upgrade for median home
 - \$2,650 for all income levels (\$1,500 from PCE)
- \$8,000 for pool heating
 - No incentives for single family
 - BayREN offers \$1,500 per pool for multifamily

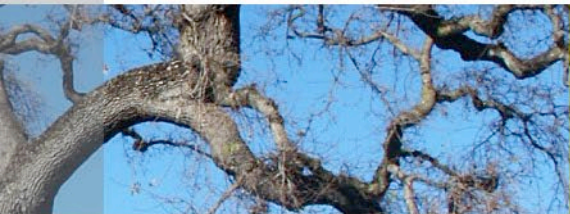
Information provided by PCE and are all-in costs (not incremental) for single- family home

COSTS TO ELECTRIFY STARTING 2024

- \$12,000 for battery storage for median home
 - \$9,000 for all income levels (\$3,000 rebate SGIP)
 - \$1,800 for SASH participants or homes with resale restrictions (\$10,200 incentive)
 - \$0 for areas with two or more power outage events, resale restrictions, or enrolled in Medical Baseline Program (\$12,000 incentive)

- \$20,000 for solar installation for median home
 - \$14,000 for all income levels (\$6,000 federal tax credit)
 - Important to note that solar is a motivating factor to electrify homes

Information provided by PCE and are all-in costs (not incremental) for single- family home



PCE BUILDING ELECTRIFICATION INCENTIVES



- \$3,000 for heat pump water heater
- \$3,500 for heat pump space heating
- \$1,500 for panel upgrade
- On-bill zero interest loan up to \$10,000
- Whole home electrification costs between \$30,000 and \$40,000- depends on conditions in the home
- Other incentives can be stacked, such as TECH and federal tax credits and rebates



Heat pump condenser evaporator unit



Installed heat pump water heater

NONRESIDENTIAL VS RESIDENTIAL PARCELS



Use	Number of parcels
Commercial business park	3
Commercial offices	49
Commercial retail	43
ECR/DT SP	452
LS	64
Limited Industry	19
MU Residential	30
Office	69
Public Facilities	26
Residential High Density	177
Residential Low Density	6.3k
Residential Medium Density	2.7k
Residential Very Low Density	341
Unclassified	27

MENLO PARK MULTIFAMILY BREAKDOWN



MUD type with 4 units or more	no. sites	living units	% total housing units in Menlo Park 13,085	% of MUD
owner-occupied condo	55	734	5.61%	13.50%
non-owner occ condo		340	2.60%	6.25%
4-9 units	380	1888	14.43%	34.73%
10-19 units	49	644	4.92%	11.84%
20-49 units	13	409	3.13%	7.52%
50+ units	9	1422	10.87%	26.15%
		5,437	41.55%	100.00%
condos include townhomes that may have garages and don't have shared parking				

September 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. Two commissioners were absent and additional feedback will be received at the October meeting.

1. **Reconsider the burn-out regulation for adoption that meet legal constraints, feasibility and equity concerns for all building types (7)**
2. **Explore electrifying commercial buildings (4)**
 - 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. 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
6. 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)
7. 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)
8. 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)
9. Exploring rental protection policies to ensure that equipment upgrades keep rental rates affordable and do not displace residents (1)
10. Pilot a block by block electrification project (1)

Not voted on

11. 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

12. Bulk buy electrification equipment to reduce costs
13. Use the permitting counter as an education hub
14. Electrify community hubs where the public gathers (e.g. schools, retirement facilities, key grocery stores)

The background image shows a scenic view of a grassy hill. In the foreground, a rustic wooden fence runs across the frame. In the middle ground, two people are standing on the grass, looking towards the horizon. The sky is overcast with grey clouds. The overall tone is natural and serene.

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

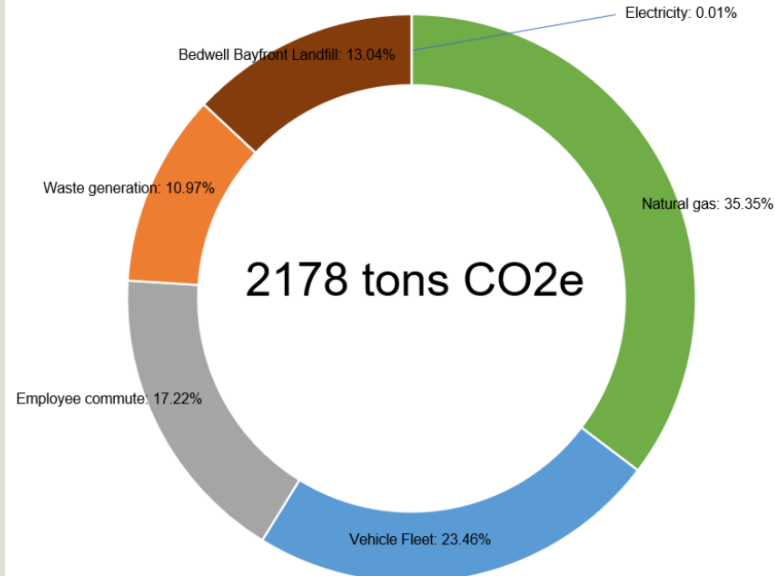
- Over the next several months the commission will be providing feedback to staff on possible ideas to explore for updating the 2025-2030 scope of work for each Climate Action Plan (CAP) strategy
 - City Council last approved a scope of work for each strategy in 2021, and remains part of the current 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

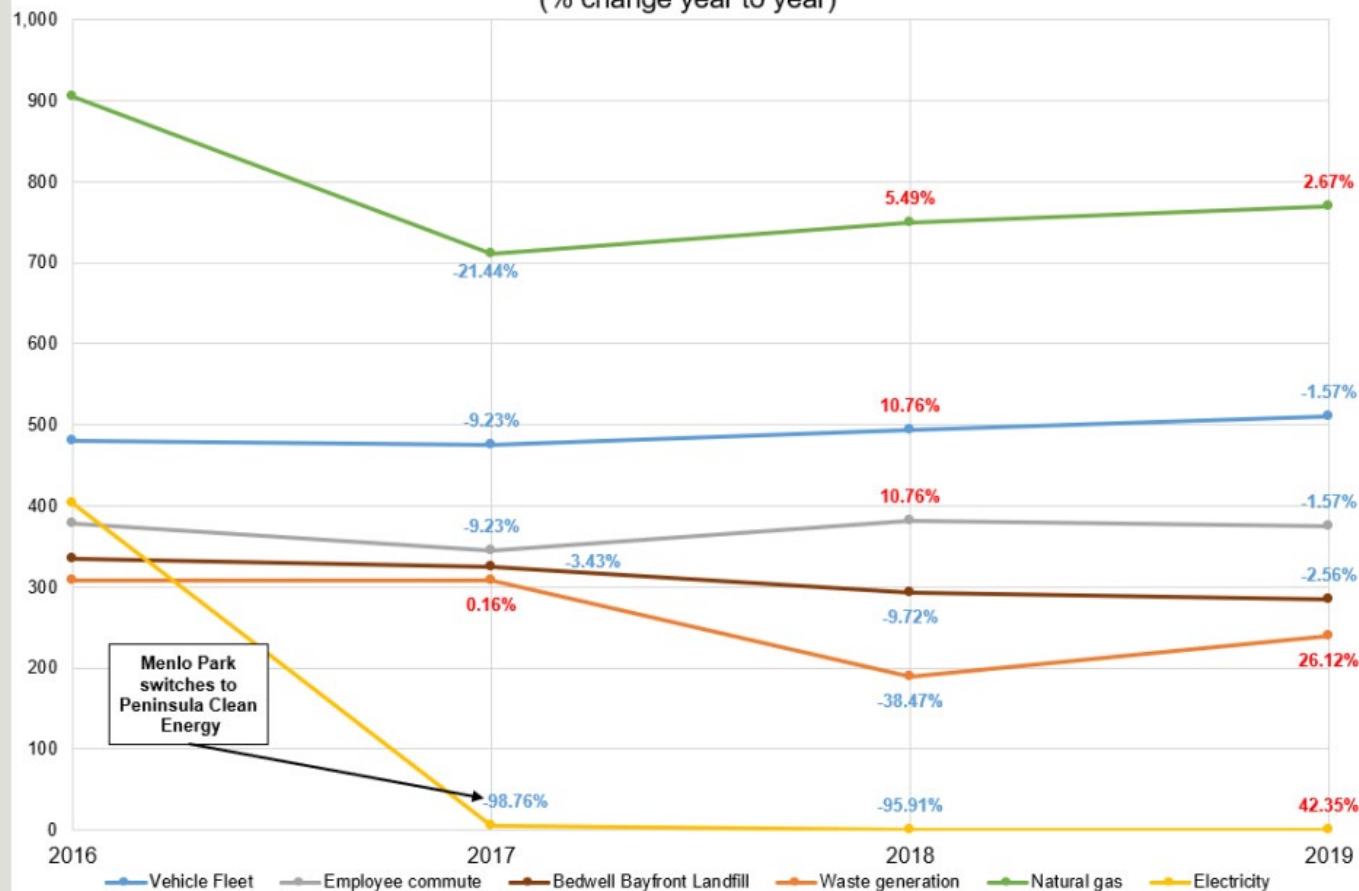


- Eliminate the use of fossil fuels from municipal operations
- Why the goal was set
 - Opportunity to show leadership in decarbonization
 - Test equipment and practices to understand impacts
- How we are tracking it
 - Facilities emissions reductions (natural gas usage in buildings)
 - Fleet electrification (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
- The remaining 10 percent



THANK YOU



PENINSULA CLEAN ENERGY SOLAR FOR PUBLIC FACILITIES OVERVIEW

October 18, 2023 Environmental Quality Commission Meeting

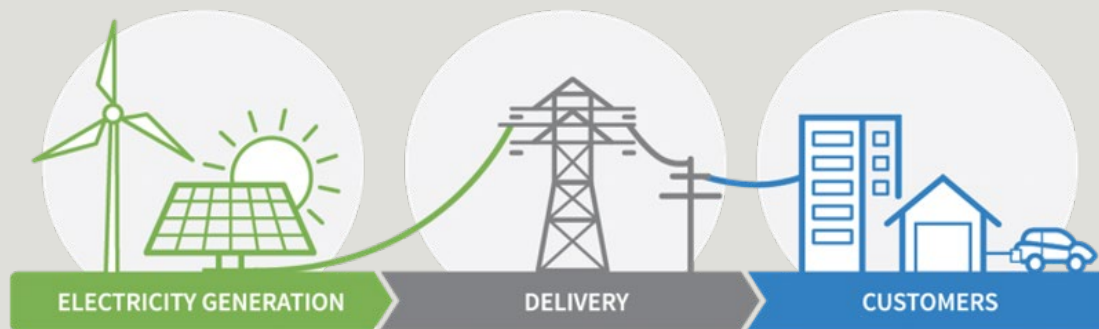
AGENDA

- 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

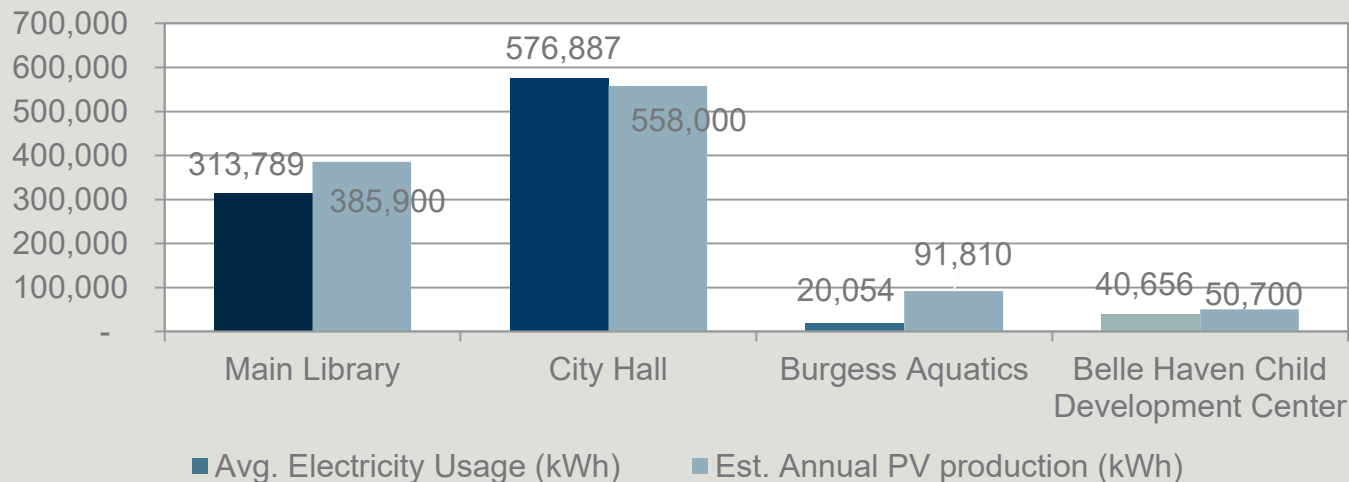
Source: Peninsula Clean Energy

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

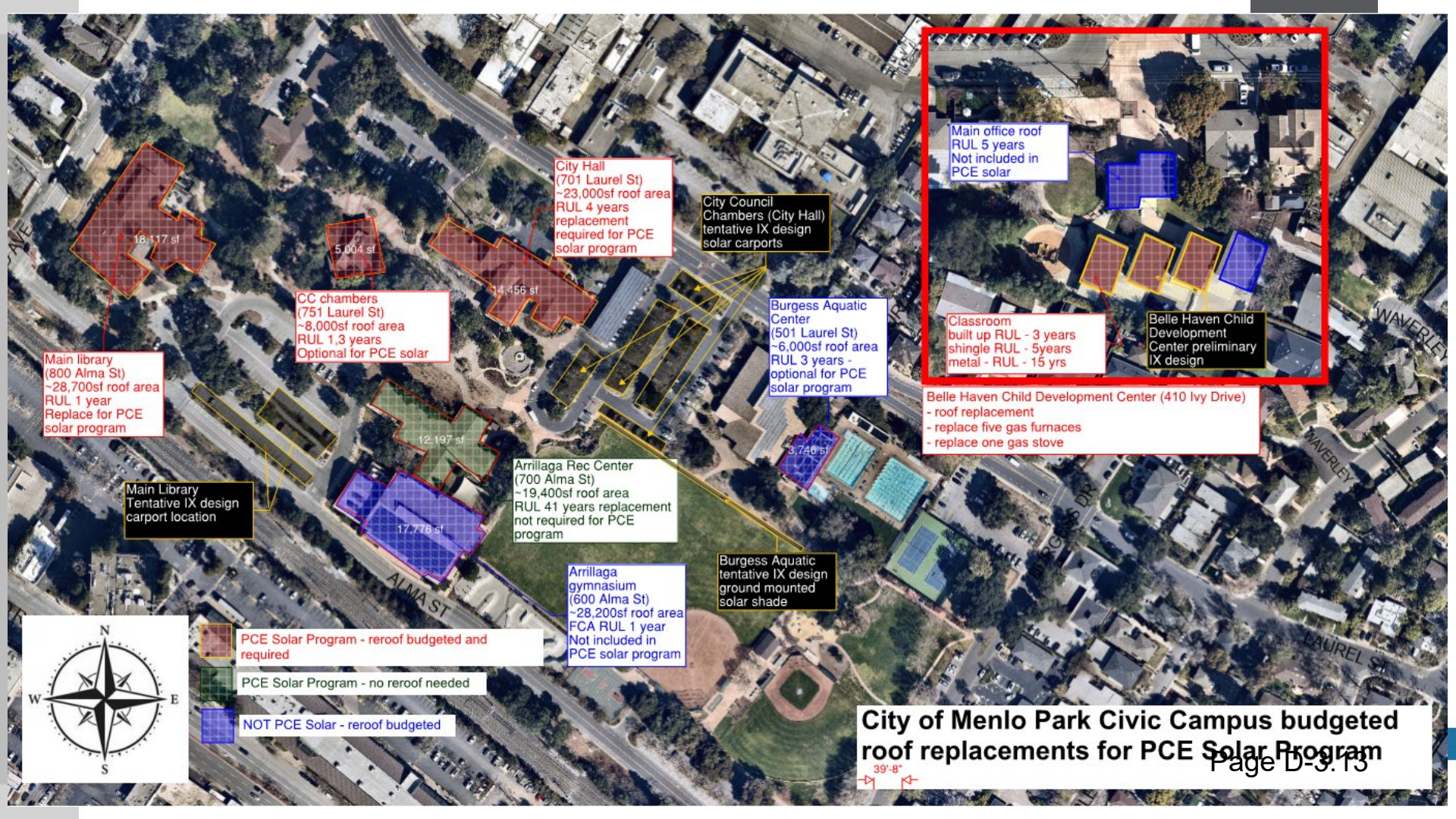
- ~~City submitted application (Jan 2023)~~
- ~~PCE consultant came for 16 site assessments (Feb 2023)~~
- ~~PCE submitted 4 preliminary interconnection applications ahead of the NEM 3.0 start date (April 2023)~~
 - ~~Three years to complete the projects to stay under NEM 2.0 (April 2026)~~
- ~~City 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

Main Library
Tentative IX design
carport location

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

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

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

Burgess Aquatic
tentative IX design
ground mounted
solar shade



-  PCE Solar Program - reroof budgeted and required
-  PCE Solar Program - no reroof needed
-  NOT PCE Solar - reroof budgeted

The background image shows a lush green grassy hill under a cloudy sky. A wooden post-and-rail fence runs across the middle ground. In the distance, two people are standing on the hill. The scene is captured in a wide-angle shot, emphasizing the natural setting.

BRAINSTORM SESSION FOR 2025-2030 SCOPE OF WORK FOR CLIMATE ACTION PLAN STRATEGY NO.1

CONTENTS

- Meeting goals and timeline
- Overview of Climate Action Plan (CAP) strategy No.1
- Available data
- 2020 and 2021 scope of work and outcomes
- Building decarbonization ad hoc subcommittee discussions
- Discussion structure and ideas
- Even more data!

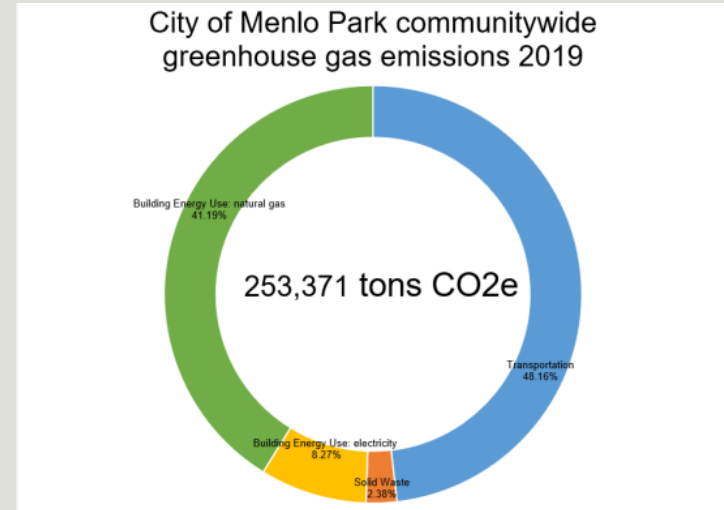
MEETING GOALS AND TIMELINES

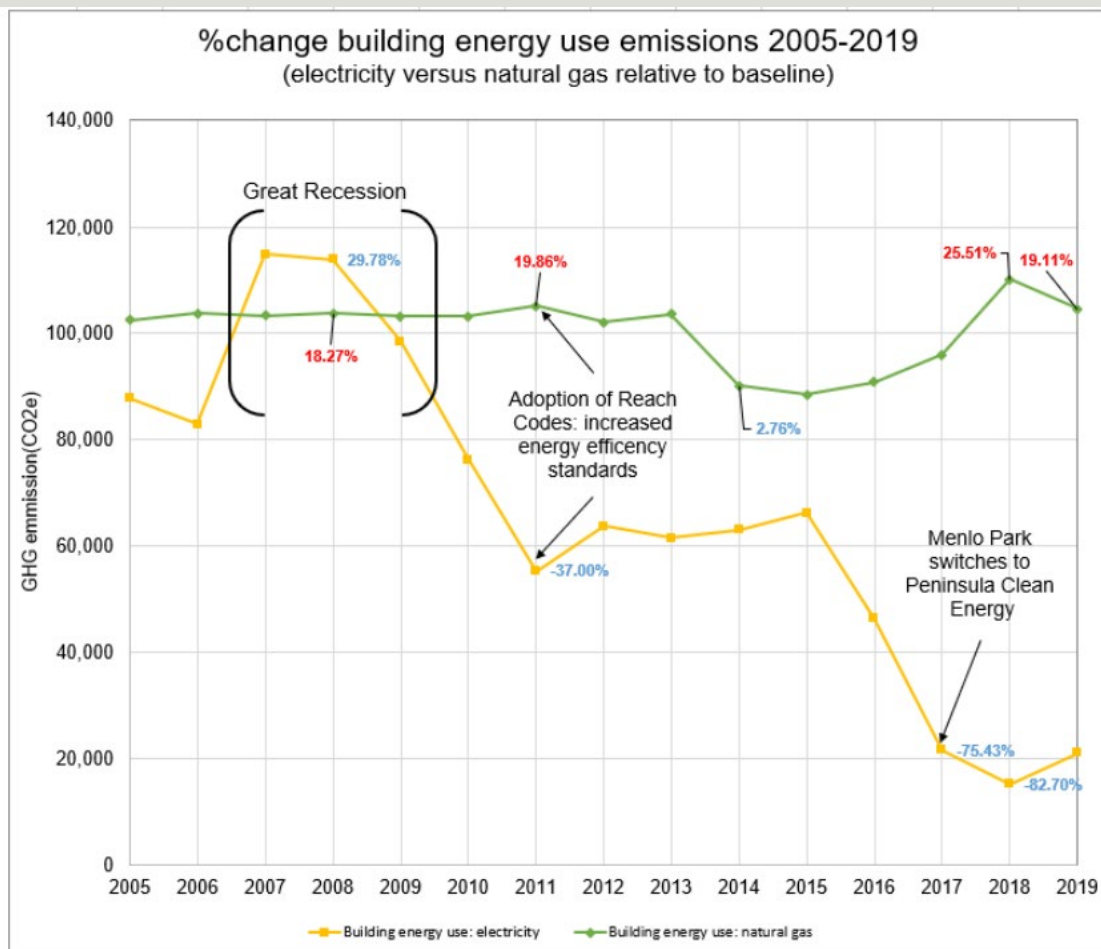
- Over the next several months the commission will be providing feedback to staff on possible ideas to explore for updating the 2025-2030 scope of work for each Climate Action Plan (CAP) strategy
 - City Council last approved a scope of work for each strategy in 2021, and remains part of the current 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

CAP STRATEGY NO.1

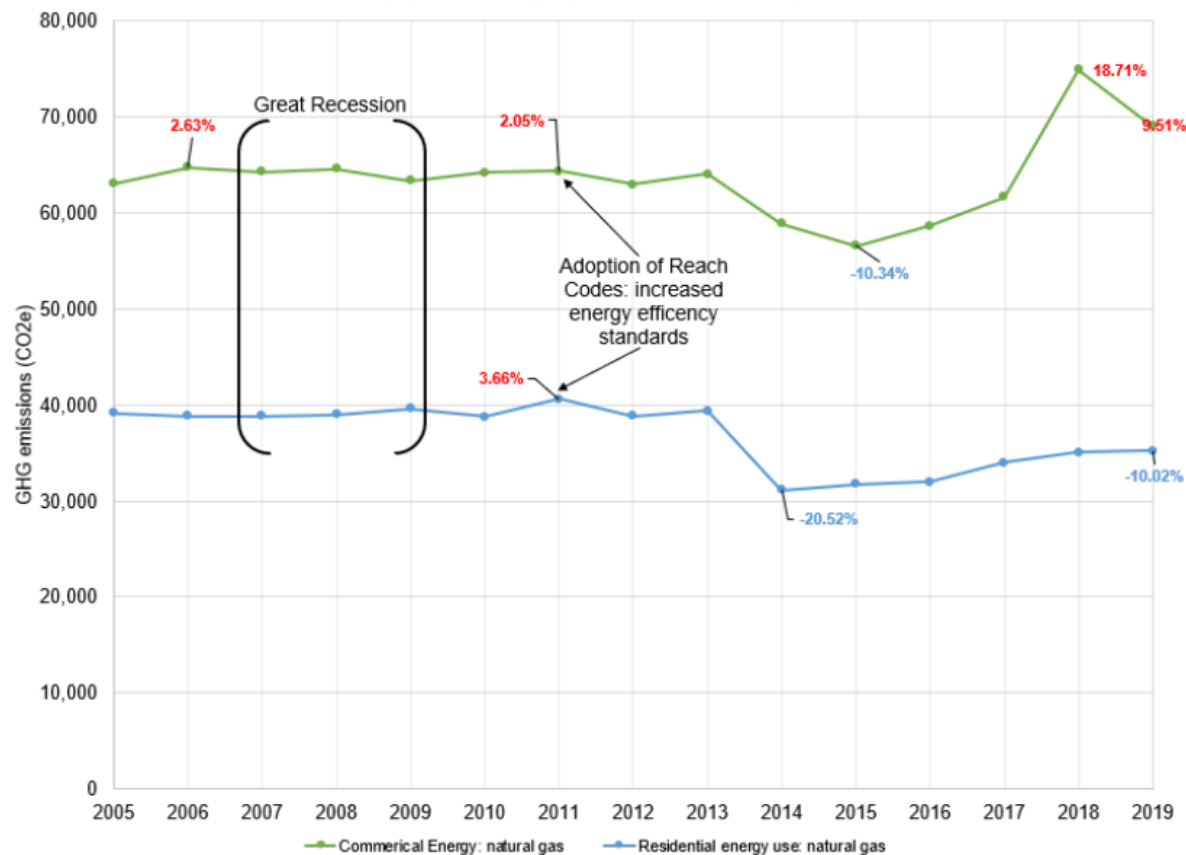


- Explore policy/program options to convert 95% of existing buildings to all-electric by 2030
- Why the goal was set
 - Natural gas usage in buildings makes up 41.2% of the community emissions
 - Peninsula Clean Energy (PCE) provides carbon-free electricity, which if paired with all-electric buildings would eliminate the emissions from building energy use
- How we are tracking it
 - Natural gas usage in buildings (primary)

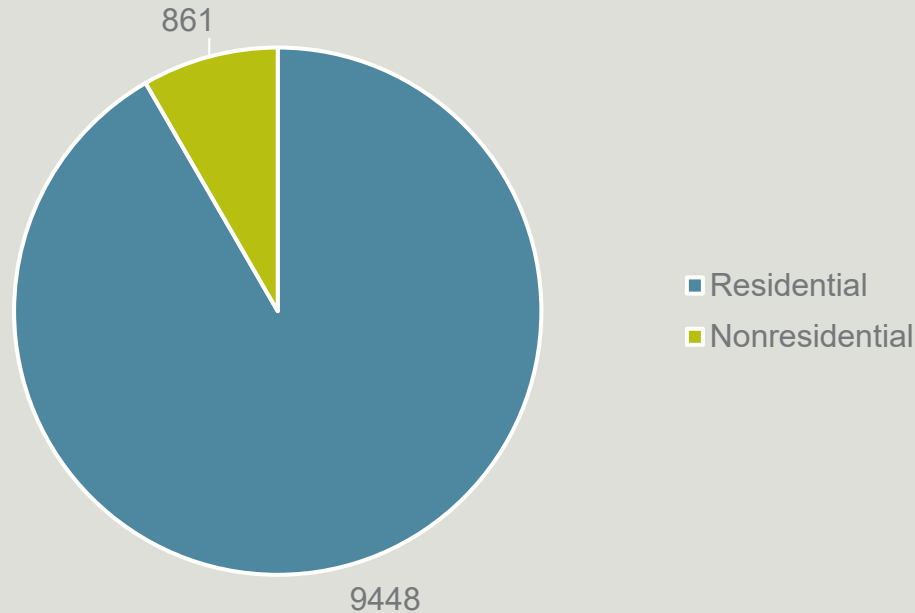




%change building energy use: natural gas emissions 2005-2019
(by account type, relative to baseline)



NUMBER OF RESIDENTIAL VS NONRESIDENTIAL PROPERTIES IN MENLO PARK



Note – some parcels in the El Camino Real/Downtown Specific Plan category included as nonresidential may have residential uses

CAP NO.1 2020 & 2021 SCOPE

- Two options were presented in the original CAP:
 - Enact an end of flow policy for natural gas usage in existing buildings by 2030. The City would explore how to work with PG&E to end the flow of natural gas to the community, which would require residents and businesses to actively plan on switching all gas equipment before the end of flow date; OR
 - Burn-out rule that would require replacement of gas-fired equipment with electric equipment when it reached the end of its life
- 2021 scope of work- City Council directed staff to prepare an analysis of program and policy options by August 2021
 - A report was completed and provided to the City Council
 - EQC provided final recommendations to the City Council



CITY COUNCIL DIRECTION AUGUST 2021



The City Council supported EQC recommendations No.1, 2, 3, 5 and No.6 for implementation:

1. Allow UUT to be collected at voter-approved levels (council action required) and establish a dedicated fund to support building decarbonization
2. Identify partners for funding and financing programs, including a specific low-income turnkey program
3. Develop program proposals to reduce "hassle factor" for building owners
- ~~4. Begin outlining ordinance to prohibit the installation of new gas appliances that require permits~~
5. Begin formal public engagement immediately
6. Develop long term plan/roadmap to meet CAP #1 goal



OUTCOMES OF AUGUST 2021 DIRECTION



- Identify building electrification partners for funding and financing programs, including a specific low-income turnkey program (2021-2024)
 - Spring 2022: Staff supported Menlo Spark in submitting an application for a \$1 million grant from ICLEI (Local Governments for Sustainability) to support existing building electrification for low to moderate income building owners. Ultimately, the grant was not awarded to the City nor Menlo Spark.
 - June 2022: City Council adopted a resolution of support to promote BlocPower services in the community.
 - 2022 & 2023: Menlo Spark worked on existing building electrification demonstration projects in the Belle Haven neighborhood and requested funding from Senator Josh Becker to support low income existing building electrification projects.
 - November 2022: The state granted the City of Menlo Park \$4.5 million to support community-wide building electrification projects
 - June 2023: EQC provided advice to City Council on program implementation of the \$4.5 million
 - Fall 2023: Study session with the City Council to determine how to implement the funds with a goal to begin implementation in early 2024



CITY COUNCIL DIRECTION AUGUST 2021



- Develop program proposals to reduce "hassle factor" for building owners
 - November 2021: a survey was sent to building professionals and general community members to determine barriers to electrification with a focus on how the permit process or incentives could help motivate permit applicants to electrify.
 - August 2022: City Council approved a permit fee waiver and credit program for existing building projects electrification projects.
 - February 2023: Presented rule changes to EQC that would allow electrification equipment to be located in garages and protective enclosures within required side and rear yard setbacks for existing single-family homes to help facilitate electrification and support permit streamlining. This will be considered by the Planning Commission tentatively in October 2023.
 - April 2023: Applied for the CalAPP grant and reserved \$40,000 in funding to implement online permit issuance of solar projects that may eventually help streamline building permit electrification.
 - Some improvements have been made to streamline the permitting process, and focus is underway to enhance the building electrification permit processing over the next several months.
 - New webpages were posted to identify permit submittal requirements more clearly to help streamline project review for some types of projects.



CITY COUNCIL DIRECTION AUGUST 2021



- **Begin formal public engagement immediately**
 - In October and November 2021, informational virtual library events were held on the CAP and building electrification. Approximately 10-15 people attended and asked follow up questions after the events.
 - Regular City Council digest items included articles that supported information/resources around the electrification of existing buildings and the CAP progress report.
 - Summer 2022- present: The volunteer community collaboration sessions have been supporting outreach in the community, the City has been promoting the events in the community
 - May 2023: Presented public education and outreach ideas to the EQC, and received supportive feedback from the commission to implement.
 - Ongoing 2022 and 2023: Sustainability and Building Division staff worked on developing webpage materials to provide information about electrification incentives, rebates, and resources on how to electrify.
- **Work planned for the 2023:**
 - Continue to promote the volunteer-led community collaboration discussions and other relevant and credible sources of education and outreach resources
 - Launch public education and outreach activities for existing building electrification.
 - Efficiency can be gained by launching a public engagement strategy during first quarter of 2024 to leverage new incentives, tax credits, and direct install programs.



CITY COUNCIL DIRECTION AUGUST 2021



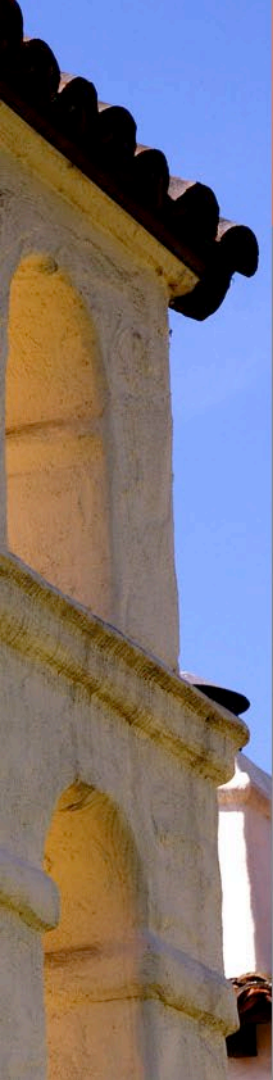
- Although direction was not supported by the City council to “Begin outlining ordinance to prohibit the installation of new gas appliances that require permits,” staff and the commission worked on other possible pathways that were being explored by other cities.
 - March 2022: EQC supported staff recommendations for existing building reach codes and added additional measures to consider.
 - Summer 2022: Met with City Council CAP subcommittee to discuss options for existing building and new building reach codes
 - Recommendation was to renew new building reach codes and enhance electric vehicle charging requirements for new residential development.
 - Existing buildings would be revisited after January 1, 2023.
 - November 2022: City Council readopted the City’s previous electrification requirements for new buildings as part of the new building code cycle that started Jan. 1.
 - February 2023: Staff met with the City Council CAP subcommittee three times in February to discuss potential electrification requirements for existing buildings for an upcoming City Council study session.
 - Ongoing: Will be partner with PCE, regional, and state agencies to determine best pathway for reach codes as part of the next statewide building code cycle update

BEYOND MENLO PARK

- Bay Area Air Quality Management District adopted rules this year that would:
 - Prohibit the manufacture and installation of gas-fired water heaters in communities within the air district's jurisdiction starting in 2027
 - Prohibit the manufacture and installation of gas fired furnaces starting January 1, 2029
 - Two years prior to effective date (2025 and 2027 respectively), the Board of Directors will evaluate the feasibility of the above phase out dates.
- Reach Codes
 - Peninsula Clean Energy, CALGreen, and the California Energy Commission are reviewing possible pathways to require electrification in both new and existing buildings

INCENTIVES

- Incentive landscape is changing and will continue to change rapidly
- Federal, state, regional and energy provider incentives available
- Likely to continue in order to advance the transition to electric equipment



MULTIFAMILY PROPERTIES, RENTERS, AND EQUITY

- ~40% of the Menlo Park population resides in multifamily properties (e.g. apartment/condominiums, townhome, duplex, triplex, etc.)



BUILDING DECARBIZATION AD HOC SUBCOMMITTEE



- Staff and Building Decarbonization ad hoc subcommittee met in August 2023
- Exploring the following ideas for scope of work 2025-2030
 - Instant permit process that would involve mailing pre-approved permits to building owners in Menlo Park
 - 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
 - Exploring rental protection policies to ensure that equipment upgrades keep rental rates affordable and do not displace residents
- Will be meeting in October 2023 to further discuss ideas for 2025-2030 scope of work based on feedback from this meeting

DISCUSSION STRUCTURE FOR CAP NO.1 2025-2030



GETTING THE MOST WITH CURRENT RESOURCES AND BUDGET



- Focus on addressing barriers to existing building electrification between 2025 and 2030
- Determine where the City has influence, tools, or ability/authority to remove barriers
- Aim for highest value of staff resources and city budget that would result in greater GHG reductions
 - Try to address the most significant barrier or opportunity to prioritize actions
 - Discuss hard-to-address equity concerns



POSSIBLE IDEAS FOR EQC DISCUSSION



- Discuss Commission ideas and begin to prioritize them at this meeting
- Staff and building decarbonization ad hoc subcommittee will return back to the Commission



THANK YOU

ADDITIONAL DATA

COSTS TO ELECTRIFY STARTING 2024

- \$30,000 for whole home electrification
 - \$16,750 for high income earners with rebates and tax credits
 - \$7,910 for middle to low income earners with rebates and tax credits
- \$6,200 for heat pump water heater conversion
 - \$0 with rebates and tax credits for all income levels (\$5,750-\$6,200 in rebates and \$2,000 tax credit)
- \$19,000 for heat pump space heating
 - \$12,500 with rebates (\$4,500) and tax credits (\$2,000)
 - \$4,500 for middle income and low income with incentives (\$12,500 rebates and \$2,000 tax credit)

Information provided by PCE and are all-in costs (not incremental) for single-family home

COSTS TO ELECTRIFY STARTING 2024

- \$2,500 for induction cooktop
 - \$1,660 for middle and low income (\$840 rebates)
- \$1,750 for electric dryer- no rebates available
- \$4,150 for panel and electrical service upgrade for median home
 - \$2,650 for all income levels (\$1,500 from PCE)
- \$8,000 for pool heating
 - No incentives for single family
 - BayREN offers \$1,500 per pool for multifamily

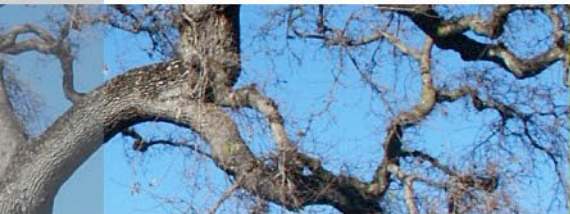
Information provided by PCE and are all-in costs (not incremental) for single- family home

COSTS TO ELECTRIFY STARTING 2024

- \$12,000 for battery storage for median home
 - \$9,000 for all income levels (\$3,000 rebate SGIP)
 - \$1,800 for SASH participants or homes with resale restrictions (\$10,200 incentive)
 - \$0 for areas with two or more power outage events, resale restrictions, or enrolled in Medical Baseline Program (\$12,000 incentive)

- \$20,000 for solar installation for median home
 - \$14,000 for all income levels (\$6,000 federal tax credit)
 - Important to note that solar is a motivating factor to electrify homes

Information provided by PCE and are all-in costs (not incremental) for single- family home



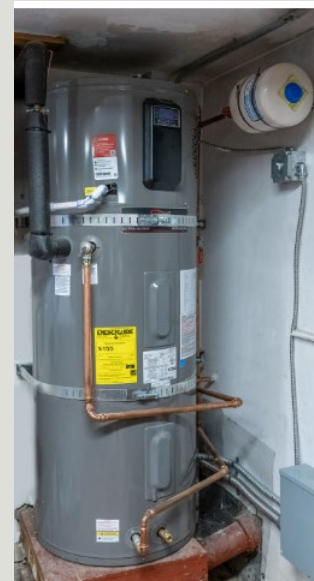
PCE BUILDING ELECTRIFICATION INCENTIVES



- \$3,000 for heat pump water heater
- \$3,500 for heat pump space heating
- \$1,500 for panel upgrade
- On-bill zero interest loan up to \$10,000
- Whole home electrification costs between \$30,000 and \$40,000- depends on conditions in the home
- Other incentives can be stacked, such as TECH and federal tax credits and rebates



Heat pump condenser evaporator unit



Installed heat pump water heater

NONRESIDENTIAL VS RESIDENTIAL PARCELS



Use	Number of parcels
Commercial business park	3
Commercial offices	49
Commercial retail	43
ECR/DT SP	452
LS	64
Limited Industry	19
MU Residential	30
Office	69
Public Facilities	26
Residential High Density	177
Residential Low Density	6.3k
Residential Medium Density	2.7k
Residential Very Low Density	341
Unclassified	27

MENLO PARK MULTIFAMILY BREAKDOWN



MUD type with 4 units or more	no. sites	living units	% total housing units in Menlo Park 13,085	% of MUD
owner-occupied condo	55	734	5.61%	13.50%
non-owner occ condo		340	2.60%	6.25%
4-9 units	380	1888	14.43%	34.73%
10-19 units	49	644	4.92%	11.84%
20-49 units	13	409	3.13%	7.52%
50+ units	9	1422	10.87%	26.15%
		5,437	41.55%	100.00%
condos include townhomes that may have garages and don't have shared parking				

September 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. Two commissioners were absent and additional feedback will be received at the October meeting.

1. **Reconsider the burn-out regulation for adoption that meet legal constraints, feasibility and equity concerns for all building types (7)**
2. **Explore electrifying commercial buildings (4)**
 - 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. 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
6. 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)
7. 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)
8. 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)
9. Exploring rental protection policies to ensure that equipment upgrades keep rental rates affordable and do not displace residents (1)
10. Pilot a block by block electrification project (1)

Not voted on

11. 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

12. Bulk buy electrification equipment to reduce costs
13. Use the permitting counter as an education hub
14. Electrify community hubs where the public gathers (e.g. schools, retirement facilities, key grocery stores)