REGULAR MEETING AGENDA

Date: 3/17/2021
Time: 6:00 p.m.
Regular Meeting Location: Zoom.us/join – ID# 915 4675 0502

NOVEL CORONAVIRUS, COVID-19, EMERGENCY ADVISORY NOTICE
On March 19, 2020, the Governor ordered a statewide stay-at-home order calling on all individuals living in the State of California to stay at home or at their place of residence to slow the spread of the COVID-19 virus. Additionally, the Governor has temporarily suspended certain requirements of the Brown Act. For the duration of the shelter in place order, the following public meeting protocols will apply.

Teleconference meeting: All members of the Environmental Quality Commission, city staff, applicants, and members of the public will be participating by teleconference. To promote social distancing while allowing essential governmental functions to continue, the Governor has temporarily waived portions of the open meetings act and rules pertaining to teleconference meetings. This meeting is conducted in compliance with the Governor Executive Order N-25-20 issued March 12, 2020, and supplemental Executive Order N-29-20 issued March 17, 2020.

- How to participate in the meeting
  - Access the regular meeting real-time online at:
    Zoom.us/join – Regular Meeting ID 915 4675 0502
  - Access the meeting real-time via telephone at:
    (669) 900-6833
    Meeting ID 915 4675 0502
    Press *9 to raise hand to speak

Subject to Change: Given the current public health emergency and the rapidly evolving federal, state, county and local orders, 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's website www.menlopark.org. The instructions for logging on to the Zoom webinar and/or the access code is subject to change. If you have difficulty accessing the Zoom webinar, please check the latest online edition of the posted agenda for updated information (https://www.menlopark.org/AgendaCenter/Environmental-Quality-Commission-4).

Regular Session (Zoom.us/join – ID# 915 4675 0502)

A. Call To Order

B. Roll Call – Elkins, Gaillard, Kabat, London, Martin, Payne, Price

C. Public Comment

The public may address the Environmental Quality Commission (EQC) on any subject not listed on the agenda. Each speaker can make public comment for a limit of three minutes once. The EQC cannot act on items not listed on the agenda other than to provide general information.

D. Regular Business

D1. Approve January 20 2021 and February 25 2021 minutes (Attachment)

D2. Informational presentation by Commissioner Gaillard and Kabat on the affordability of building electrification (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 prior to, 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.org. 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 Government Code §54954.2(a) or §54956. Members of the public can view electronic agendas and staff reports by accessing the City website at menlopark.org/agenda and can receive email notification of agenda and staff report postings by subscribing to the "Notify Me" service at menlopark.org/notifyme. Agendas and staff reports may also be obtained by contacting City Clerk at 650-330-6620. (Posted: 03/11/2021)

CITY OF MENLO PARK

REGULAR MEETING MINUTES – DRAFT

Date: 1/20/2021
Time: 5:00 p.m.
Regular Meeting Location: Zoom.us/join – ID# 915 4675 0502

A. Call to Order

Chair Price called the meeting to order at 5:10 p.m.

B. Roll Call

Present:	Elkins, Gaillard, Kabat, London (Vice Chair) (exited the meeting at 7:33 p.m.,) Martin, Price (Chair)
Absent:	Payne
Staff:	Rebecca Lucky- Sustainability Manager, Christian Bonner- City Arborist

C. Public Comment

- Peter Edmonds clarified his request about tree removals and asked about having former members of the Heritage Tree Task Force serve on the Environmental Quality Commission.

D. Regular Business

D1. Review and receive information regarding the state of the urban forest.

Chair Price introduced item. City Arborist, Christian Bonner, provided presentation (Attachment).

- Peter Edmonds requested clarification on the Heritage Tree Ordinance and enforcement of tree removals on the weekends.
- Judy Rocchio requested clarification on the total redwood trees removed, expressed concern over the number of trees being removed, the delay in replanting trees at the Willow Road and Highway 101 interchange, and the number of tree removals required for the San Francisquito Creek project.
- Brielle Johnck and Steve Schmidt expressed concern about tree removals required for the San Francisquito Creek project, requested increased oversight of the project, and requested the Environmental Quality Commission to add this project to their upcoming two-year work plan.
- Scott Marshall requested developing a comprehensive urban tree master plan to be included in the Environmental Quality Commission's upcoming two-year work plan.

D2. Review and discuss the draft two-year commission work plan prepared by a subcommittee of the Environmental Quality Commission (Attachment)

Chair introduces item. Commissioner Gaillard provides overview of recommendations from ad-hoc subcommittee consisting of members Elkins, Gaillard, Kabat.

Commissioner London exited the meeting at 7:33 p.m.

ACTION: Motion and second (Gaillard/Price), to approve and recommend to the City Council the Environmental Quality Commission's two-year work plan with two changes; 1) track citizen concerns on large scale tree removal projects and provide advice on future policy or plan improvements as it relates to tree removals and; 2) provide advice on developing an urban forest master plan to the City Council in year two, passed 5-0-2 (London and Payne absent).

D3. Review and discuss appointments to ad hoc subcommittees to implement the Environmental Quality Commission's two-year work plan (Attachment)

Chair Price introduces item.

ACTION: Motion and second (Kabat, Price), to remove Commissioner London from the Transportation Decarbonization and Climate Outreach subcommittees and add Commissioner Martin to Trees and Sustainable Initiatives subcommittee, passed 5-0-2 (London and Payne absent).

E. Reports and Announcements

E1. Reports and Announcements from staff and commissioners

Sustainability Manager Rebecca Lucky provided update on annual City Council work plan process for January/February, and Mayor/Vice Mayor transitions.

F. Adjournment

Chair Price adjourned the meeting at 8:04 p.m.

Minutes prepared by Rebecca Lucky, Sustainability Manager

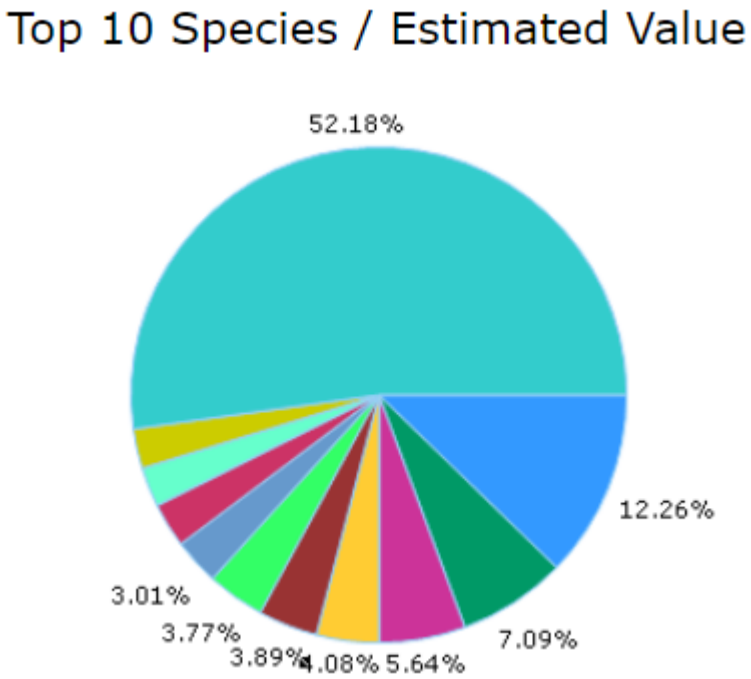
STATE OF THE URBAN FOREST

1/1/2020- 12/31/2020

URBAN FOREST OVERVIEW

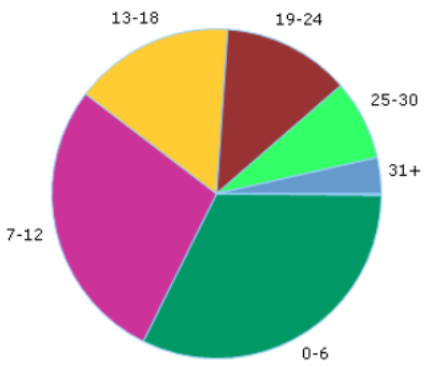
SPECIES COMPOSITION & ESTIMATE VALUE OF PUBLIC TREES

	Botanical	Common	Total	Pct.	Estimated Value
	Quercus agrifolia	COAST LIVE OAK	2,347	12.26%	$16,129,950.00
	Liquidambar styraciflua	AMERICAN SWEETGUM	1,357	7.09%	$8,183,330.00
	Platanus X hispanica	LONDON PLANE	1,079	5.64%	$3,841,430.00
	Eucalyptus rudis	DESERT GUM	780	4.08%	$587,300.00
	Quercus lobata	VALLEY OAK	745	3.89%	$2,376,910.00
	Magnolia grandiflora	SOUTHERN MAGNOLIA	721	3.77%	$5,391,260.00
	Pistacia chinensis	CHINESE PISTACHE	577	3.01%	$858,500.00
	Acer rubrum	RED MAPLE	556	2.90%	$437,810.00
	Eucalyptus spathulata	NARROW LEAFED GIMLET	495	2.59%	$705,190.00
	Lagerstroemia indica	CRAPE MYRTLE	495	2.59%	$506,910.00
	Other	OTHER	9,988	52.18%	$28,557,740.00
	Total Trees		**19,140**	**100%**	**$67,576,330.00**



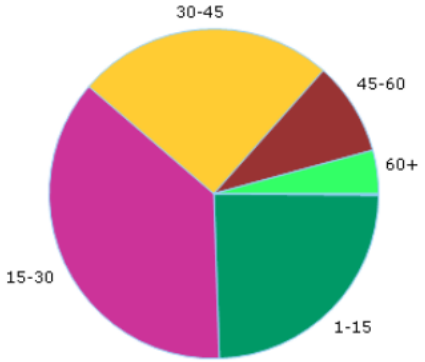
SIZE DISTRIBUTION OF PUBLIC TREES

Frequency By DBH



	DBH (inches)	Total	Pct.
	---	30	0.16%
	0-6	6,161	32.19%
	7-12	5,362	28.01%
	13-18	3,009	15.72%
	19-24	2,396	12.52%
	25-30	1,507	7.87%
	31+	675	3.53%
	Total Trees	**19,140**	**100%**

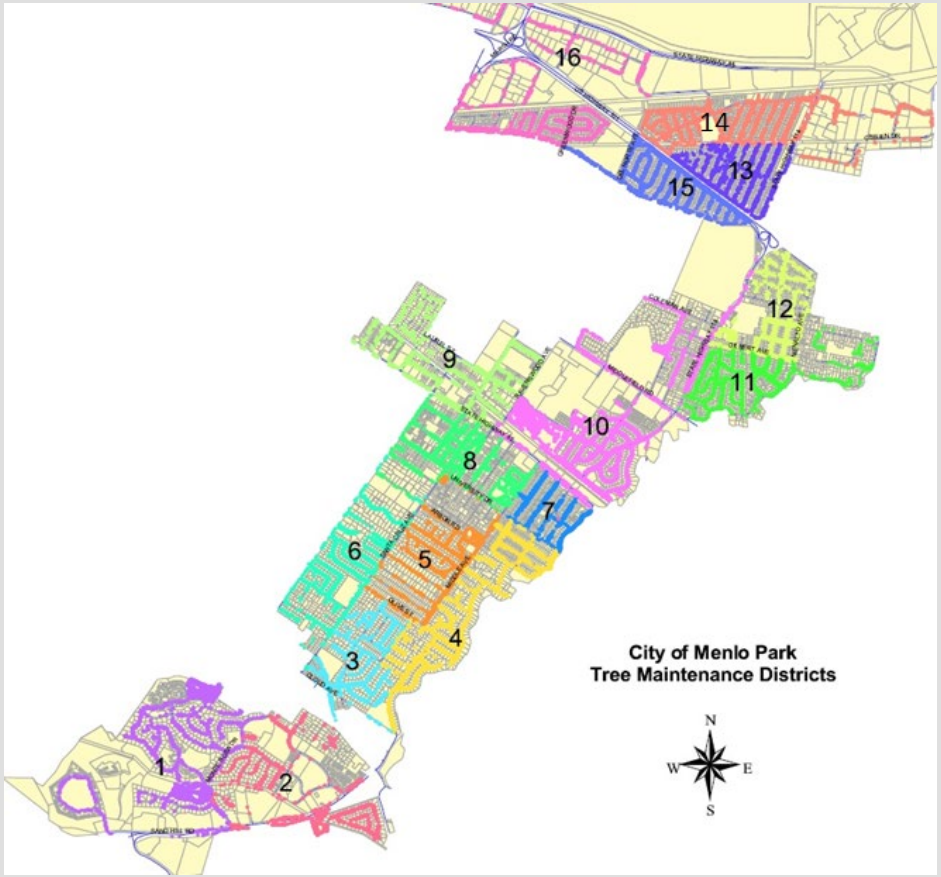
Frequency By Height



	Height (feet)	Total	Pct.
	---	29	0.15%
	1-15	4,657	24.33%
	15-30	7,043	36.80%
	30-45	4,838	25.28%
	45-60	1,758	9.18%
	60+	815	4.26%
	Total Trees	**19,140**	**100%**

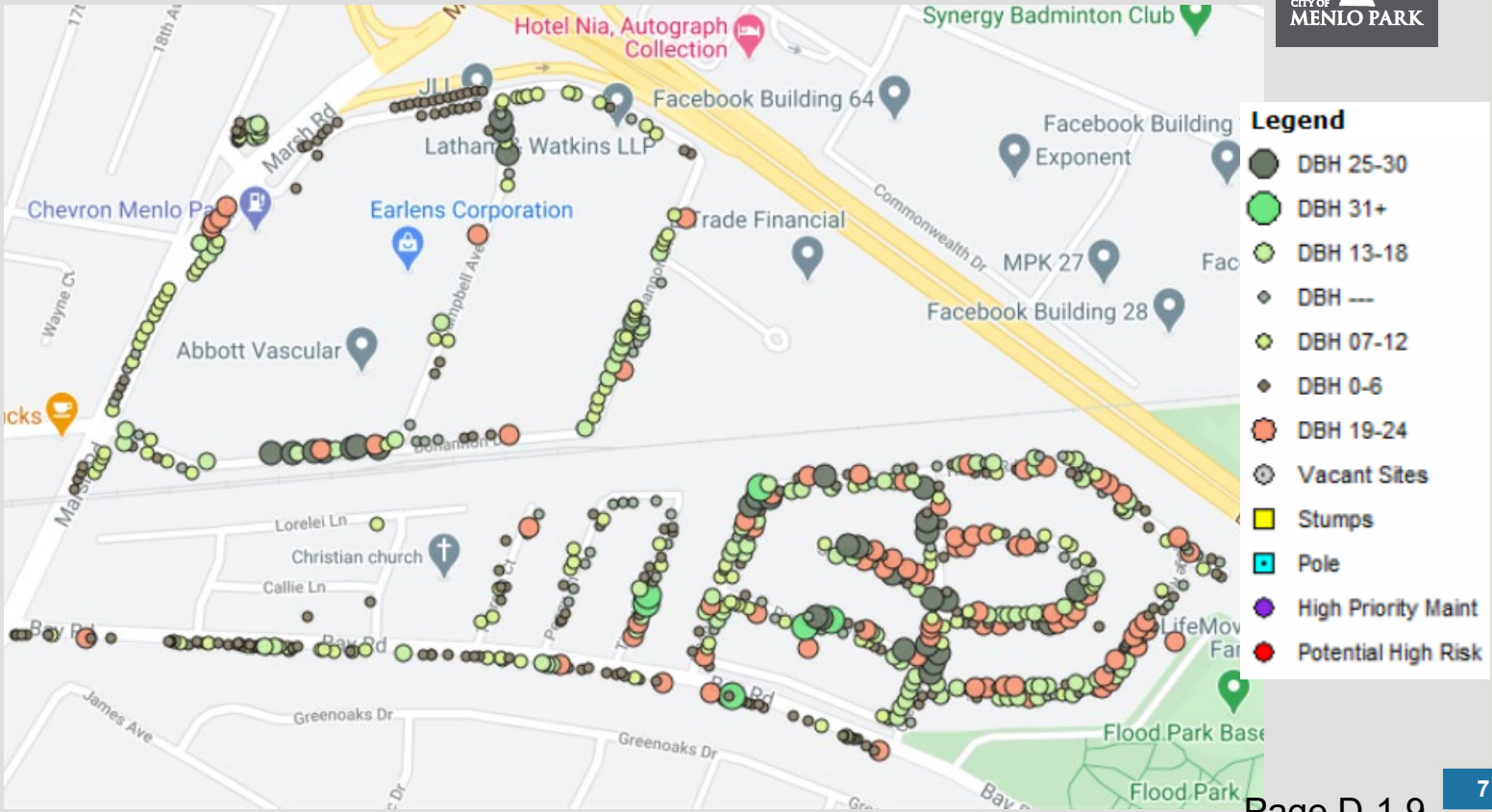
CITY TREE MAINTENANCE PROGRAM

STREET TREE MAINTENANCE PROGRAM

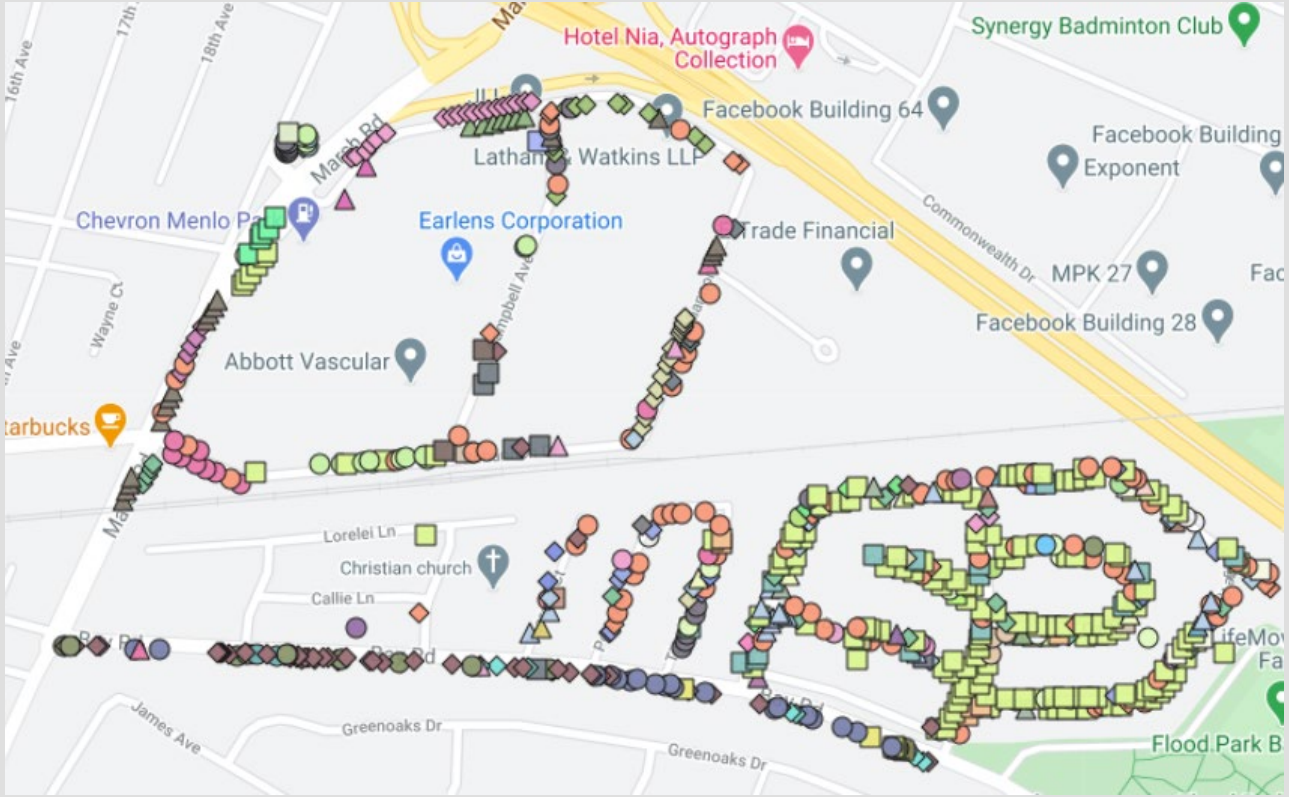


- 16 Districts
- 5 Year Cycle
  - Monitoring
  - Noticing
  - Pruning
  - Clean up

SUBURBAN PARK DISTRICT – TREE SIZE



SUBURBAN PARK – SPECIES



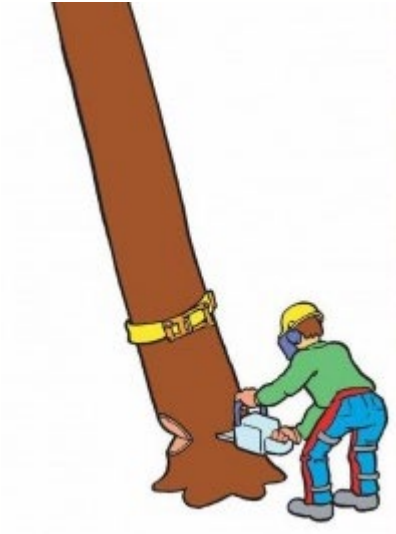

Google

PARK PRUNING MAINTENANCE PROGRAM

- 16 Parks & Recreation Use Areas
- 9 Facilities

EMERGENCY RESPONSE WORK

Tree removal vs. Tree planting



187 trees removed

206 Trees Planted

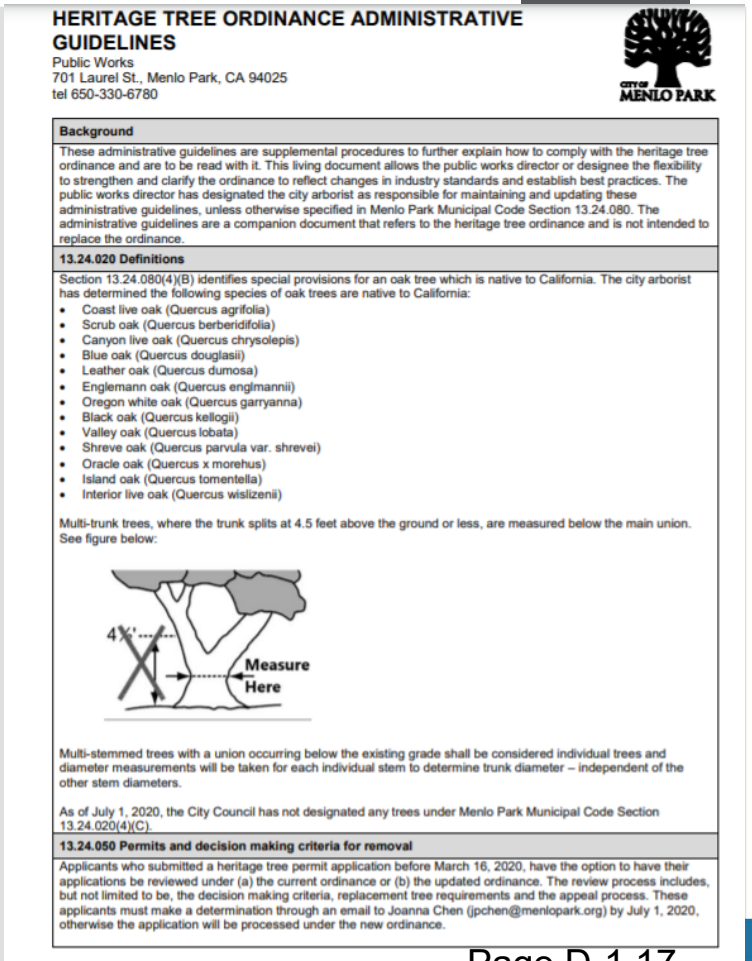
PIERCE ROAD TREE PLANTING

- **Sidewalk improvement project**
- **Mitigation funds for 1000 ECR Heritage Tree Removal**

HERITAGE TREE PERMITTING OVERVIEW

HERITAGE TREE ORDINANCE PROCEDURAL REVISIONS

- Administrative Guidelines
- List of pre-approved consulting arborists
- Permitting database with public access



HERITAGE TREE ORDINANCE ADMINISTRATIVE GUIDELINES

Public Works
701 Laurel St., Menlo Park, CA 94025
tel 650-330-6780

CITY OF MENLO PARK

Background

These administrative guidelines are supplemental procedures to further explain how to comply with the heritage tree ordinance and are to be read with it. This living document allows the public works director or designee the flexibility to strengthen and clarify the ordinance to reflect changes in industry standards and establish best practices. The public works director has designated the city arborist as responsible for maintaining and updating these administrative guidelines, unless otherwise specified in Menlo Park Municipal Code Section 13.24.080. The administrative guidelines are a companion document that refers to the heritage tree ordinance and is not intended to replace the ordinance.

13.24.020 Definitions

Section 13.24.080(4)(B) identifies special provisions for an oak tree which is native to California. The city arborist has determined the following species of oak trees are native to California:

- Coast live oak (Quercus agrifolia)
- Scrub oak (Quercus berberidifolia)
- Canyon live oak (Quercus chrysolepis)
- Blue oak (Quercus douglasii)
- Leather oak (Quercus dumosa)
- Englemann oak (Quercus englmannii)
- Oregon white oak (Quercus garryanna)
- Black oak (Quercus kellogii)
- Valley oak (Quercus lobata)
- Shreve oak (Quercus parvula var. shrevei)
- Oracle oak (Quercus x morehus)
- Island oak (Quercus tomentella)
- Interior live oak (Quercus wislizenii)

Multi-trunk trees, where the trunk splits at 4.5 feet above the ground or less, are measured below the main union. See figure below:

Multi-stemmed trees with a union occurring below the existing grade shall be considered individual trees and diameter measurements will be taken for each individual stem to determine trunk diameter – independent of the other stem diameters.

As of July 1, 2020, the City Council has not designated any trees under Menlo Park Municipal Code Section 13.24.020(4)(C).

13.24.050 Permits and decision making criteria for removal

Applicants who submitted a heritage tree permit application before March 16, 2020, have the option to have their applications be reviewed under (a) the current ordinance or (b) the updated ordinance. The review process includes, but not limited to be, the decision making criteria, replacement tree requirements and the appeal process. These applicants must make a determination through an email to Joanna Chen (jpchen@menlopark.org) by July 1, 2020, otherwise the application will be processed under the new ordinance.

HERITAGE TREE PERMITTING SUMMARY (2020)

- Permit applications received: 318 (Trees)
- Trees approved for removal: 207
- Trees removal permits denied:13
- Applications Withdrawn: 4
- Permits Pending: 94

THANK YOU

Commission work plan guidelines

Step 1 Review purpose of Commission as defined by Menlo Park City Council Policy 3-13-01.

Step 2 Develop a mission statement that reflects that purpose.

Step 3 Discuss and outline any priorities established by City Council.

Step 4 Brainstorm goals, projects, or priorities of the Commission and determine the following:

A. Identify priorities, goals, projects, ideas, etc.
B. Determine benefit, if project or item is completed
C. Is it mandated by State of local law or by City Council direction?
D. Would the task or item require a policy change at City Council level?
E. Resources needed for completion? (Support staff, creation of subcommittees, etc.)
F. Completion time? (1-year, 2-year, or longer term?)
G. Measurement criteria? (How will you know you are on track? Is it effective? Etc.)

Step 5 Prioritize projects from urgent to low priority.

Step 6 Prepare final work plan for submission to City Council for review and approval in the following order:
- Work plan cover sheet, listing of members, priority list, work plan worksheet – Steps 1 through 8.

Step 7 Use your “approved” work plan throughout the term of the plan as a guide to focus in on the work at hand.

Step 8 Report out on work plan priorities to the City Council, which should include:

A. List of “approved” priorities or goals
B. Status of each item, including any additional resources required in order to complete
C. If an item that was on the list is not finished, then indicate why it didn’t occur and list out any additional time and/or resources that will be needed in order to complete

Mission Statement

The Environmental Quality Commission (EQC) is committed to helping the City of Menlo Park to be a leading sustainable city that is well positioned to manage present and future environmental impacts, including the grave threat of climate change. The Environmental Quality Commission is charged primarily with advising the City Council on matters involving environmental protection, environmental improvement, sustainability and climate change.

Environmental Quality Commission
Work Plan for 2021-2022

Commission members listing

Commissioner (Chair) Ryann Price

Commissioner (Vice Chair) Janelle London

Commissioner Leah Elkins

Commissioner Josie Gaillard

Commissioner Tom Kabat

Commissioner Deborah Martin

Commissioner James Payne

Environmental Commission
Priority List

The Environmental Quality Commission has identified the following priorities during 2021-2022:

1.	**Climate Action Plan (CAP) –** Continue to recommend/advise on implementation of the City's adopted 2030 Climate Action Plan initiatives to achieve or surpass the City's greenhouse gas (GHG) reduction target, which includes: • Adoption of an existing building electrification policy (Action #1) • Promotion of City goals for increasing EVs and decreasing gasoline sales (Action #2) • Implementation of a program or policy to expand access to EV charging for multi-family and commercial properties (Action #3) • Reduction of vehicle miles traveled (VMT) by 25% or an amount recommended by the Complete Streets Commission (Action #4) • Elimination of fossil fuels from municipal operations, including fleet vehicles, gardening equipment, furnaces, water heaters, pool heaters, etc. (Action #5) • Development of a climate adaptation plan to protect the community from sea level rise and flooding (Action #6)
2.	**Urban Canopy Preservation –** Continue to recommend/advise development of a comprehensive urban canopy strategy for Menlo Park, which includes monitoring the effectiveness of the City's Heritage Tree Ordinance, hearing heritage tree appeals and consider establishing an urban canopy inventory.
3.	**Green and Sustainable Initiatives –** Support sustainability initiatives, as needs arise, which may include but not be limited to habitat protection, healthy ecology, environmental health protection, healthy air, surface water runoff quality, water conservation and waste reduction.

Environmental Quality Commission
Work Plan

Step 1

Review purpose of Commission as defined by Menlo Park City Council Policy 3-13-01	The Environmental Quality Commission is charged with advising the City Council on the following matters: • Mitigating climate change by reducing community-wide greenhouse gas emissions to zero as rapidly as possible and inspiring other cities to follow, • Preparing the community for the effects of climate change, especially the threat of sea level rise, flooding and drought, • Preserving heritage trees, maintaining the urban canopy, making determinations on appeals of heritage tree removal permits and organizing an annual Arbor Day tree planting event, • Advising on programs and policies related to all other areas of environmental sustainability, including protection of natural areas, recycling and solid waste reduction, environmentally sustainable practices, air and water pollution prevention, and water and energy conservation.

Step 2

Develop or review a mission statement that reflects that purpose	The Environmental Quality Commission (EQC) is committed to helping the City of Menlo Park to be a leading sustainable city that is well positioned to manage present and future environmental impacts, including the grave threat of climate change. The Environmental Quality Commission is charged primarily with advising the City Council on matters involving environmental protection, environmental improvement, sustainability and climate change.

Step 3

Discuss any priorities already established by City Council	• Make gains on our Climate Action Plan

Step 4 **The goals and priorities identified below are not listed in order of magnitude.*

*Brainstorm goals, projects or priorities of the Commission	Benefit, if completed	Mandated by State/local law or by City Council direction?	Required policy change at City Council level?	Resources needed for completion? Staff or creation of subcommittees?	Estimated completion time	Measurement criteria How will we know how we are doing?
Climate Action Plan (CAP) – Continue to recommend/advise on implementation of the City's adopted 2030 Climate Action Plan initiatives to achieve or surpass the City's greenhouse gas (GHG) reduction target, which includes: • Action #1: Review and recommend/advise on a policy to phase out the use of fossil fuels of existing buildings • Action #2: Advise on whether to work with BGI for promoting citywide goals of increasing EVs and decreasing gasoline sales • Action #3: Review and recommend/advise on policies and programs to increase access to EV charging for multi family and commercial properties • Action #4: Recommend that Council request CAP action #4 be included on Complete Streets	• Other cities inspired to join us in adopting bold climate action, as happened with City's all-electric Reach Code • Reduced GHG emissions • Reduced air pollution • Reduced traffic congestion • Improved public health • Increased community engagement for emissions reductions • Reduced risk of stranding fossil fuel assets • Increased equity and environmental justice • Increased preparedness for sea level rise and other climate threats • Demonstrated environmental leadership • Improved transparency on city goals and activities to meet GHG targets	Yes ☑ No ☐	Yes ☑ No ☐	• Subcommittees • Possible partnerships with organizations, businesses, other commissions • Staff time • Consultants/contractors	2 years	1. City reports progress on CAP metrics such as gasoline sales, EV registrations, natural gas sales, water heater replacements, etc. 2. City adopts policy for phasing out the use of fossil fuels in existing buildings 3. City launches program to assist multi-family and commercial building owners to install EV charging 4. Complete Streets proposes a VMT reduction goal 5. City makes progress on developing a climate adaptation plan 6. Other cities copy Menlo Park's climate policies and programs

Commission Work Plan (reduce vehicle miles traveled (VMT) by 25% or an amount recommended by the Complete Streets Commission) • Action #5: Continue to advise/recommend ways to electrify municipal buildings, fleet and landscaping equipment • Action #6: Continue to advise/recommend a climate adaptation plan to protect the community from sea level rise and flooding • Recommend 2021-22 Climate Action for Council Adoption • Advise/recommend Council support for State adoption of impactful impactful CALGreen and energy reach codes for the 2022 building code update • Continue to provide recommendations/advice that improves communication with the community about the Climate Action Plan • Recommend City strategy for sharing our policies and analysis with other cities to inspire and help others adopt bold climate action						

Urban canopy preservation – Continue to recommend/ advise development of a comprehensive urban canopy strategy for Menlo Park, which includes monitoring the effectiveness of the new Heritage Tree Ordinance, hearing heritage tree appeals, and consider establishing an urban canopy inventory. • Receive update on implementation and operation of the Heritage Tree Ordinance and recommend adjustments as needed • Research ways other cities measure health of urban forest and make a recommendation to Council	• Improved public awareness and satisfaction with Heritage Tree policies • Efficient functioning of the Heritage Tree policies	Yes ☑ No ☐	Yes ☐ No ☑	• Subcommittee • Staff time budgeted	Ongoing	• Reduction in the number of healthy trees removed • Increase in the diversity and quality of trees within the entire urban canopy • Improved coordination with the planning process • Deliver recommendation on conducting inventory and catalogue of urban tree canopy
Green and sustainable initiatives – Support sustainability initiatives, as needs arise, which may include but not be limited to habitat protection, healthy ecology, environmental health protection, healthy air, surface water runoff quality, water conservation and waste reduction. • Develop recommendation for pesticide posting ordinance • Support initiatives improving air and water quality	• Reduced cases of asthma • Clean air • Clean water • Reduced environmental impacts on health • Reduced exposure to pollutants • More efficient water usage • Critical habitat preserved • Less waste generated	Yes ☑ No ☐	Yes ☑ No ☐	• Create Subcommittee, if needed	Ongoing	• Council and community view Commission as responsive to environmental concerns

• Support initiatives protecting environmental health • Support initiatives that reduce waste • Support initiatives that conserve water • Support initiatives that improve the quality of water runoff in the City						

Step 5

List identified goals, priorities and/or tasks for the Commission	**Prioritize tasks by their significance			
	1 Urgent	2 1-year	3 2-year	4 Long term
Climate Action Plan (CAP) – Continue to recommend/advise on implementation of the City's adopted 2030 Climate Action Plan initiatives to achieve or surpass the City's greenhouse gas (GHG) reduction target.	• Action #1: Review and recommend/advise on policies to phase out the use of fossil fuels of existing buildings • Action #2: Advise on whether to work with BGI to promote citywide goals of increasing EVs and decreasing gasoline sales • Action #4: Recommend that Council request CAP action #4 be included on Complete Streets Commission Work Plan (reduce vehicle miles traveled (VMT) by 25% or an amount recommended by the Complete Streets Commission) • Recommend 2021-22 Climate Action for Council Adoption	• Action #3: Review and recommend/advise on policies and/or programs to increase access to EV charging for multi family and commercial properties • Action #5: Continue to provide recommendations/advice to electrify municipal buildings, fleet and landscaping equipment • Advise/recommend Council support for State adoption of impactful impactful CALGreen and energy reach codes for the 2022 building code update	• Action #6: Continue to provide recommendations/advice in developing a climate adaptation plan to protect the community from sea level rise and flooding • Continue to provide recommendations/advise on new climate actions to be adopted by Council in 2021	• Continue to provide recommendations/advice that improves communication with the community about the Climate Action Plan • Recommend City strategy for sharing our policies and analysis with other cities to inspire and help others adopt bold climate action
	Track citizen concerns on large	• Receive update on operation and	• Provide advice on developing an	

Urban canopy preservation – Continue to recommend/ advise development of a comprehensive urban canopy strategy for Menlo Park, which includes monitoring the effectiveness of the new Heritage Tree Ordinance, hearing heritage tree appeals, and consider establishing an urban canopy inventory.	scale tree removal projects and provide advice on future policy improvements as it relates to tree removals	implementation of the Heritage Tree Ordinance and recommend adjustments as needed	urban forest master plan to City Council	
Green and sustainable initiatives – Support sustainability initiatives, as needs arise, which may include but not be limited to habitat protection, healthy ecology, environmental health protection, healthy air, surface water runoff quality, water conservation and waste reduction.				• Develop recommendation for pesticide posting ordinance • Support initiatives improving air and water quality • Support initiatives protecting environmental health • Support initiatives that reduce waste • Support initiatives that conserve water • Support initiatives that improve the quality of water runoff in the City

Step 6 Prepare final work plan for submission to the City Council for review, possible direction and approval and attach the Worksheets used to determine priorities, resources and time lines.

Step 7 Once approved; use this plan as a tool to help guide you in your work as an advisory body.

Step 8 Report out on status of items completed. Provide any information needed regarding additional resources needed or And to indicate items that will need additional time in order to complete.

Memo
To: EQC
From: Commissioner Josie Gaillard
Re: EQC Subcommittee Descriptions

At our last meeting, the EQC requested detailed descriptions of the goals and purpose of each subcommittee that I proposed to address the Climate Action Plan (CAP). As a reminder, I recommended that we create the following subcommittees to organize our work:

- Building Decarbonization Subcommittee (2 people)
- Transportation Decarbonization Subcommittee (3 people)
- Climate Adaptation Subcommittee (2 people)
- Climate Outreach Subcommittee (3 people)

In reviewing the EQC's work plan with the Work Plan Subcommittee, I suggest adding one more subcommittee to the list:

- Trees and Sustainable Initiatives Subcommittee (2 people)

The proposed list of five EQC subcommittees places the appropriate emphasis, I believe, on tackling climate change without ignoring the other intended functions of the EQC.

Below are descriptions and suggested goals for each of the proposed subcommittees for your review and consideration.

Building Decarbonization Subcommittee (Commissioners Gaillard and Kabat)
This subcommittee of 2-3 people will assist staff in developing policies and plans to convert 95% of Menlo Park's existing buildings to all-electric by 2030. Work will include:

- Researching the technical and financial feasibility of converting the City's existing building stock to all-electric
- Researching financing options available to assist community members with conversions
- Researching policy and funding mechanisms to assist low-income households with conversions
- Reviewing legal frameworks for key policies
- Facilitating City collaboration with key regional agencies, such as Peninsula Clean Energy
- Collaborating with City staff and contractors in drafting key policies
- Preparing materials to help educate the public about building electrification
- Assisting City staff in completing electrification of municipal buildings
- Developing Council recommendations for 2021 CAP actions related to building decarbonization

This subcommittee supports CAP actions #1 & 5.

Transportation Decarbonization Subcommittee (Commissioner Payne)
This subcommittee of 3 people will assist staff in developing policies and plans to eliminate the use of fossil fuels in transportation in Menlo Park by 2030. Work will include:

- Researching the technical and financial feasibility of policies and programs to increase access to EV charging, especially during the day and for residents of multi-family housing
- Reviewing the offerings of service providers who may be able to assist the City and community members in building out its EV charging network
- Reviewing legal frameworks for proposed policies
- Serving as a liaison to the Complete Streets Commission in developing and achieving a City goal to reduce Vehicle Miles Traveled by 25% through 1) rezoning to support increased housing density near transit and 2) the build out of a network of connected bike/ped paths throughout town
- Tracking and promoting the City's goals of 1) making all new vehicles be electric by 2025 and 2) reducing gasoline sales each year by 10%
- Assisting City staff in converting the municipal vehicle fleet to all-electric by identifying new electric vehicle offerings for staff and Council consideration
- Developing Council recommendations for 2021 CAP actions related to transportation decarbonization

This subcommittee supports CAP actions #2, 3, 4 and 5

Climate Adaptation Subcommittee (Commissioners Elkins and Price)
This subcommittee of 2 people will research and inform City staff and Council on strategies for preparing the City for the effects of climate change. Work will include:

- Attending meetings of the San Mateo County Flood and Sea Level Rise Resiliency District Board and reporting back to EQC
- Working with staff and Council members to engage community members who will be most affected by sea level rise to educate them and take their input on how best to address the issue
- Tracking Menlo Park's plans for sea walls and/or levees to protect the community against sea level rise and keeping the EQC apprised of those plans
- Making recommendations to City Council on proposed development in the City's future flood zones
- Researching other potential effects of climate change on the City, including wildfire, drought and heat waves, and identifying plans to address those effects
- Developing a proposal for capturing 10% of the City's 2005 greenhouse gas emissions by 2030 though direct carbon removal

This subcommittee supports CAP action #6

Climate Outreach Subcommittee (Commissioners Gaillard and Kabat)
This subcommittee of 3 people will devise strategies for educating members of the public about Menlo Park's climate action plan to reduce greenhouse gas emissions by 90% by 2030. Work will include:

- Identifying opportunities for Staff and the EQC to educate the public about climate change and Menlo Park's climate action plan
- Preparing educational materials and promoting them, either in conjunction with Staff or as private citizens

- Devising a plan, including proposed venues, for regularly presenting the public with information about ways to electrify buildings, decrease gasoline consumption, reduce vehicle miles traveled and prepare for climate-related emergencies
- Relaying to EQC any public feedback on the CAP and related policy proposals
- Supporting the City's formal outreach effort on climate policies, as directed by Staff

This subcommittee supports CAP action #1, 2, 3, 4 and 6

Trees and Sustainable Initiatives Subcommittee (Commissioners Elkins, Martin and Payne)

This subcommittee of 2 people will support Staff in addressing all sustainability matters not addressed by the Climate Action Plan. Work will include:

- Organizing the City's Arbor Day Tree Planting event
- Assessing the effectiveness of the City's new Heritage Tree Ordinance and making recommendations to EQC for any changes needed
- Supporting Staff in development of an inventory and catalogue of the urban tree canopy
- Receiving public concern related to non-climate sustainability concerns, including: habitat protection, healthy ecology, environmental health protection, healthy air, surface water runoff quality, water conservation and waste reduction
- Recommending appropriate responses or programs to address public concerns about non-climate sustainability matters

This subcommittee supports EQC goals for Urban Canopy Preservation and Green and Sustainable Initiatives not related to the Climate Action Plan

CITY OF MENLO PARK

REGULAR MEETING MINUTES – DRAFT

Date: **2/25/2021**
Time: **5:00 p.m.**
Special Meeting Location: Zoom.us/join – ID# 915 4675 0502

A. Call to Order

Chair Price called the meeting to order at 5:06 p.m.

B. **Roll Call**

Present: Elkins, Gaillard, Kabat, London (Vice Chair) (left at 7:33), Martin, Price (Chair) (arrived at 5:12), Payne
Absent: None
Staff: Rebecca Lucky- Sustainability Manager

C. **Public Comment**

None.

D. **Regular Business**

D1. Approve October 21 2020, November 18 2020, December 16 2020 and January 20 2021 minutes

Chair Price introduced item.

ACTION: Motion and second (Gaillard/Payne) to approve October 21 2020, November 18 2020, and December 16 2020, and include January 20 2021 in the next agenda, passed 6-0-1 (Price absent).

D2. Provide a recommendation to the City Council for the implementation of Climate Action Plan strategy No.3 (expand access to electric vehicle charging infrastructure)

Chair introduces item. Sustainability contractor, Candise Almendral provided a presentation (Attachment).

ACTION: Motion and second (Price/Gaillard), to request that the City Council leverage their relationships with existing with multifamily property owners, and have at least 10 formal conversations with multifamily property owners in hopes to have at least one EV charger installed at two multifamily properties by August 31, 2021, passed unanimously.

E. **Reports and Announcements**

E1. Reports and Announcements from staff and commissioners

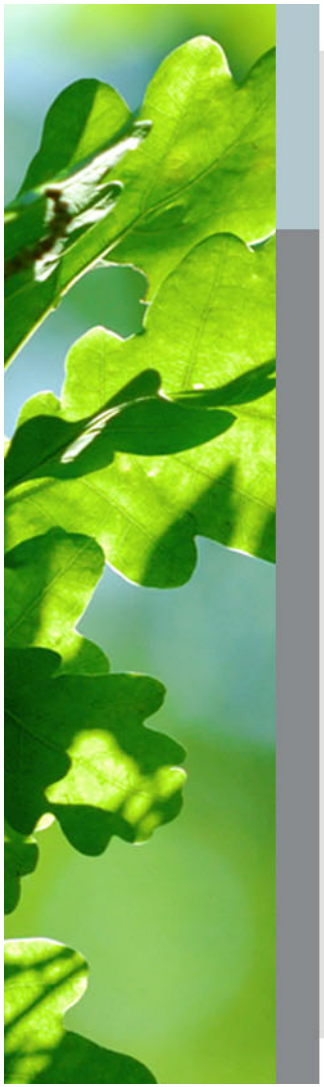
F. **Adjournment**

Chair Price adjourned the meeting at 7:25 p.m.

Minutes prepared by Rebecca Lucky, Sustainability Manager

CAP STRATEGY #3 (EXPAND ACCESS TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE)

Candise Almendral, MuniPC Sustainability

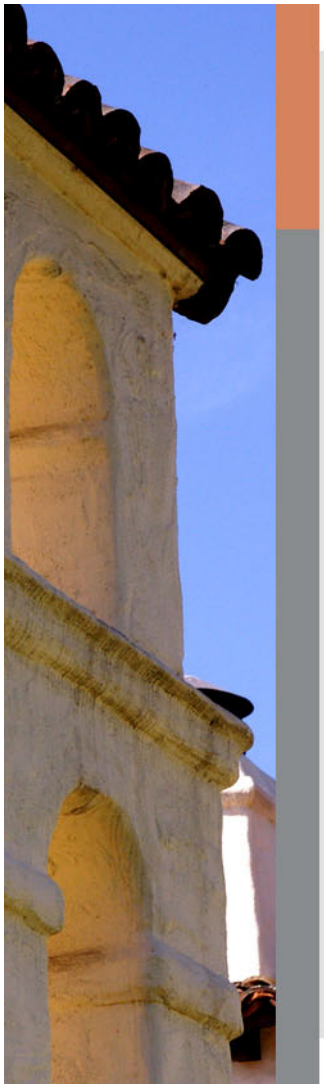


EXPANDING ACCESS TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

- Gap analysis completed, major finding: less than 2.5% of multifamily properties have access to charging within ≤0.25 miles of their home.

- Access to at-home charging
  - **Major factor in EV adoption** (CAP strategy 2)
  - Meaningfully increases equity
  - Decreases charge and/or drive time (CAP strategy 4)

Source: Transportation Research Board and National Research Council. 2015. Overcoming Barriers to Deployment of Plug-in Electric Vehicles



ENVIRONMENTAL QUALITY COMMISSION RECOMMENDATIONS

- Focus on the expansion of on-site charging for existing multifamily properties
  - Achieve carbon neutral by 2030
  - Address long term equity issues related to charging preference, access, and cost
- Using combination of requirements, education, and incentives
- Primary emphasis on access to Level 1 charging (standard household outlet)
  - Level 2 where feasible

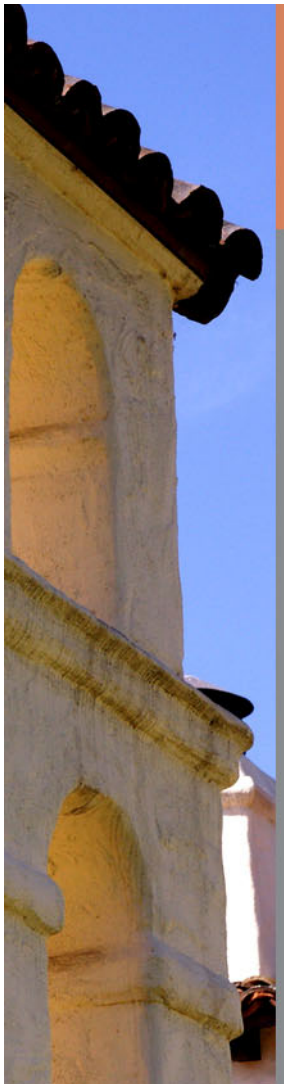
CITY COUNCIL DIRECTION JANUARY 2021

- Staff recommended developing various policy requirements (reach codes, time of sale, etc.) that could expedite and leverage available incentives for Level 1 charging at existing multifamily properties in order to achieve carbon neutrality in transportation by 2030.
  - This would also coincide with existing efforts around building electrification (CAP No.1)

- City Council did not approve $155,000 mid-year budget request to complete the policy analysis for fund year 2020-21 and directed staff to return with a recommendation on how to implement this CAP strategy using an incentive based/marketing approach.

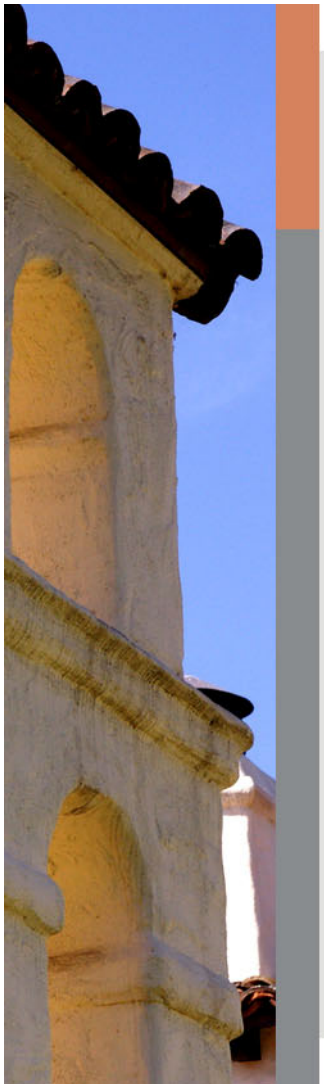
RECENTLY ADOPTED STATE POLICY

- Executive Order N-79-2020 includes the following goals:
  - 2/2021: Governor's Office of Business and Economic Development released California Zero-Emission Vehicle (ZEV) Market Development Strategy
  - 7/2021: California State Transportation Agency, Department of Transportation, and California Transportation Commission shall identify *near term* actions, and *investment strategies*
  - **2035: 100 percent *new* in-state light-duty car sales will be ZEV**
  - 2045: 100 percent of medium- and heavy-duty vehicles for all operations *where feasible*



FUNDING AND INCENTIVES PENINSULA CLEAN ENERGY (STATE AND PCE FUNDS)

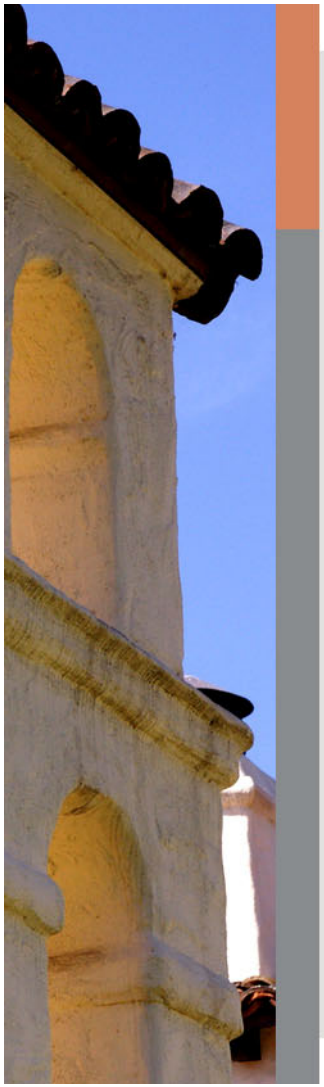
- Represents two distinct funding pools:
  - CALeVIP (state): $20M is currently oversubscribed and all available funds have been provisionally reserved
  - PCE: $4M created to service critical market segments not included in the CALeVIP program (i.e., multifamily properties with assigned parking, etc.)
    - Level 1: up to $2000 per connector
    - Level 2: up to $5500 per connector or 75% of the project costs
    - Up to $4000 in electric panel upgrade
    - Free technical assistance to maximize incentive
- Level 1 incentive is anticipated to cover most (if not all) project costs
- Level 2 incentive is anticipated to cover at least 75% of project costs



FUNDING AND INCENTIVES BAY AREA AIR QUALITY MANAGEMENT DISTRICT

- Charge! Provides $6M in funds:
  - Level 1: up to $1500 per connector
  - Level 2: up to $7000 per connector or 75% of the project costs
  - All project applications will be scored and ranked; projects at multifamily properties among those that receive higher priority

- Application for this program is still **open**
  - All program applicants **must** attend a pre-application workshop
    - Remaining workshop scheduled March 2, 2021
  - All applications must be submitted on or before March 18, 2021



INCENTIVE CONSIDERATIONS

- All current incentives are regional
  - CALeVIP incentives are available to all the customers of five local utilities (including PCE)
  - PCE incentives are available to all its customers
  - BAAQMD incentives are available to the nine counties surrounding the San Francisco Bay; Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma
- Incentives are slowly transitioning to service multifamily properties
  - Although identified as a critical market segment, agencies continue to struggle to increase property owner participation

SUMMARY OF EV CHARGING INFRASTRUCTURE FOR MULTIFAMILY PROPERTIES BY TYPE (>4 UNITS)

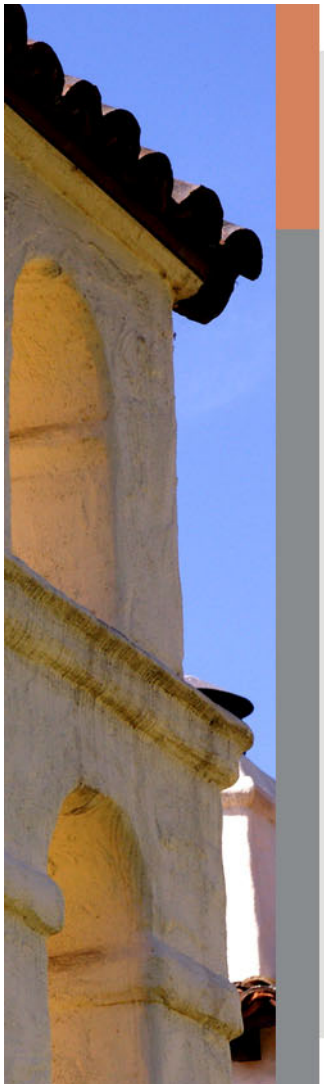
Multifamily property type	Total units	Public EV charging on-site	% living units with EV charging on-site	Public EV charging ≤0.25 miles	% living units with public EV charging ≤0.25 miles
Total	**4,368**	**58**	**1.33%**	**87**	**1.99%**
Fourplex	920	0	0.00%	12	1.30%
5-9 units	973	0	0.00%	12	1.23%
10-19 units	644	0	0.00%	12	1.86%
20-49 units	409	2	0.49%	39	9.54%
50+ units	1,422	56	3.94%	12	0.84%

KEY CONSIDERATIONS FOR EV CHARGING INFRASTRUCTURE AT EXISTING MULTIFAMILY PROPERTIES

- Capital needed to install Level 1 charging at existing multifamily properties in Menlo Park (>4 units): **$8.7M**
  - Not including panel or transformer upgrade
  - Estimated cost far exceed available incentives

- Incentives alone will not cover the full cost to transition all of Menlo Park's existing multifamily properties with Level 1 charging, which will be necessary for community members to make the transition to electric vehicles.

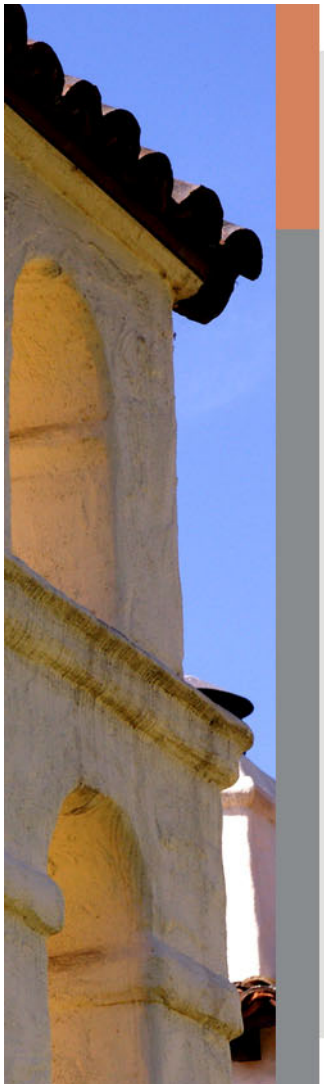
- Incentives can be monitored to help inform a policy development in the future.



STAFF RECOMMENDATION

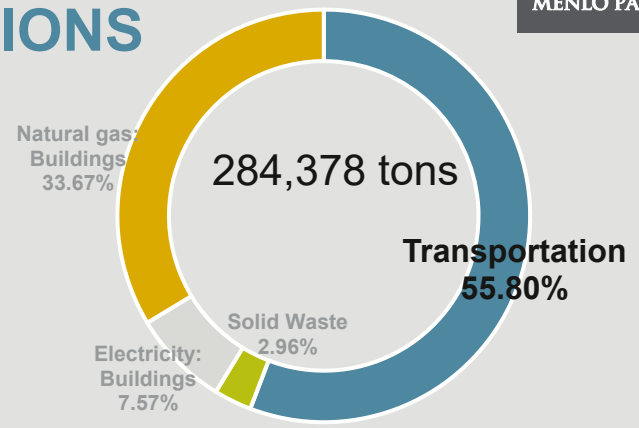
- Monitor state ZEV market development and investment strategy development and implementation
  - Provide local outreach for statewide efforts and programs to the extent possible within current staff capacity and communication mediums.
- Monitor PCE and BAAQMD incentive program implementation
  - Amplify PCE and BAAQMD incentive program marketing efforts to the maximum extent possible using existing communication mediums.
- Report efficacy and progress of these efforts in early 2022 to inform next steps

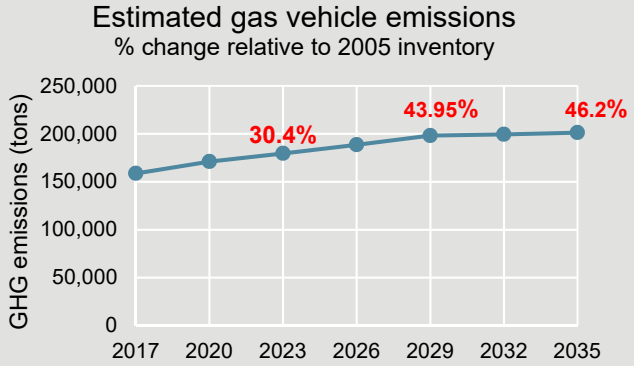
THANK YOU

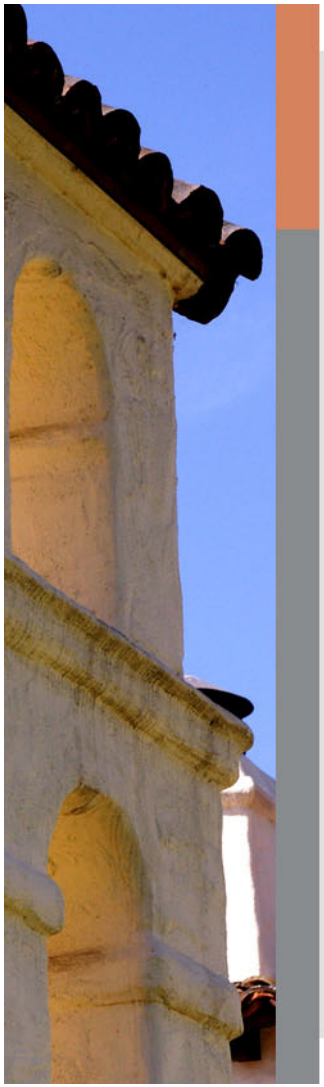


CLIMATE ACTION GOAL AND COMMUNITY GREENHOUSE GAS EMISSIONS

- July 2020: City Council adopted the goal to become carbon neutral by 2030
- Most recent 2017 data shows communitywide emissions have decreased to 284,378 tons (18.6%)
- However, gasoline vehicle emissions are predicted to **increase** to 198,525 tons by 2030

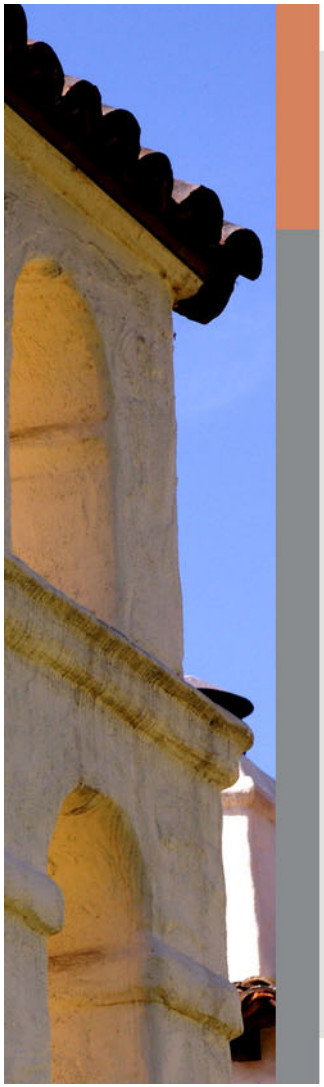






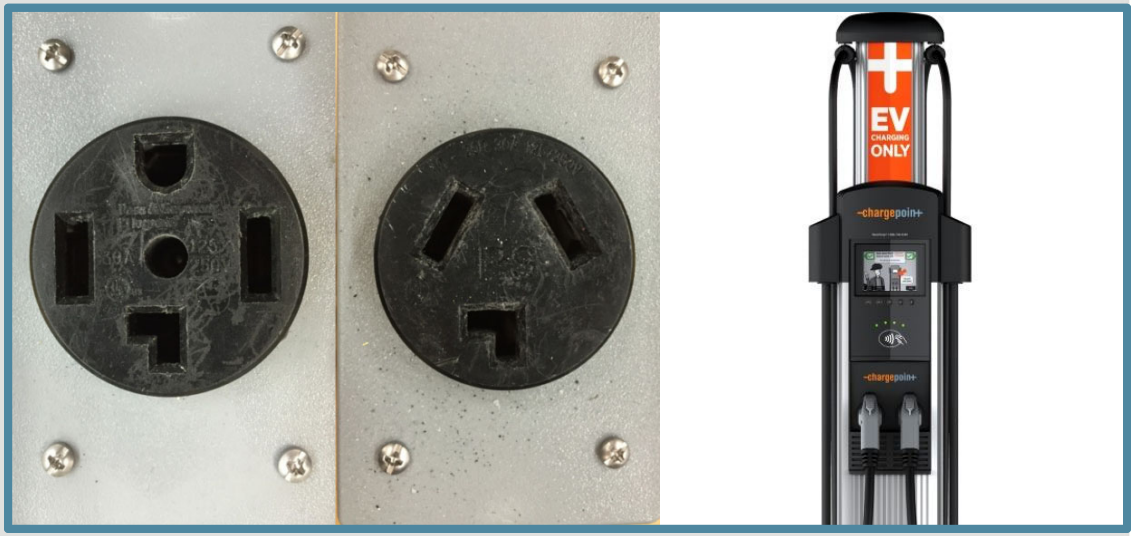
CHARGING TYPES

AC Level One	AC Level Two	DC Fast Charge
		
Voltage 120v 1-Phase AC	**Voltage** 208V or 240V 1-Phase AC	**Voltage** 208 or 480V 3-phase AC
Amps 12-16 Amps	**Amps** 12-80 Amps (typ. 32 Amps)	**Amps** <125 amps (typ. 60 amps)
Charging loads 1.4 to 1.9 KW	**Charging loads** 2.5 to 19.2 kW (typ. 7 kW)	**Charging loads** <90 kW (typ. 50 kW)
Charge time 3-5 Miles of range per hour	**Charge time** 10-20 miles of range per hour	**Charge time** 80% Charge in 20-30 minutes



CHARGING TYPES

Level 1



Level 2

CHARGING TIME AND COST

- In most cases, public charging can more than double the price of at-home charging
  - Multifamily residents cannot take advantage of time of use or specialized electricity rates; cost of ownership is often higher
- Even the fastest charging (DCFC) is still a significant time investment

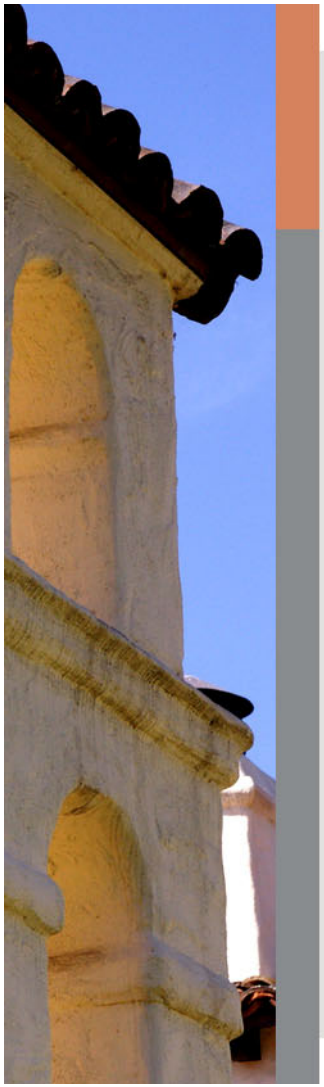
EV charging type	Estimated range added per hour	Average cost	Total charge time
Level 1 (at home)	5 miles/hour	$5.00	20 hours
Level 2 (public)	13-25 miles/hours	$12.00	8 hours
Direct current fast charging (DCFC)	100+ miles/hour	$13.50	45 minutes

SUMMARY OF EV CHARGING INFRASTRUCTURE FOR MULTIFAMILY PROPERTIES BY LOCATION (>4 UNITS

Map area	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
Citywide	4,368	58	1.33%	87	1.99%
Belle Haven	1,062	24	2.26%	33	3.11%
The Willows & District 2	628	0	0.00%	6	0.96%
District 3 west of Linfield Oaks	710	0	0.00%	36	5.07%
Linfield Oaks	343	0	0.00%	0	0.00%
Downtown	1,081	0	0.00%	12	1.11%
Allied Arts	37	0	0.00%	0	0.00%
Sharon Heights	507	34	6.71%	0	0.00%

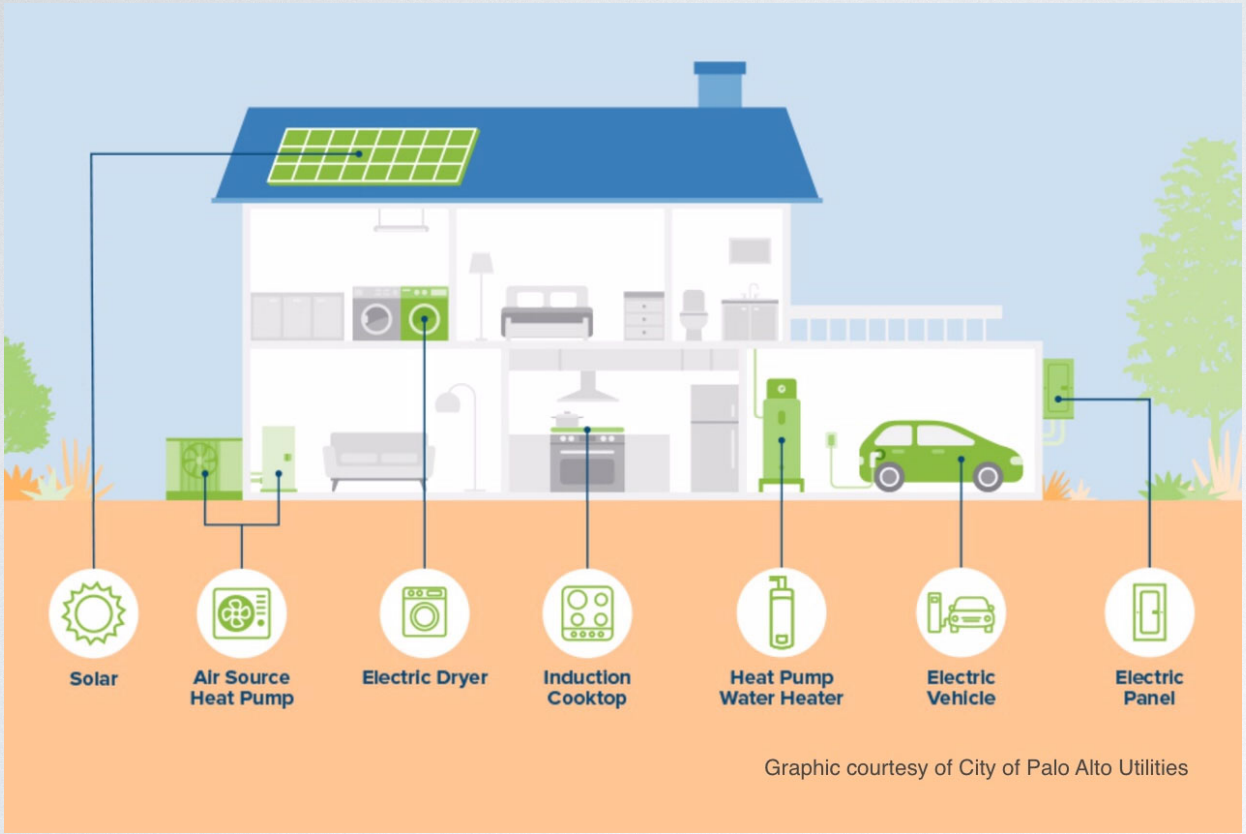
REQUIRING A PERCENTAGE OF EV CHARGING SPACES AT EXISTING MULTIFAMILY PROPERTIES

- Require a certain percentage of EV charging at existing multifamily properties by a certain date
- Time of sale requirement
- Altering the city's existing thresholds for requiring EV charging for additions/alterations to apply to multifamily and explore lower square footage thresholds.
- Developing a policy that exceeds the state's requirements regarding tenants' rights to install EV charging



MULTI FAMILY SURVEY

- Here are some survey results on EV charging in multifamily: https://cleantechnica.com/2021/02/18/your-survey-responses-on-ev-charging-at-apartment-complexes/

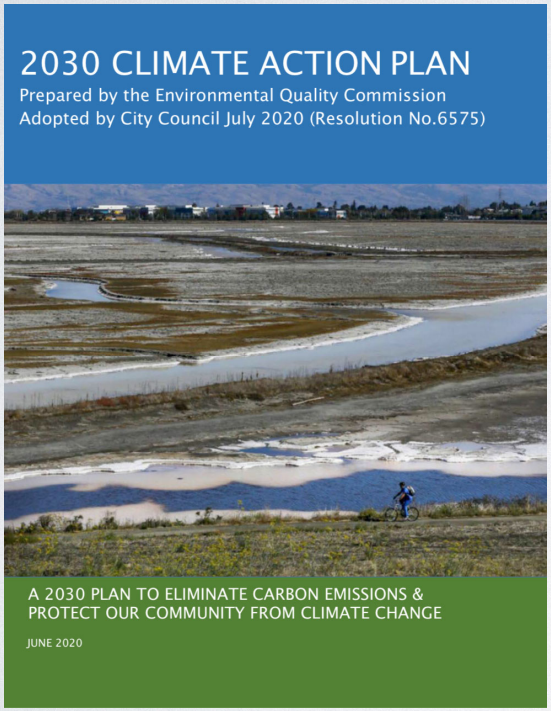


Affordability of Building Electrification

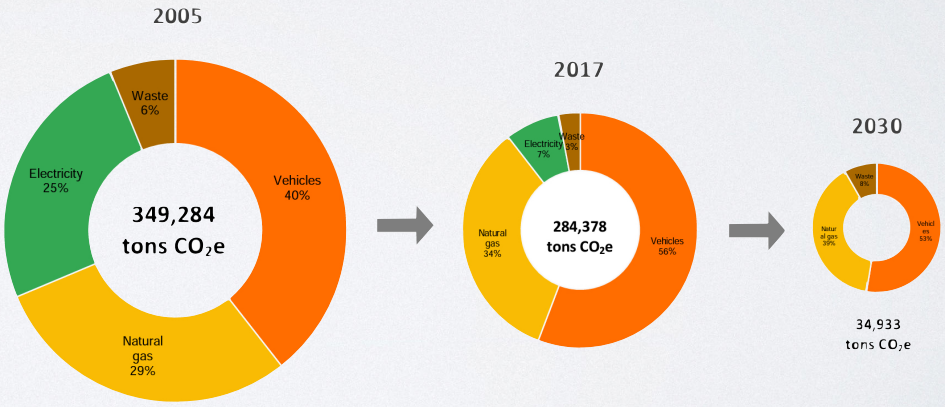
March 17, 2021

Presentation by Commissioners Gaillard and Kabat

CLIMATE ACTION PLAN



- Adopted by Menlo Park City Council in July 2020
- Sets a goal of 90% reduction in GHG by 2030 and elimination of the remaining 10% through direct carbon removal



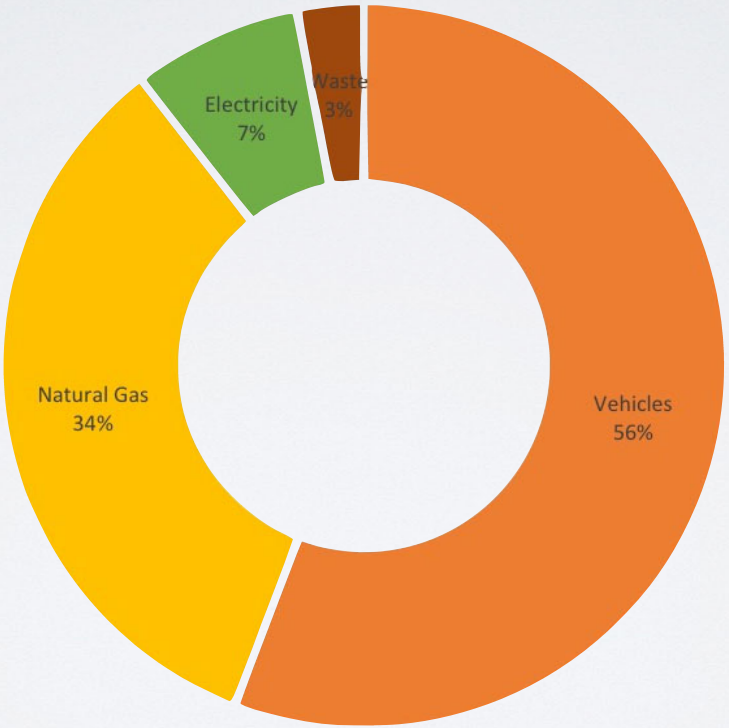
MENLO PARK CAP 2020-21

#	Action	2030 GHG Reduction (tons/yr)
1	Explore policy/program options to convert 95% of existing buildings to all-electric by 2030	1) 86,465 OR 2) 51,636
2	Set citywide goals for increasing EVs and decreasing gasoline sales	7,120
3	Expand access to EV charging	7,370
4	Reduce vehicle miles traveled (VMT) by 25% or an amount recommended by the Complete Streets Commission	31,743
5	Eliminate the use of fossil fuels from municipal operations	879
6	Develop a climate adaptation plan to protect the community from sea level rise and flooding	0
		98,748

TYPICAL GHG EMISSIONS PROFILE

for cities in San Mateo County

Building electrification eliminates these emissions



Building electrification assists in eliminating these emissions

Source: City of Menlo Park December 2019 Staff CAP report

ELEMENTS OF ELECTRIFICATION POLICY

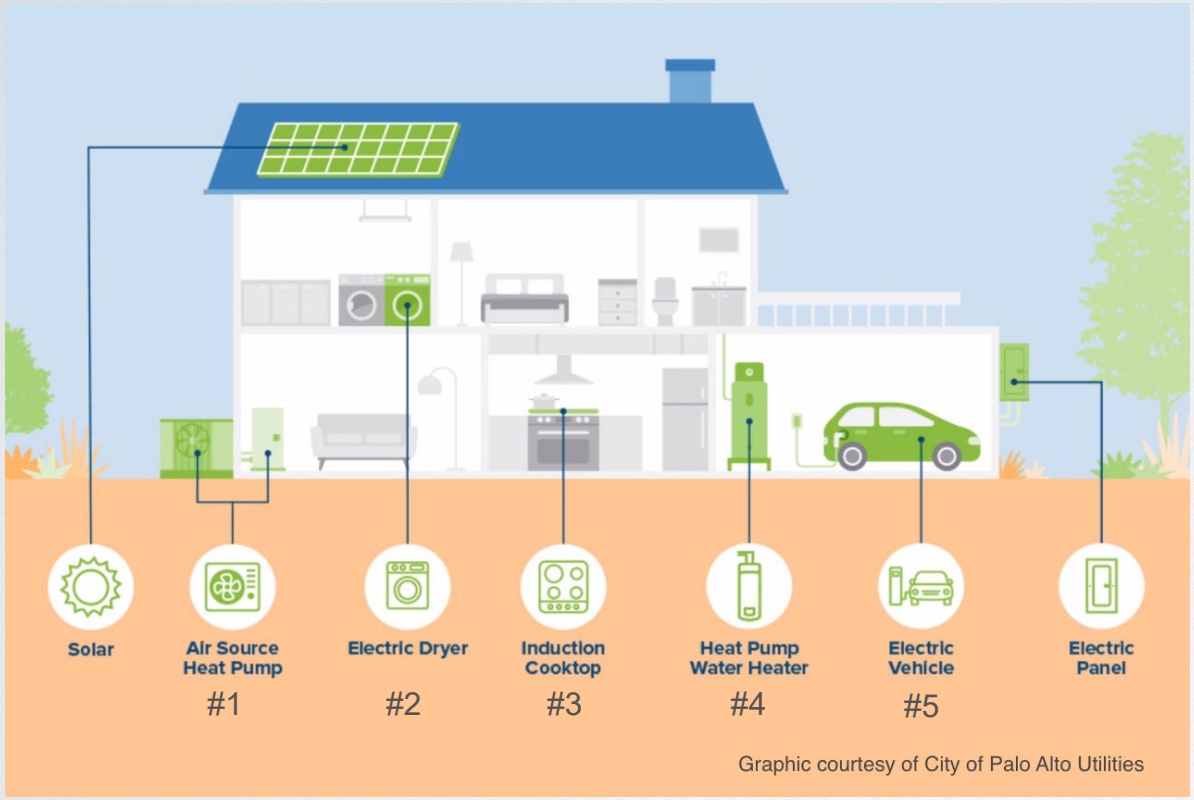
- Legal
- Technical
- Market development
- Enforceability
- **Affordability**

AFFORDABILITY OF ELECTRIFICATION

Basic questions:

1. What does it cost to fully electrify an existing single-family home in San Mateo County?
2. Can we make the transition costs affordable enough to pass city ordinances?
3. What levers do policy makers and utilities have to achieve affordability?
4. What pieces of the puzzle need to be put in place?
5. What partnerships are needed?
6. What can we learn from development of rooftop solar installation or other industries?

WHAT IS BUILDING ELECTRIFICATION?



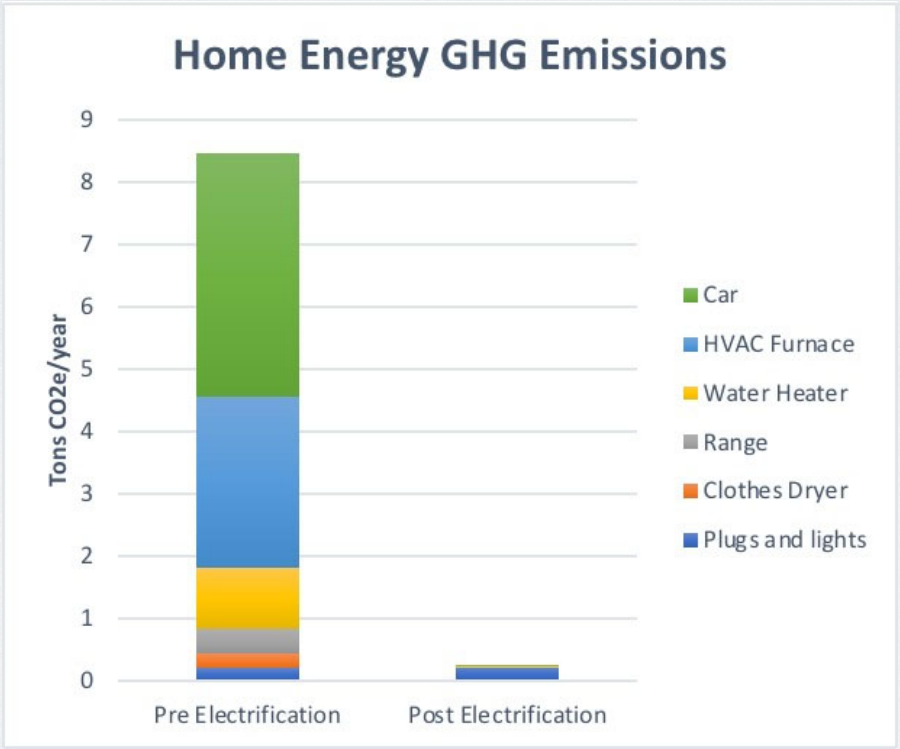
Replacing all fossil fuel appliances in the building:

#1 gas furnace
#2 gas dryer
#3 gas range
#4 gas water heater
#5 gasoline for car

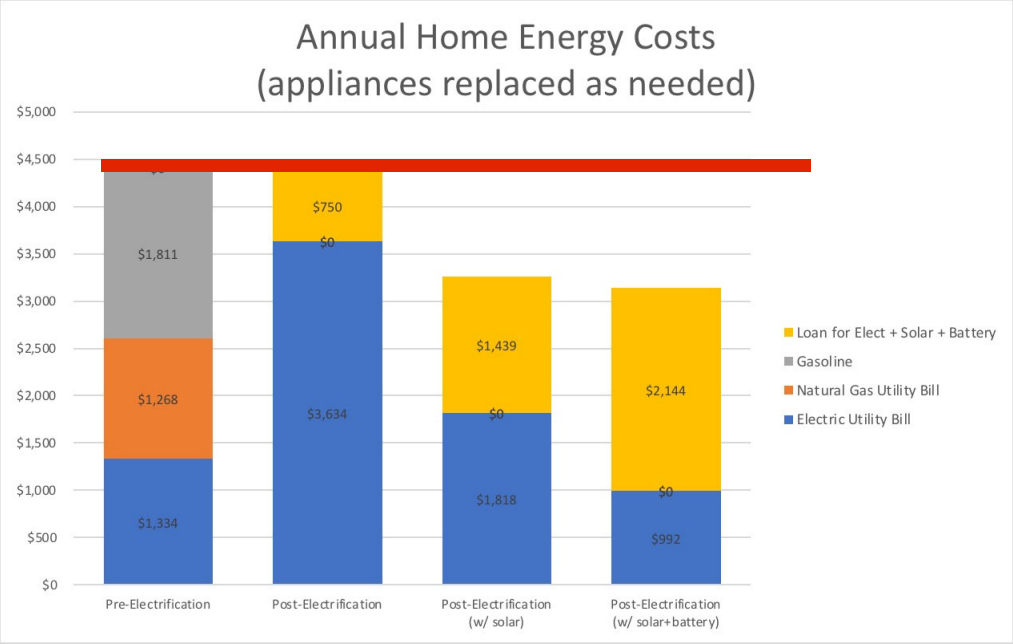
...with high efficiency electric alternatives

- Rooftop solar (at $0.05–0.10 per kWh) makes all-electric home conversions affordable
- Battery backup systems make all-electric homes reliable during grid outages

ELECTRIFICATION NEARLY ELIMINATES BUILDING GHG EMISSIONS



WHAT DOES IT COST TO ELECTRIFY?



Annual Home Energy Costs	Pre-Electrification	Post-Electrification	Post-Electrification (w/ solar)	Post-Electrification (w/ solar +battery)
Electric Utility Bill	$1,334	$3,634	$1,818	$992
Natural Gas Utility Bill	$1,268	$0	$0	$0
Gasoline	$1,811	$0	$0	$0
Loan for Elect + Solar + Battery	$0	$750	$1,439	$2,144
Total	**$4,414**	**$4,384**	**$3,257**	**$3,137**

SCENARIO BUILDING ASSUMPTIONS

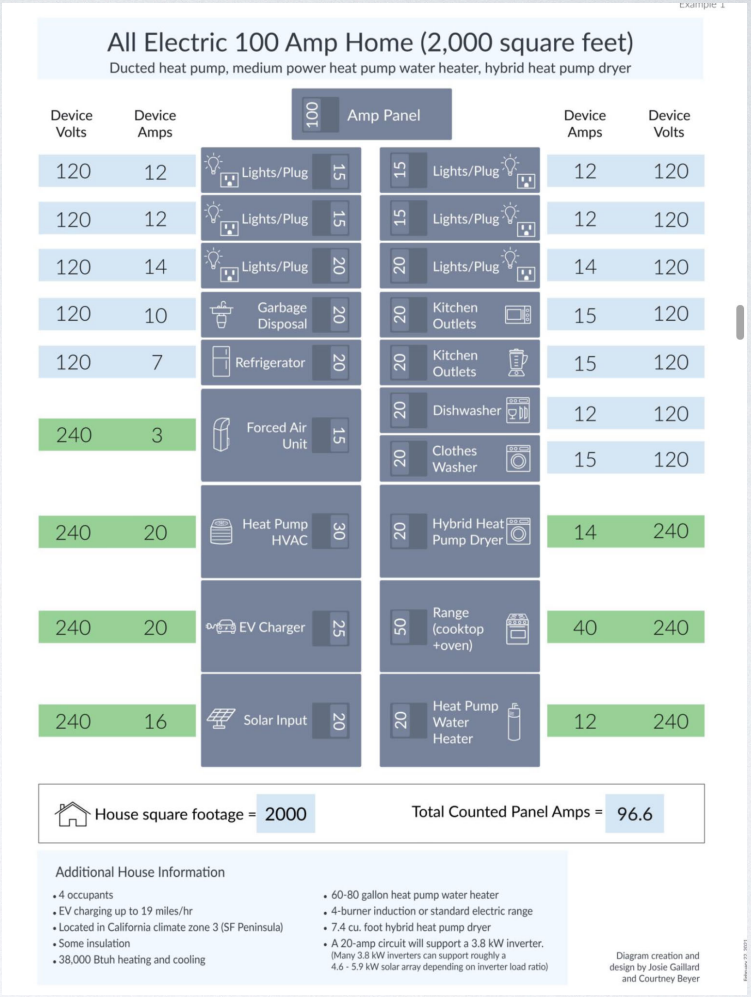
- Typical single family home in Menlo Park, California
- Built mid-century with some energy efficiency upgrades (attic insulation and duct insulation) but no major remodel
- 1,500 sq feet
- 100 amp electrical service
- Home owner has good credit

SCENARIO APPLIANCE ASSUMPTIONS

	Starting State	End State
Water heating	gas water heater	heat pump water heater
Space heating	gas furnace	heat pump HVAC
Clothes drying	gas dryer	hybrid heat pump dryer
Cooking	gas range	induction range
Vehicle fuel	gasoline	electricity (via home EV charger)
Solar	0 kW	5.8 kW
Stationary battery	0 kWh	13.5 kWh
Electric service	100 amps	100 amps

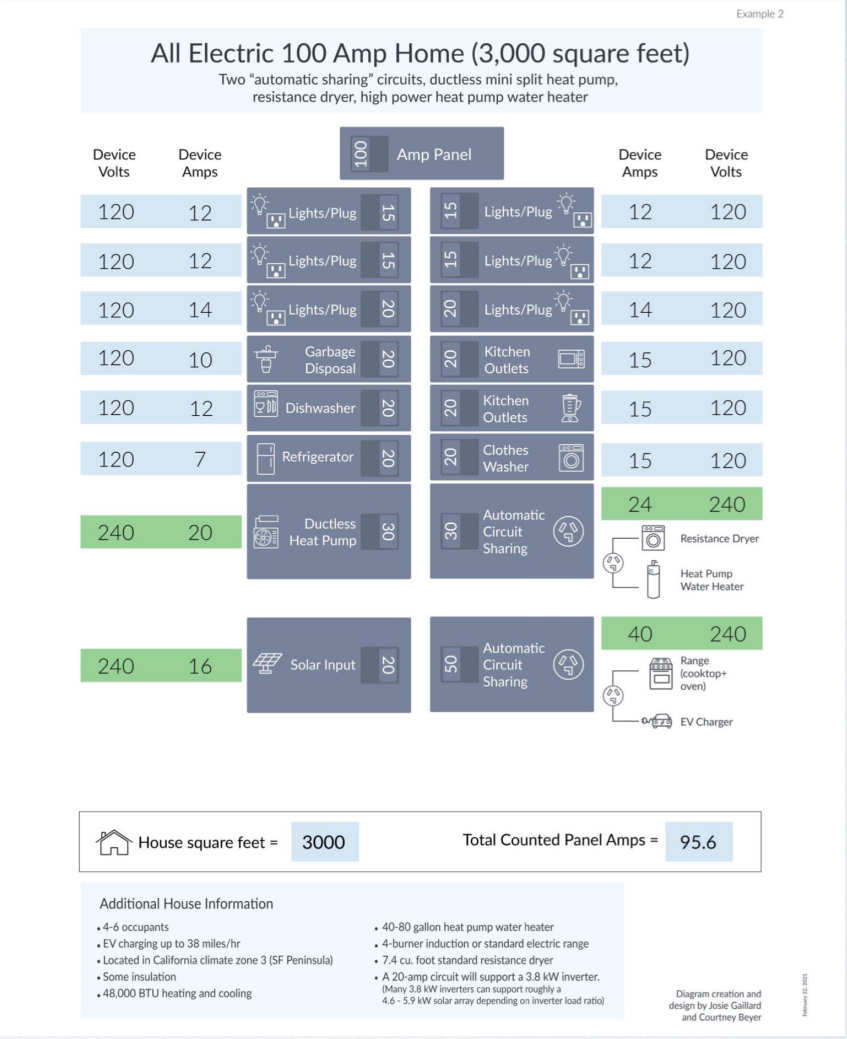
TOM KABAT'S "AMP DIET" for **2,000** sq ft home

- For homes with 100 amp electrical panels
- Helps avoid ~$3,000 electric panel upgrade
- Favors efficient devices w/ low rated amps
- Provides roadmap for building owner
- Helps guide tradespeople



TOM KABAT'S "AMP DIET" for **3,000** sq ft home

- For homes with 100 amp electrical panels
- Uses "circuit sharing" devices like plug-in smart splitter *Neocharge* or hard-wired version *SimpleSwitch*
- Still easy to avoid ~$3,000 electric panel upgrade



A HOW TO GUIDE FOR ELECTRIFICATION

- Just released by Redwood Energy and Menlo Spark
- Electrification solutions for existing buildings
- Product lists
- Case studies from across the country
- Amp diet info
- Cost examples

- Go to: https://drive.google.com/file/d/1zU0v6DXqFkSYI-7Nw5TJu8M_2yf11z5P/view?usp=drivesdk

APPLIANCE INSTALLATION COST ASSUMPTIONS

	Capital Costs - Electrification												
	Electric Equipment Installation								Equivalent Gas Equipment Installation				
New Electrific Equipment	**Included in Project?**	**Equip Cost**	**Labor Cost**	**Wiring Cost**	**Permit Cost (Fee + Labor)**	**Installed Cost Before Incentives**	**Incentives**	**Total Cost Electric**	**Equip Cost**	**Labor Cost**	**Permit Cost**	**Total Cost Gas**	**Premium: Electric v. Gas**
Electric service upgrade	no	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New electric subpanel	no	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heat pump water heater	yes	$1,300	$1,200	$400	$500	$3,400	($2,500)	$900	$600	$400	$400	$1,400	($500)
Heat pump HVAC	yes	$5,000	$4,000	$550	$1,000	$10,550	$0	$10,550	$3,000	$2,000	$500	$5,500	$5,050
Hybrid Dryer	yes	$1,500	$0	$300	$0	$1,800	$0	$1,800	$700	$100	$0	$800	$1,000
Induction Range	yes	$3,000	$0	$600	$0	$3,600	$0	$3,600	$1,200	$100	$0	$1,300	$2,300
EV charger	yes	$500	$0	$600	$400	$1,500	$0	$1,500	$0	$0	$0	$0	$1,500
TOTAL		**$11,300**	**$5,200**	**$2,450**	**$1,900**	**$20,850**	**($2,500)**	**$18,350**	**$5,500**	**$2,600**	**$900**	**$9,000**	**$9,350**

ROOFTOP SOLAR ECONOMICS

Solar System Size	5.8	kW
Solar System Price*	$2.00	per watt
Total Price of Solar System	$11,600	
Federal Tax Credit - 26%	$3,016	
Solar System Cost After Tax Credit	**$8,584**	
Average Full Sun Equiv	1,600	hours per
Average Daily Insolation	4.38	hours per day
Daily Solar Array Output	25	kWh per day
Annual Solar Array Output	9,280	kWh per year
Solar System Life	25	years
Derating Factor due to Aging	20%	
Derating Factor from Size Clipping	10%	
Derated Annual Solar Array Output	**6,682**	kWh per year
Solar Electricity Cost (ex. loan)	**$0.05**	per kWh
Annual Loan Payment on System**	**$689**	
Solar Electricity Cost (inc. loan)	**$0.10**	per kWh
Avoided PG&E Electricity Cost	**$1,604**	
Annual Savings from Solar	**$915**	

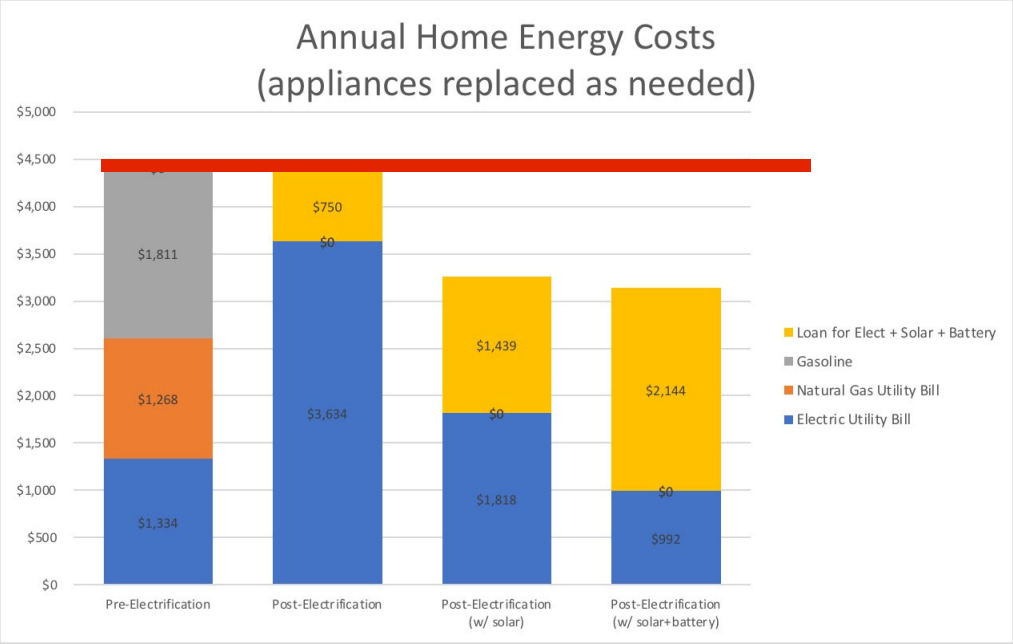
* Note: $2.00 per watt installed price taken from Tesla's website

** Assumes 5% interest rate and 20 yr term

FINANCE AND OTHER KEY ASSUMPTIONS

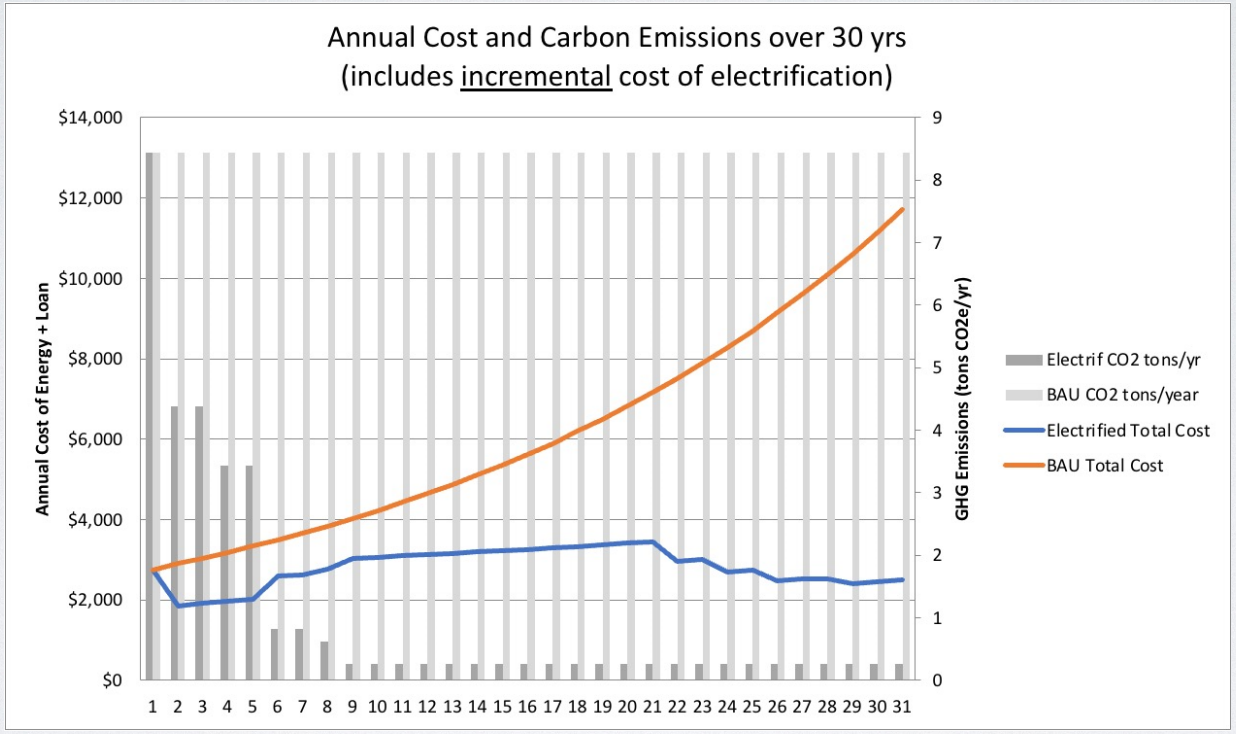
- Loan term: 20 years
- Loan interest rate: 5% fixed
- Electrification costs reflect actual prices/quotes
- Rooftop solar installation cost = $2.00/watt
- Stationary battery installation cost = $880/kWh
- Battery capacity reserved for outages = 35%
- Federal tax credit = 26%
- CCE subsidy = $2,500 for HP water heater
- End state electric rate: PG&E EV2-A
- Natural gas rates increase by 57% (average) over 20-year term of loan
- 12,000 vehicle miles per year
- 120 degree F target temp for water heater
- 5 laundry loads per week
- 14.5 range “burner hours” per week

WHAT DOES IT COST TO ELECTRIFY?



Annual Home Energy Costs	Pre-Electrification	Post-Electrification	Post-Electrification (w/ solar)	Post-Electrification (w/ solar +battery)
Electric Utility Bill	$1,334	$3,634	$1,818	$992
Natural Gas Utility Bill	$1,268	$0	$0	$0
Gasoline	$1,811	$0	$0	$0
Loan for Elect + Solar + Battery	$0	$750	$1,439	$2,144
Total	**$4,414**	**$4,384**	**$3,257**	**$3,137**

HOME BUDGET IMPACT OF NOT ELECTRIFYING



KEY FINDINGS

- **Electrification is <u>cost neutral from day one</u> to the end customer if:**
  - Financed
  - Paired with roof-top solar
  - Installation costs are competitive
  - Amount financed is “premium” for electrification over gas appliances
- Tom Kabat’s “amp diet” concept is key to avoiding $3,000+ electrical service upgrade
- Capital costs for electric appliances are currently higher than equivalent gas appliances
- Operating savings do not fully make up for higher capital cost without solar
- Solar is so inexpensive that it floats the economics of electrification
- Adding a battery pays for itself due to “duck-head” savings on PG&E’s EV2-A rate

WHAT CAN WE LEARN FROM ROOFTOP SOLAR?

- Installation costs will come down with volume
- Installer training is key to quality and cost
- Streamlining permits is key to reducing costs
- Stepping down subsidies by volume (vs. time) creates prompt demand, injects urgency and imposes discipline on installer market
- Financing will move electrification from something only wealthy people can afford to something most people can afford

KEY LEVERS FOR POLICY MAKERS AND UTILITIES

#		Who
1	Low interest financing	private sector, PCE, County?
2	On-bill financing	PG&E, PCE
3	Extra support for low-income households	?
4	Equipment rebates	PCE
5	Installer training	PCE, County
6	Public education	PCE, County, Cities
7	Permit streamlining	Cities, County, State
8	Favorable electricity rates	PCE, PG&E, CPUC
9	City ordinances	Cities

WHAT ELSE DO WE NEED?

- Low-interest financing solutions
- Financing solutions for customers with poor credit
- On-bill utility financing
- Education on using “amp diets” to avoid panel upgrades
- More developed and competitive installer market

MYTHS

- Heat pumps don’t work well in the cold
- My house will be cold if I electrify
- Everyone will need an expensive electrical panel upgrade to electrify
- Electrifying is only affordable for the wealthy
- Electrifying puts me at increased risk during power outages

POTENTIAL POLICY PUSHBACK

- [x] Cost too high
- [x] Resiliency risk
- [x] Why us? We are just a drop in the bucket
- [ ] Too much effort required - don’t want to change

Research and Modeling:

Josie Gaillard
josie_gaillard@me.com

Tom Kabat
tomgkabat@gmail.com

APPENDIX

LOAD ANALYSIS