



DATE: May 11, 2020

AGENDA ITEM #2

**TO:** Environmental Commission  
**FROM:** Emiko Ancheta, Staff Liaison  
**SUBJECT:** Reach Code Webinar Review

**RECOMMENDATION:**

Review and discuss the Reach Code webinar and feedback from community.

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**BACKGROUND**

On Wednesday, April 29, 2020 the City of Los Altos and the Environmental Commission Subcommittee held a community educational webinar on the Reach Codes. The public received information from Silicon Valley Clean Energy and the Environmental Commission about Reach Codes and the proposed draft ordinance.

**DISCUSSION**

1. Review and discuss results of the webinar and feedback

**ATTACHMENT:**

- A. Reach Code Webinar Power Point Presentation
- B. Reach Code Webinar Survey Results
- C. Feedback and comments from public on Reach Codes
- D. Work Plan

# Community Webinar

**Reach Codes:  
Building Electrification &  
Electric Vehicle Charging  
Infrastructure**

**April 29, 2020**

**7:00 PM**



# OVERVIEW

- ▶ **Platform:** Attendees with questions can enter them in the comment section at the bottom of the screen
- ▶ **Access:** Webinar presentation will be emailed to those that registered for the webinar and will be posted on the City of Los Altos website
- ▶ **Method:** To provide feedback, comments and or questions after the presentation, please email: [eancheta@losaltosca.gov](mailto:eancheta@losaltosca.gov)



City of Los Altos

# AGENDA

7:00 pm	Overview, Introductions and Timeline	City of Los Altos Staff
7:10 pm	SVCE Overview, Energy and Reach Codes and Developed Model	SVCE
7:20 pm	Background Code Adoption and Draft Ordinance Details	Environmental Commission Subcommittee
7:30 pm	Q & A	
8:00 pm	Closing	



City of Los Altos

# INTRODUCTIONS

## ❖ City of Los Altos Staff:

Kirk Ballard - *Building Official*

Calandra Niday - *Assistant Planner*

Anthony Carnesecca - *Economic Development Coordinator*

Trevor Marsden - *Management Analyst Fellow*

Emiko Ancheta - *Sustainability Coordinator*

## ❖ Silicon Valley Clean Energy:

John Supp - *Account Services Manager*

## ❖ Environmental Commission Subcommittee:

Laura Tekslar - *Chair of Subcommittee*

Don Weiden - *Chair of Environmental Commission*

Lei Yuan - *Vice Chair of Environmental Commission*



City of Los Altos

# REACH CODES

## What?

Local building energy codes that “reach” beyond the state minimum requirements for higher energy efficiency in building design and construction.

## Why?

Building electrification and increased EV charging infrastructure is one key way to decrease Greenhouse Gas emissions which is a goal of the City’s Climate Action Plan.

## When?

Currently under consideration for 2020 (continue to check the City website for updates).



City of Los Altos

# Timeline for Ordinance Adoption

- Revise the draft ordinance
- 1st Reading of revised draft ordinance by Council
- 2<sup>nd</sup> Reading of ordinance by Council
- California Energy Commission (CEC) Review ~30-90 days
- Ordinance Implemented



City of Los Altos



# Reach Codes Buildings and EV Charging

**April 2020**

# Purpose

SVCE role

Building codes – energy and EVs

Why make local amendments

# Silicon Valley Clean Energy

Owned and Operated  
by Thirteen Local Communities

Jeannie Bruins  
City of Los Altos

Margaret Abe-Koga  
Chair  
City of Mountain View

Courtenay Corrigan  
Town of Los Altos Hills

Howard Miller  
Vice Chair  
City of Saratoga

Bob Nuñez  
City of Milpitas

Liz Gibbons  
City of Campbell

Javed Ellahie  
City of Monte Sereno

Rod Sinks  
City of Cupertino

Yvonne Martinez Beltran  
City of Morgan Hill

Marico Sayoc  
Town of Los Gatos

Nancy Smith  
City of Sunnyvale

Fred M. Tovar  
City of Gilroy

Susan Ellenberg  
Santa Clara County

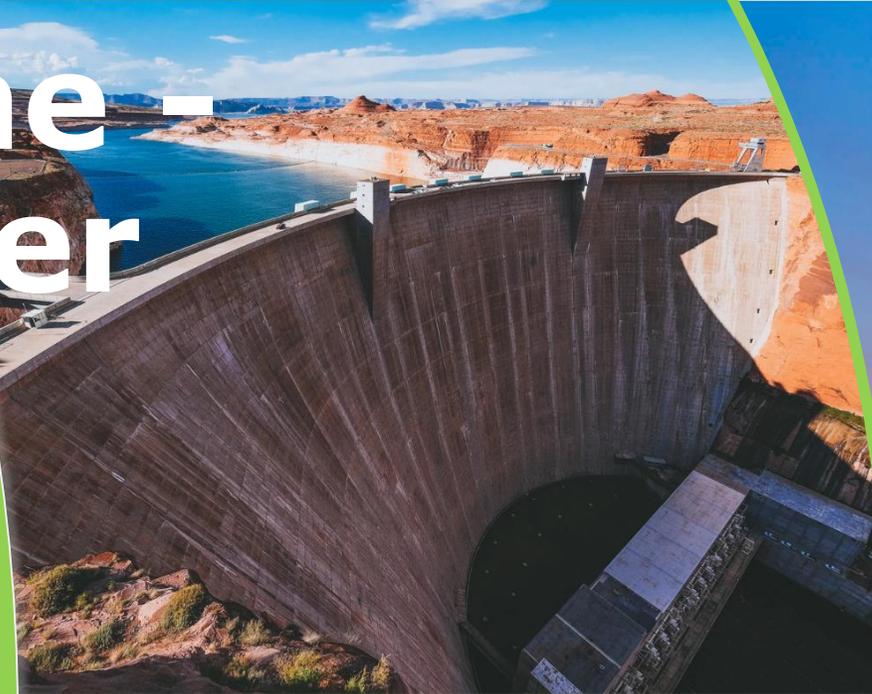


# SVCE

- Mission 1 – source carbon-free power
  - ✓ Sourcing from geothermal, hydro, wind, and solar
  - ✓ Adding new wind and solar + battery storage power plants
- Mission 2 – provide it in a cost-effective fashion
  - ✓ Our communities have **saved over \$50 million** on their utility bills
- Mission 3 – invest locally to support environmental and economic goals
  - ✓ \$600k for heat pump water heaters via Air District and SVCE matching funds
  - ✓ \$12 million for EV charging via CALeVIP and SVCE matching funds
  - ✓ RFP issued for battery storage for residential and commercial customers

# Mission One - Clean Power

Wind  
Hydro  
Solar  
Geothermal  
Storage



# Mission Two - SVCE Rates

According to PG&E's website, SVCE service saves residential customers about \$0.02 per kilowatt hour, averaging about a \$10 per month saving.

E-1 \*

	PG&E		SVCE	
Residential: E-1	PG&E	PGE Solarchoice (100% Renewable)	GreenStart (50% Renewable)	GreenPrime (100% Renewable)
Generation Rate (\$/kWh)	\$0.11778	\$0.09436	\$0.06732	\$0.07532
PG&E Delivery Rate (\$/kWh)	\$0.15013	\$0.15013	\$0.15013	\$0.15013
PG&E PCIA/FF (\$/kWh)	N/A	\$0.02979	\$0.03045	\$0.03045
Total Electricity Cost (\$/kWh)	\$0.26791	\$0.27428	\$0.24790	\$0.25590
Average Monthly Bill (\$)	\$119.83	\$122.67	\$110.88	\$114.45

Monthly usage: 447 kWh

[www.PGE.com/pge\\_global/common/pdfs/customer-service/other-services/alternative-energy-providers/community-choice-aggregation/svce\\_rateclasscomparison.pdf](http://www.PGE.com/pge_global/common/pdfs/customer-service/other-services/alternative-energy-providers/community-choice-aggregation/svce_rateclasscomparison.pdf)

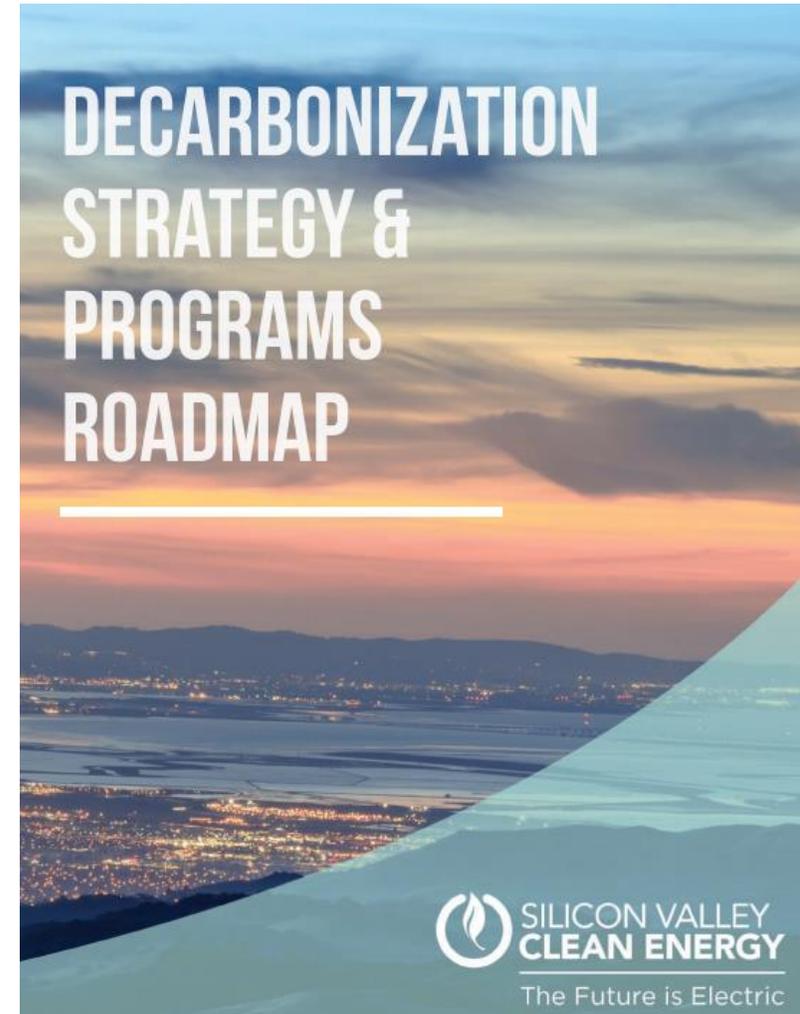
# Mission Three – Local Investment

Includes over \$10M in local investments

- EV charging
- Appliances
- Battery Storage (with solar)
- ....
- **Contract Technical Consultant for Building and EV Codes**

Program plan developed in collaboration with city staff, local and regional stakeholders and approved by SVCE Board in December 2018.

<https://www.svcleanenergy.org/programs/>



# Building Code

All buildings must meet state-provided code.

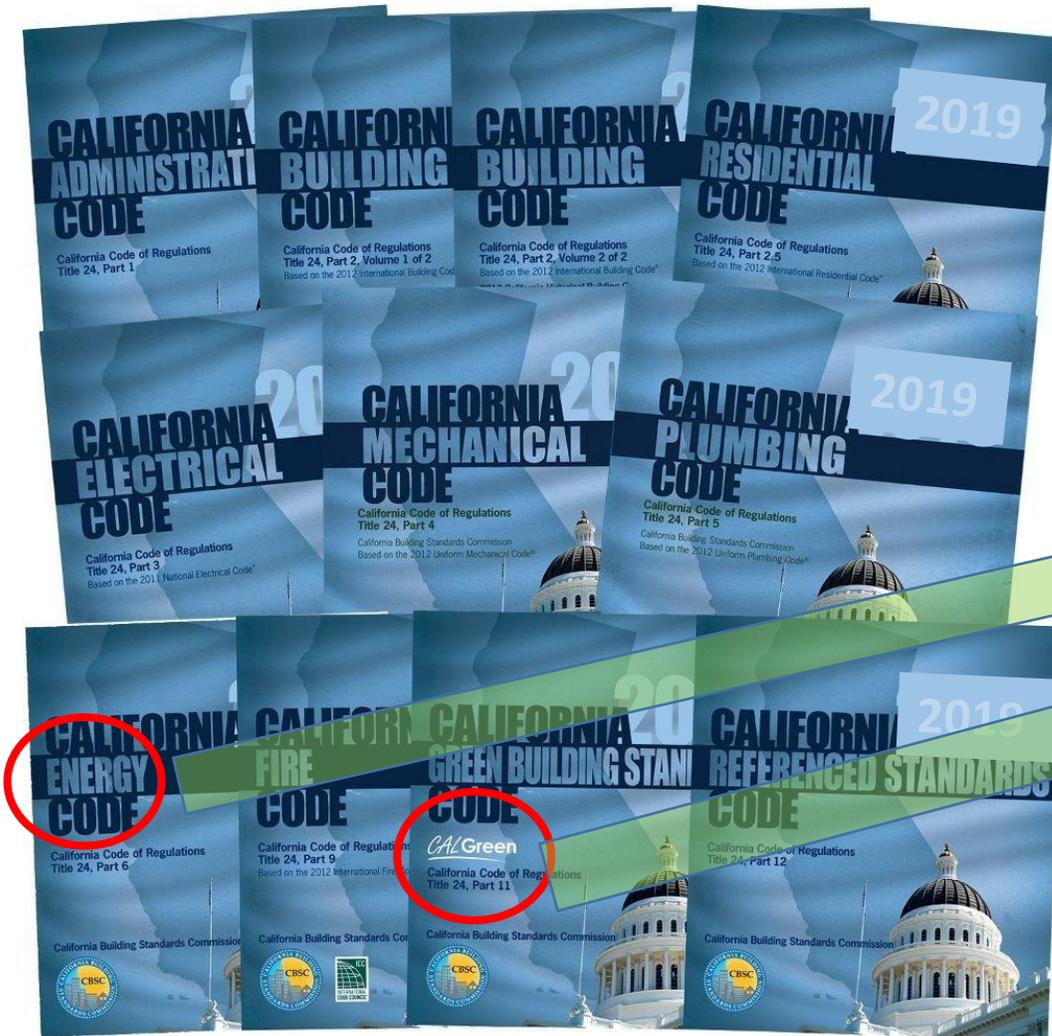
Codes change every 3 years.

When a city adopts a reach code, that becomes the new code for that city.

That building energy reach code must meet state required cost-effectiveness standards.

# Building Codes

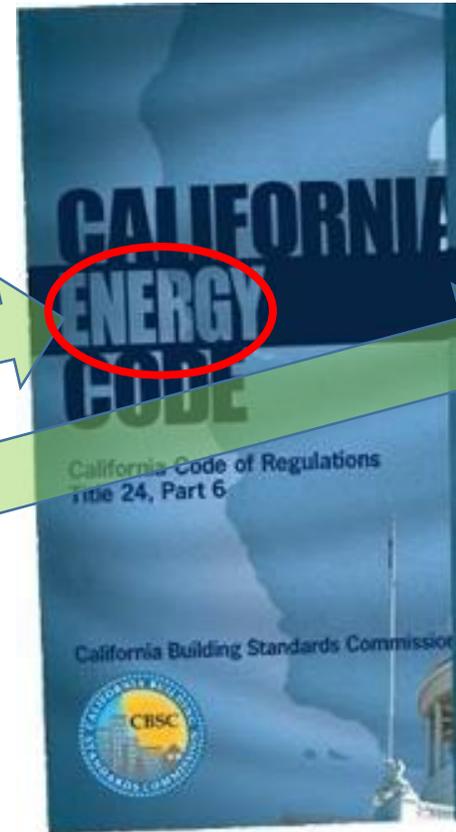
All 11 sections must be adopted every three years



Reach Code  
(amend some sections within these two parts only)

Energy  
Part 6

CALGreen  
Part 11



# Why Pro-Electric Reach Codes

New all-electric construction saves money

- Lower cost to construct
- Similar/lower cost to operate
- Better air quality
- Safer

Installing EV charging once a building is built costs 2-5 times more than during construction.

# Cost-Effectiveness

Building Energy Reach Codes must meet California Energy Commission's (CEC) Cost-Effectiveness test.

Additional cost-effectiveness metrics analyzed.

Outcomes for All-electric buildings:

- Cost less to construct

- More energy efficient

- Utility costs similar to or less than mixed fuel versions

- Lower overall lifetime costs



# Cost-Effectiveness

**Table 53: Single Family Climate Zone 4 Results Summary**

Climate Zone 4 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin <sup>4</sup>	PV Size Change (kW) <sup>5</sup>	CO <sub>2</sub> -Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel <sup>1</sup>	Code Compliant	0	347	n/a	n/a	1.88	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	306	2.5	(0.03)	1.68	0.20	\$1,556	0.93	1.15
	Efficiency-Equipment	(0)	294	2.5	(0.02)	1.62	0.26	\$758	2.39	2.67
	Efficiency & PV/Battery	(18)	306	10.0	0.07	1.55	0.33	\$5,434	0.30	1.48
All-Electric <sup>2</sup>	Code Compliant	4,342	0	n/a	n/a	1.00	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,775	0	3.0	0.00	0.89	0.11	\$1,519	1.92	1.84
	Efficiency-Equipment	3,747	0	3.5	0.00	0.88	0.12	\$2,108	1.52	1.52
	Efficiency & PV	814	0	17.0	1.84	0.48	0.52	\$8,786	2.13	1.62
	Efficiency & PV/Battery	(11)	0	28.5	2.44	0.25	0.75	\$14,664	1.46	1.61
Mixed Fuel to All-Electric <sup>3</sup>	Code Compliant	4,342	0	0.0	0.00	1.00	0.88	(\$5,349)	0.55	1.59
	Efficiency & PV	814	0	17.0	1.84	0.48	1.40	\$3,438	2.64	>1
	Neutral Cost	2,166	0	10.0	1.35	0.70	1.18	\$0	>1	>1

With equal construction costs (“Neutral Cost”),

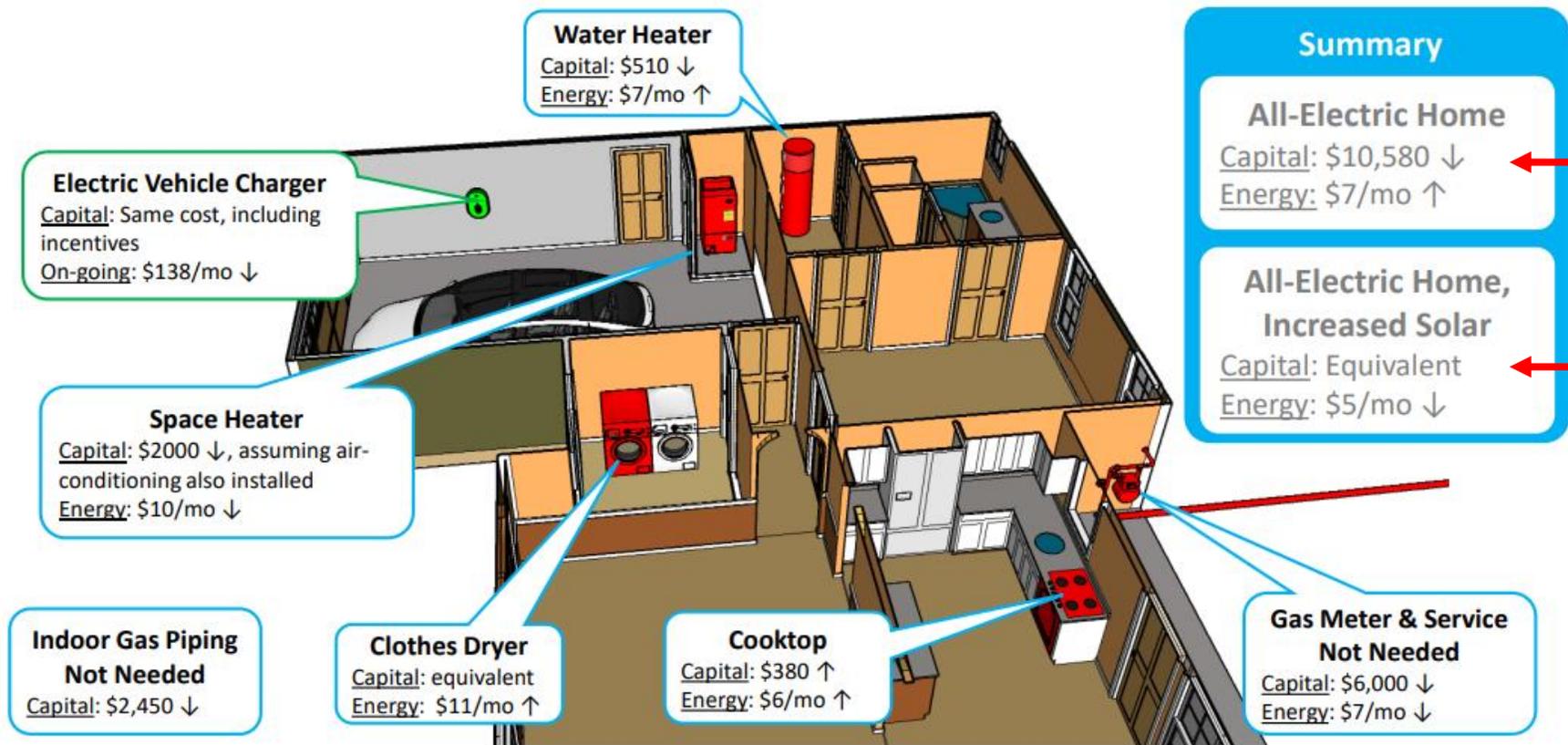
All-electric is...

More energy efficient (TDV benefit >1)

and

lower utility bills (On-Bill benefit >1).

# Electrifying New Single Family Homes in the Bay Area – The Cost Story



All-electric provides flexibility During construction

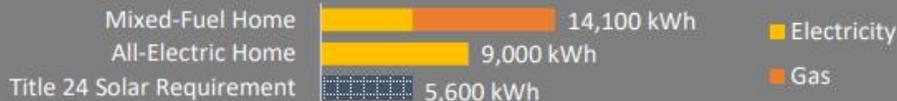
1) Lower cost to build, slightly higher monthly utility bill

2) Same cost to build, slightly Lower monthly utility bill

## Capital Cost of Thermal Systems



## Annual Energy Use & Generation



**\$191 Net Lifecycle Cost Savings** per year for an all-electric home versus the mixed-fuel equivalent

**3 MT CO<sub>2</sub>e Carbon Emissions Savings** per home, per year based on 2030 grid mix

Capital and energy costs of thermal systems are based on Residential Building Electrification in California by E3 (April 2019); electricity costs specific to PCE/SVCE territory. All-Electric Home, Increased Solar bill impacts are based on Low-Rise Residential New Construction 2019 Cost Effectiveness Study by Frontier Energy (August 2019).  
Version 8 10/21/2019



# Local Activity

9 communities have adopted.

3 communities considering.  
Status reflects current discussions and is not binding.

Member Agency	Status	Next Meeting	Date of Next Meeting	Code Language	Building Reach			EV Reach
					Encourage Electric (1 + 2 + 2A)	Mostly Electric (1 + 2A)	100% Electric (1 only)	Higher than CalGREEN
Mountain View		Approved		<a href="#">Begins on pg. 23</a>			X	X
Morgan Hill		Approved		<a href="#">Begins on pg. 45</a>			X	
Milpitas		Approved		<a href="#">Begins on pg. 1132</a>	X			X
Monte Sereno		Approved		<a href="#">Begins on pg. 3</a>	X <sup>1</sup>			X
Saratoga		Approved		<a href="#">Begins on pg. 33</a>		X		X
Los Gatos		Approved		<a href="#">Begins on pg. 93</a>			X	X
Cupertino		Approved		<a href="#">Ordinance</a>			X	X
Los Altos Hills		Approved		<a href="#">Ordinance</a>		X		X
Campbell		Approved		<a href="#">Begins on pg. 41</a>		X		
Los Altos		1st Reading					X	
Santa Clara County		Staff Proposal			X			
Sunnyvale		Staff Proposal				X		
Gilroy	-	Declined						

# Los Altos Environmental Commission

## History of Commission Efforts

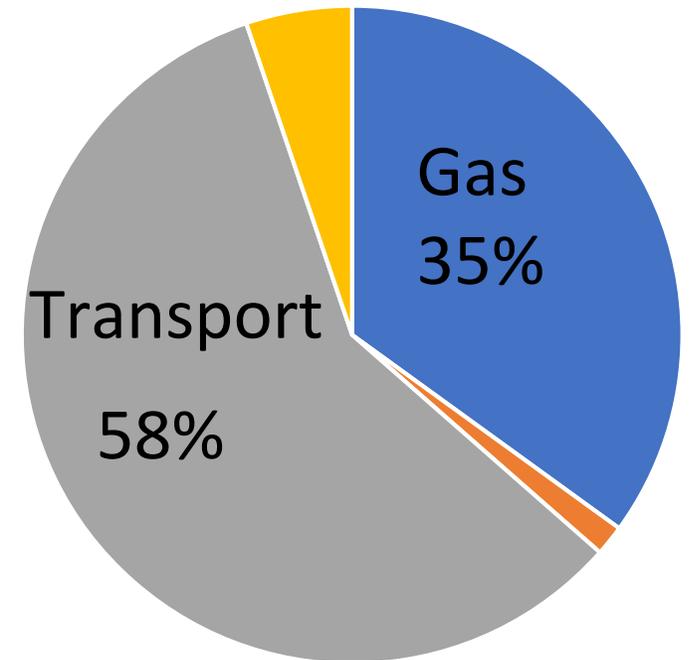
- Commission began investigating Green Building measures to achieve Climate Action Plan Goals in 2017
  - Addresses focus areas outlined in City's Climate Action Plan for Greenhouse Gas (GHG) Emissions Reductions
  - Reported to Council but difficult to implement as stand-alone municipality
- Regional Reach Codes Effort Spearheaded by SVCE & PCE
  - Provides regional approach and resources to help cities adopt
  - EC Presented Recommended Adoption to Council November 19, 2019

# Los Altos Environmental Commission

## Why Did Commission Recommended Adoption?

Will Help Reduce Gas and Transportation emissions – two largest sources of GHG emissions in City

2018 Total GHG Emissions



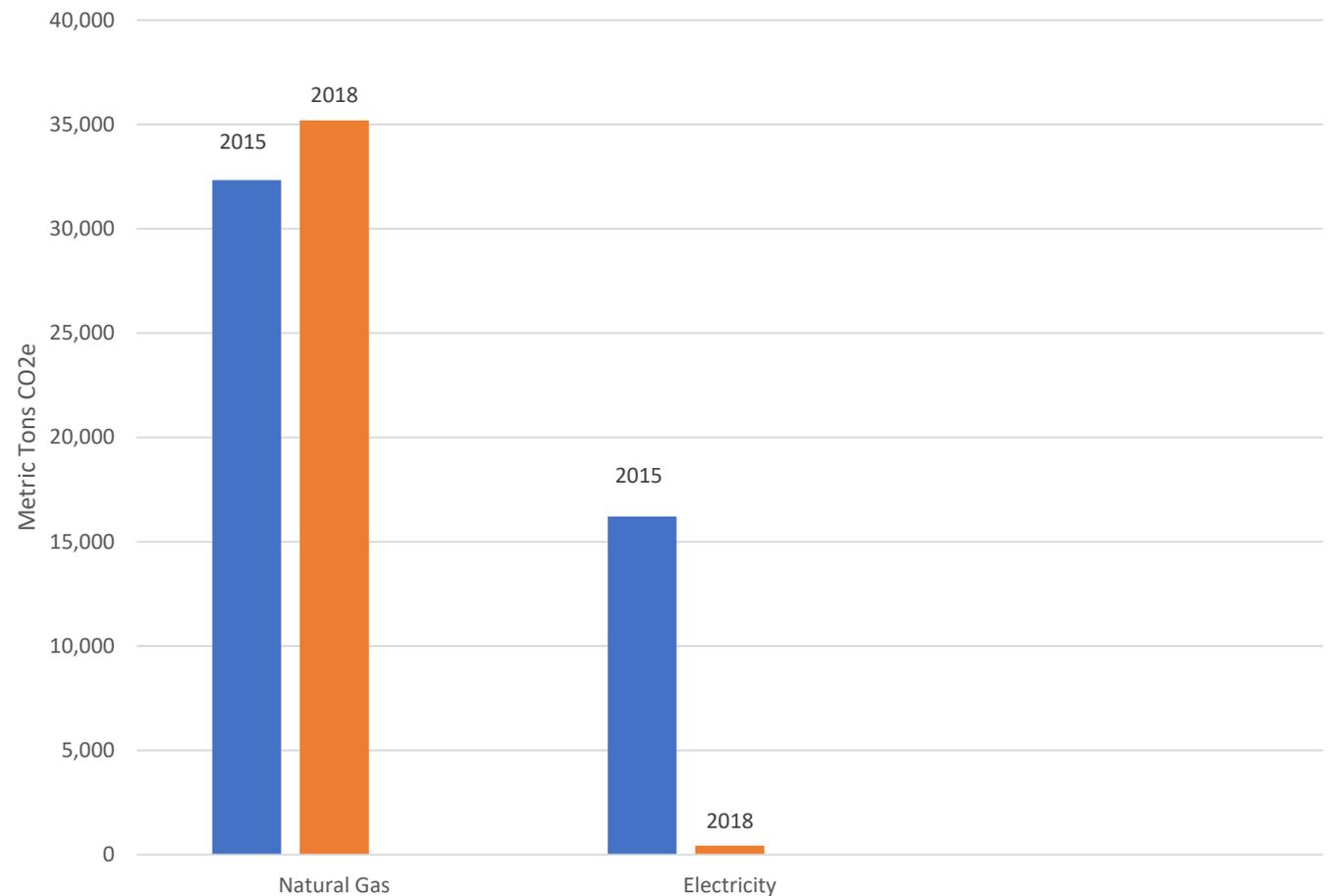
- Gas
- Electricity
- Transportation
- Other (emissions from waste, water)

# Los Altos Environmental Commission

## Why Eliminate Natural Gas?

Between 2015 & 2018 GHG emissions from Natural Gas have continued to grow while GHG emissions from electricity have decreased dramatically

GHG Emission from Residential Natural Gas & Electricity



# Los Altos Environmental Commission

## **How do Electric Appliances Perform?**

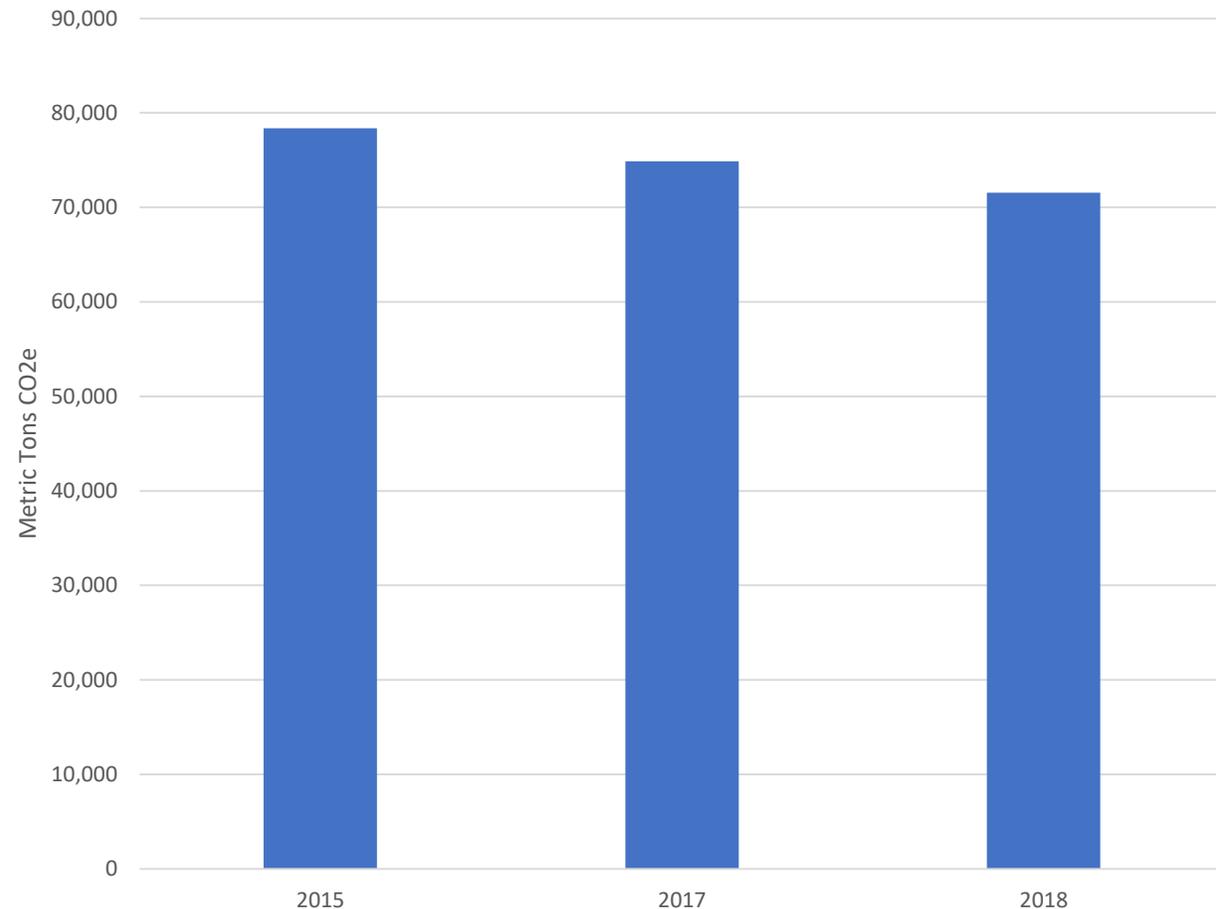
- Heat pump water and space heaters perform well and are generally more efficient than gas
- Induction stoves are reported to perform very well as are new electric stoves
- All-electric homes are common in other parts of the country, accounting for one in four homes in the U.S.

# Los Altos Environmental Commission

## Why Increase Electric Vehicle Charging Infrastructure?

Emissions from Vehicle Miles Traveled (VMT) have decreased from 2015 to 2018 thanks to EV adoption but continue to be largest sector

GHG Emission from VMT



# Los Altos Environmental Commission

## **Current Proposal**

Based on EC's work, staff input and direction from Council:

- 100% Electric Building for NEW CONSTRUCTION
- No specific exceptions by building type, but appeal process included
- Two Level II EV-ready parking spaces for single family homes

# Los Altos Environmental Commission

- Would apply
  - Newly constructed detached ADUs
- Would Not apply
  - Any remodels or additions
  - Replacement appliances
  - Construction outside of buildings

# Q & A

THANK YOU

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For any questions, feedback or concerns, please contact:  
[eancheta@losaltosca.gov](mailto:eancheta@losaltosca.gov)

## Reach Codes Survey Preliminary Results as of May 4, 2020

**Registered - 272**

Are you in support of mandating all-electric for all new construction?

		Response Percent	Response Count
Very Unsupportive		73.5%	200
Somewhat Unsupportive		4.4%	12
Neutral		2.2%	6
Somewhat Supportive		3.7%	10
Very Supportive		16.2%	44

Are you considering building a new home in Los Altos in the next couple years?

		Response Percent	Response Count
Yes		14.7%	40
No		62.5%	170
I don't know		22.8%	62

Are you considering building a new commercial building in Los Altos in the next couple of years?

		Response Percent	Response Count
Yes		0.4%	1
No		93.0%	253
I don't know		6.6%	18

Are you considering building a new mixed-use building in Los Altos in the next couple years?

		Response Percent	Response Count
Yes		1.5%	4
No		90.1%	245
I don't know		8.5%	23

**How familiar are you with all-electric appliances, such as induction stoves, heat pump water heaters, etc.?**

	Response Percent	Response Count
Very Familiar	58.5%	159
Somewhat Familiar	30.5%	83
Neutral	5.9%	16
Somewhat Unfamiliar	3.3%	9
Very Unfamiliar	1.8%	5

**Are you planning or did you attend the Reach Code webinar on April 29th?**

	Response Percent	Response Count
Yes	26.5%	72
No	58.5%	159
I don't know	15.1%	41

## Unregistered - 305

**Are you in support of mandating all-electric for all new construction?**

	Response Percent	Response Count
Very Unsupportive	65.9%	201
Somewhat Unsupportive	8.9%	27
Neutral	3.6%	11
Somewhat Supportive	6.2%	19
Very Supportive	15.4%	47

**Are you considering building a new home in Los Altos in the next couple years?**

	Response Percent	Response Count
Yes	18.0%	55
No	63.3%	193
I don't know	18.7%	57

**Are you considering building a new commercial building in Los Altos in the next couple of years?**

		Response Percent	Response Count
Yes		1.6%	5
No		91.8%	280
I don't know		6.6%	20

**Are you considering building a new mixed-use building in Los Altos in the next couple years?**

		Response Percent	Response Count
Yes		2.6%	8
No		88.5%	270
I don't know		8.9%	27

**How familiar are you with all-electric appliances, such as induction stoves, heat pump water heaters, etc.?**

		Response Percent	Response Count
Very Familiar		52.8%	161
Somewhat Familiar		35.7%	109
Neutral		4.9%	15
Somewhat Unfamiliar		3.0%	9
Very Unfamiliar		3.6%	11

**Are you planning or did you attend the Reach Code webinar on April 29th?**

		Response Percent	Response Count
Yes		19.3%	59
No		67.5%	206
I don't know		13.1%	40

**Letters Received from public on Reach Codes as of May 6, 2020**

**&**

**Comments received from Reach Code Webinar held April 29, 2020**

From: Audrey Chang

Sent: Monday, November 18, 2019 3:07 PM

To: City Council <council@losaltosca.gov>

Cc: Lexie Crilley

Subject: Building Electrification and Electric Vehicle Infrastructure Reach Codes - All Electric

RE: Building Electrification and Electric Vehicle Infrastructure Reach Codes

Monday, November 18, 2019

Dear Honored Council,

Please motion to amend the draft reach code to adopt an All-Electric Reach Code.

We are representatives of the Los Altos Youth Climate Action Team, high-school champions of sustainability and environmental justice. Our organization aims to reduce the impacts of climate change through legislation.

Just the other day, Venice, Italy flooded with 6 ft high water levels, affecting world-renowned historical sites such as the St. Peter's basilica and St. Mark's square. The canals that run through the city make it exceptionally vulnerable to rising sea levels, a consequence of climate change. Italian leaders blame global warming for these high water levels—the highest in 50 years.

This event highlights the urgency of the global climate crisis—and just how immediate the repercussions are. Global average temperature has already increased by 1 degree Celsius. If it hits 1.5, there's no going back. We can't reverse the irreparable damage already caused to our planet, but we can prevent a total

catastrophe by cutting carbon emissions: drastically and immediately. With this in mind, it is absolutely vital that we take action right away by passing environmental legislation, taking tangible steps to fight the global crisis on a local front.

Los Altos can take its own steps toward a greener future by passing the Building Electrification and Electric Vehicle Infrastructure Reach Codes. By requiring that all buildings be electric, the reach codes proposed have the potential to set more sustainable infrastructure for future generations. Additionally, every 26 days, a pipeline in the US results in a fatality, and about twice as often, an injury (NRDC). Transitions to all-electric or mostly electric buildings through these reach codes will mitigate these risks and protect generations to come. Reach codes will also be cheaper in the long run as renewable resources continue to be investigated and become more available.

These benefits are among many. Furthermore, reach codes may improve indoor air quality and safety, support affordable housing, reduce cost in new construction, and increase adoption of EV's—all impacts that will protect our world from the effects of climate change, while improving the quality of life for residents.

We especially support the requirement of solar panel installments on non-residential buildings, as it will contribute to the renewable energy industry and drive the public's transition toward more sustainable energy sources.

Los Altos should follow in the footsteps of Menlo Park, Palo Alto, Mountain View, and even San Jose by taking the action to adopt these reach codes. We agree with the Environmental Commission's recommendation to pass these reach codes. However, we request the city council to amend the codes to require all-electric construction, equivalent of passing only version 1 of the reach codes.

We need to pass the most aggressive reach codes possible, and do so as quickly as possible. The longer we wait, the worse the climate gets. The longer we wait, the more gas lines will be put into the ground, which will only have to be dealt with later on. Also, it will be much easier for city staff—and everyone else involved - if these codes are to take effect on January 1st, 2020. This way, they will align with the California state building code, and there will be less complications.

You, too, will be living in a future impacted by climate change if we do not take action now. It is not only Los Altos, nor the United States that will be affected. Millions around the globe can benefit from our amalgamated small steps, and Los Altos can do their part by passing these reach codes. The power is in the hands of the city council, to represent the people's wishes and implement change that fits their meets. We request that the council considers our urges and passes the Building Electrification and

Electric Vehicle Infrastructure Reach Codes as soon as possible to create the immediate change that our planet needs.

Thank you for your consideration,

Lexi Crilley and Audrey Chang

Representing LAHS Green Team, Los Altos Youth Climate Action Team, Green Town Los Altos, Silicon Valley Youth Climate Strikes, and LAHS Climate Justice Coalition

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From: Schulze, Naomi

Sent: Monday, December 16, 2019 9:47 AM

To: City Council <council@losaltosca.gov>

Subject: Reach Codes

Dear Members of City Council,

Thank you so much for recognizing the importance of reach codes. This issue is so important to me and future generations. For example, I spoke at the meeting on 11/19/19 on how our natural wonders are disappearing, and people like myself, who hope to work in the outdoors, may not get a chance to do that. That said, I and my fellow Los Altos Youth Climate Action Team members are so happy that our voices were heard! We hope that these reach codes will be passed. Again, thank you for recognizing that reach codes are important.

Sincerely,

Naomi Schulze (9th, Los Altos High School)

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**From:** Adeline Kopp

**Sent:** Sunday, February 02, 2020 4:03 PM

**To:** City Council <council@losaltosca.gov>

**Subject:** Los Altos Youth Team for Reach Codes

Dear City Council,

Hi, I'm Addy. I with LAYCAT, and I'm very concerned with our current state of the carbon footprint of our community. We would like to push all electric reach codes. This means that all new buildings built will

require electric instead of gas. We really need to pass this reach code because at our current state we need to take action before the climate crisis is not reversible.

Addy

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From: Allison Teo

Date: February 5, 2020 at 6:57:32 AM PST

To: council@losaltosca.gov

Subject: Los Altos Youth Team for Reach Codes

Dear City Council Members,

My name is Allison, and I am a high school sophomore and a part of the Los Altos Youth Climate Action Team. Currently, we are pushing for an all-electric reach code for construction in the city. We want to prioritize eliminating natural gas lines in all new construction because we are concerned about the carbon footprint of our city.

Buildings (both commercial and residential) contribute to carbon emissions as the second highest source of emissions- just after transportation. This is important to me because I fear for our environment in the near future as the climate is rapidly warming and natural disasters become more common, like the fires in California, the Amazon and Australia. If we do our part, we can influence other local cities in the Silicon Valley to adopt policies such as the all-electric reach code.

Thank you for your time and consideration! Allison Teo

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From: Traveler Ursa

Sent: Sunday, February 02, 2020 4:03 PM

To: City Council <council@losaltosca.gov>

Subject: Electrifying Buildings in Los Altos

Dear city council members,

My name is Emilie and I am part of the Los Altos Youth Team for Electrical Reach Codes. I believe it would be best if we start an all electric reach code to reduce Los Altos' carbon footprint. This is important to me as I do not want to die in the later future due to global warming, nor do I want future generations to deal with this problem.

Sincerely,

Emilie

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From: Annika Gaglani

Sent: Sunday, February 02, 2020 4:04 PM

To: City Council <council@losaltosca.gov>

Subject: Los Altos Youth Climate Team for Reach Codes

Dear Council-members,

My name is Annika and I am part of Los Altos Youth Climate Action Team. I just wanted to inform you that I think it is important to prioritize all-electric reach codes because it reduces carbon emissions and saves money when integrating electric appliances in developing buildings. I believe that the youth should have a future and this is a step closer to achieving that.

Regards,

Annika

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From: Audrey Chang

Sent: Sunday, February 02, 2020 4:03 PM

To: City Council <council@losaltosca.gov>

Subject: Reach Codes - LAYCAT

Dear Honored Council,

My name is Audrey and I'm a part of LAYCAT, Los Altos Youth Climate Action Team, and Green Team, the Environmental club at LAHS.

Electrification reach codes would be more efficient, safe, and environmentally friendly. I urge you to prioritize environmental policies such as these to do your part for our future. Thank you for your time.

Best,

Audrey

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From: Justin G  
Sent: Sunday, February 02, 2020 4:07 PM  
To: City Council <council@losaltosca.gov>  
Subject: All Electric Reach Code

Dear Los Altos City Council,

The Los Altos Youth Team requests that you follow suit with San Jose, Cupertino, Palo Alto, and Mountain View in regards to their all electric building reach code on all new construction developments. Please consider the benefits of reducing GHGEs and the savings that are included by going all electronic. You would save money, labor, maintenance costs, and materials, e.g. piping.

Please help put Los Altos on the right side of sustainability and environmental history.

Many thanks in advance!

Sincerely,

Justin

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From: Connie Miller  
Sent: Tuesday, April 28, 2020 5:40 PM  
To: City Council <council@losaltosca.gov>  
Subject: Please pass aggressive Reach Codes now

Esteemed Councilwomen:

I am in strong support of going beyond the Environmental Commission's current Reach Code recommendation and implementing an all-electric policy for all new construction as well as capturing both major additions and remodels with a partial electric code mandate. Doing so, we can make a bigger impact towards meeting our CAP goals. According to Steve Golden in Planning, only about 40 new single-family home construction permits are issued each year on average. With a housing stock of approximately 11,500 homes, at that rate, it would take over 287 years to get our homes clean and gas free. By then, it will be too late.

I favor no new gas infrastructure for all new construction, period. In a matter of years, gas is going to be obsolete and expensive as more people rely on electricity combined with renewable energy and fewer people share the cost burden of maintaining gas lines. It makes sense to pair our state's 2020

solar panel code for all new construction with all-electric technology. The electric technologies in these codes have evolved and are now cost effective and proven. You can't rely on a decade old experience to judge their performance today. Savvy builders and homeowners are already installing them.

For remodels and additions, I would like to see Los Altos follow the lead of Menlo Park and require HVAC, water heating and dryers to be all electric if 75% or more of the structure is modified or added to. People could keep their gas stoves and fireplaces that are not as impactful in CO2e reduction as the other appliances. In a perfect world, we offer an incentive for remodels and additions to go all electric. (They could be shortened approval cycles, rebate programs that GreenTown could help support etc.) We all know there are many 'remodels' and 'additions,' where the owners leave one wall standing to avoid new construction fees and increased property taxes. These homes need to be captured too if Los Altos stands to make real progress in their Climate Action Plan. GreenTown Los Altos is currently refining their written position along these same lines. I offer them as a private individual at this time.

I have heard some people say the Reach Codes need more time to be studied and to let the community as a whole weigh in on this matter. We can't rely on the free-will of the people to make these kinds of health and safety decisions in the amount of time we have to act any more than we can expect them to drive safely without speed limits, not smoke in public establishments or even to shelter-in-place voluntarily. Reach Codes have been in the public eye since before November 2019. During the November City Council meeting there were many speakers on the subject, including several of our impassioned youth, expressing concern for their future with climate change. Since that November 2019 city council meeting, nine of the thirteen SVCE cities have passed Reach Codes. What is Los Altos waiting for? This needs to be an urgent priority now. I applaud those of you forward thinking members of the Council who have prioritized this all-important topic.

Connie Miller

18-year Los Altos Resident

Broker Associate with Compass Real Estate in Los Altos

GreenTown Los Altos Board Member

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From: Mike and Jana Schlansker

Sent: Thursday, April 30, 2020 12:14 PM

To: City Council <council@losaltosca.gov>

Subject: Reach Codes support

I support the adoption of Reach Codes. Reach Codes are an effective way for Los Altos to reduce its carbon footprint and achieve its greenhouse gas reduction targets.

Thank you,

Jana Schlansker

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From: Donna Staton

Sent: Tuesday, April 28, 2020 4:25 PM

To: City Council <council@losaltosca.gov>

Subject: Supporting your efforts on Reach Codes

Hello Mayor Pepper, Vice Mayor Fligor, Ms. Bruins, Ms. Enander and Ms. Eng:

I'm writing in strong support of your work to help the City of Los Altos move forward in our efforts to reduce global warming and climate change.

I thought the commentary in the Town Crier last week from Jan was terrific! We MUST protect our planet by addressing climate change with the same commitment and cooperation we have all been demonstrating in protecting ourselves and our community from COVID-19.

As a pediatrician concerned about leaving our children a healthy environment, I applaud adopting Reach Codes requiring all-electric appliances in new construction. I would go further and do the same for major remodels.

But I also favor these Reach Codes for another important reason—not related to climate change. Using gas appliances in our living spaces is unhealthy. It produces not only nitrous dioxide (increasing risk of asthma and obstructive lung disease) but also carbon monoxide, fine particulate matter and volatile organic compounds. Children are especially susceptible as they breathe faster and the harm can be cumulative over time. Even healthy adults and seniors with weakened lungs should take care. As you probably know, exhaust fans should be used every time we turn on a burner, but most people just don't realize this!

I'm a member of the American Academy of Pediatrics Council on Environmental Health, and have MANY resources I could provide with data and advocacy supporting the move away from natural gas.

If any of you would like me to share these, I'd be more than happy to.

I will work hard to spread the word about the many benefits (safety, health, environmental) of moving away from natural gas. If there's anything I can do to help you in your efforts here, please just let me know.

Thank you for your hard work on this!

Yours very truly,

Donna M. Staton, MD, MPH

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From: Donna Davies

Sent: Tuesday, May 5, 2020 12:58 PM

To: City Council <council@losaltosca.gov>

Subject: I'm for Reach Codes

Hello City Council Members and staff,

I am very supportive of the enactment of the Reach Codes because it is the right thing to do. We have such a short window of opportunity to change the direction of global warming and ALL solutions must be enacted. We cannot select one from a menu. We need to select all of them. Banning gas from new construction is a winning solution.

My husband and I live in a home built in the 50s. Earlier this year, we had a team come in and electrify our heating by adding a heat pump and four mini splits. It was very expensive but as I've written, it's the right thing to do. How much more efficient and less costly to install electric HVAC systems and appliances when homes are being built!!

(We installed solar panels years ago.) We plan on getting an electric car next. And we will replace our gas stove and water heater with electric, too.

Thank you for your consideration and vote,

Donna Davies

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From: Steffy Reader

Sent: Tuesday, May 5, 2020 10:10 PM

To: City Council <council@losaltosca.gov>

Subject: I Support Reach Codes

Honorable Members of the Council,

Thank you for your leadership in advancing building electrification Reach Codes for Los Altos. I appreciate the hard work required to improve the carbon footprint of our community. Reach Codes are a smart, efficient step on the long journey to a more sustainable Village. Please keep making Los Altos greener!

I support Reach Codes for the following reasons:

1) Reach Codes support our community's climate goals. They will reduce Los Altos' carbon footprint from buildings - the second largest contributor to our community's greenhouse gas emissions - because unlike natural gas, our electricity from SVCE, is 100% carbon-free.

2) Reach Codes will result in healthier buildings. They reduce gas combustion by-products providing healthier indoor air for our families and reduce our community's risk of a San Bruno-type disaster. Healthier indoor air is pure gold!

3) Reach Codes save money. The CEC has demonstrated that Reach Codes are cost-effective for consumers, so homeowners in our community will realize energy and cost-savings from all-electric homes.

Thank you for your efforts to protect the health and well-being of our community and our planet. Please vote for Reach Codes when they come before the Council.

Sincerely,

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From: Teri

Sent: Tuesday, May 5, 2020 4:23 PM

To: City Council <council@losaltosca.gov>

Subject: I Support Reach Codes

Honorable Members of the Council,

Thank you for your leadership in advancing building electrification Reach Codes for Los Altos.

I support Reach Codes for the following reasons:

1) Reach Codes support our community's climate goals. They will reduce Los Altos' carbon footprint from buildings - the second largest contributor to our community's greenhouse gas emissions - because unlike natural gas, our electricity from SVCE, is 100% carbon-free.

2) Reach Codes will result in healthier buildings. They reduce gas combustion by-products providing healthier indoor air for our families and reduce our community's risk of a San Bruno-type disaster.

3) Reach Codes save money. The CEC has demonstrated that Reach Codes are cost-effective for consumers, so homeowners in our community will realize energy and cost-savings from all-electric homes.

Thank you for your efforts to protect the health and well-being of our community and our planet. Please vote for Reach Codes when they come before the Council.

Sincerely,

Teri Wiss

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From: george jahn

Sent: Sunday, November 24, 2019 9:52 PM

To: City Council <council@losaltosca.gov>

Subject: proposed ban on nat gas installations in new residential housing

I have lived in Los Altos since 1977. I have remodeled my residence over time and use natural gas for space heating, water heating, and cooking, although I originally had a heat pump and electric cooking for several decades. Your proposed ban will not affect me, but limits new construction. I recommend you require 200A service to new residences, while allowing gas if desired. At some future time, when all the issues involved with all electric residences are practically solved, then the houses might be converted from nat gas. Remember, the choice of energy sources means picking the "best of the bad solutions." Electricity is far from a panacea for global warming and related matters. All energy generation has negatives, many of which are ignored by promoters of specific types of energy.

George E. Jahn

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From: Jennifer Granath

Sent: Sunday, November 24, 2019 9:15 PM

To: City Council <council@losaltosca.gov>

Subject: Don't ban gas in Los Altos

Just the thought of banning gas for new construction seems utterly preposterous given the state of pge and all the power outages they have threatened with In The past few months. Gas cooking, heating, and fireplaces are the only thing potentially keeping us from freezing or starving in situations of power outages. I have invested in solar but even that large price tag does not free me from dependence on pg&es delivery system. Gas is the only was not only is it less expensive and a better cooking method, but it's now the o my fireplace type we can have after banning of wood burning fireplaces.

Where are the homeowner right?! This is not something government should get involved in. We pay millions for our homes and should be able to have gas stoves and gas fireplaces if we want.

Please drop this issue and focus on more pressing town issues like how to attract new businesses. We have so many empty storefronts in Main Street!

Thank you

Jennifer Granath

32 year resident

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From: Roberta Phillips

Date: March 8, 2020 at 6:53:40 PM PDT

To: City Council <council@losaltosca.gov>

Subject: REACH CODES

Dear Council Members

I wanted to share this article with you.

<https://www.northbaybusinessjournal.com/industrynews/construction/10152608-181/code-changes-coming-builders-worry>

Thanks

Roberta Phillips

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From: Kirk Lindstrom

Date: March 28, 2020 at 12:35:29 PM PDT

To: Jan Pepper

Cc: City Council <council@losaltosca.gov>, Kirk Lindstrom

Subject: Against the ban on NG

Hello,

I hope you and your families are all well and surviving this COVID-19 shutdown.

This is just a short note to say I am very much against the Los Altos City Council banning natural gas heaters and stoves for home remodels. For those of us who have retired and semiretired here, it seems we are constantly asked to pay more taxes, more fees, higher energy prices, etc. while we get less service and a lower quality of life.

Yes, climate change is an important issue but it is not fair my friends in Florida are cooling their homes in the summer with cheap, dirty coal generated power while we pay many times more already for cleaner power and you want to make it worse if we remodel our homes and follow the new code.

Yes, it makes a bold statement if Los Altos bans natural gas and you can put a symbolic feather in your cap, but it is like using a teaspoon to change the level of the ocean. It is ONLY effective if we get everyone on the planet to go along. By going early, we give up the ability to bargain AND it makes it easier for states using coal to continue since we are doing more than our share.

Suggestion, why not instead ban or encourage people to remove their outdoor natural gas heaters? The idea I'll have to pay much more for electricity to heat my old house if my heater goes out does not sit well knowing so many with these outdoor natural gas heaters can continue to use them.

Natural Gas isn't perfect but it is a good bridge fuel until we have clean, safe nuclear fusion (not fission) power or we can build new homes for people who can afford them with batteries, solar roofs, heat pumps and super good insulation.

Thank-you,

Kirk Lindstrom

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From: Jackie Stephens

Date: March 9, 2020 at 5:55:43 PM PDT

To: City Council <council@losaltosca.gov>

Subject: NO on natural gas ban

Do not ban natural gas installations in any structures. Council should not be deciding for its citizens the kind of stove on which they are allowed to cook. People should not be forced to cook on electricity (uncontrollable/delayed cooking heat and in my view also more dangerous for children as electric burners are not obviously hot while warming or cooling). Clothes are often yellowed by an electric dryer.

Solutions??—A better “bang for our buck” in terms of dealing with climate change and eliminating use of extra packaging materials (which may or may not even be recyclable), and which makes much more sense is to ban all Amazon type and meal deliveries in the city, OR charge a fee that should be passed on by delivery entities to their customers who like the delivery convenience rather than shopping or eating in local brick and mortar stores (which are going under in many locales). The delivery companies know where their deliveries are going. If SF can rein in Air BNB and their customers, a similar type of “regulate and make the customer pay” for the polluting service they want rather than allowing those customers to push their climate and recycle material costs on to other citizens who are not so polluting the air is only fair.

FYI - There has been no notice to us citizens regarding this upcoming decision issue. I learned of it today in the Post newspaper. I don't know which city unit is discussing it tonight. It is evidently listed on the agenda under some other unrelated title for discussion!

Jackie Stephens

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From: Jill Woodford

Date: Thu, Apr 30, 2020 at 7:25 AM

Subject: Reach Codes

To: David J Klein

Hi David - I attended the Reach Codes webinar last night and submitted a question that was not answered. So many questions were posted.

I wanted to let you know that I cannot support the Reach Codes initiative as written. Although I would love to support such a measure, I do not think it is comprehensive enough, and will place an even bigger burden on poorer communities which already suffer the greatest environmental damage. When John Supp of SVCE mentioned peaker power plants, that was the end of the discussion for me. I spent a lot of time working with low income communities in San Jose doing Environmental Justice volunteer work when I lived there. One of the things I stopped was a diesel peaker power plant initiative proposed by then Mayor Ron Gonzales. There was already a Superfund site, which had caused a 90% birth defect rate in a mobile home community nearby, and a major freeway with no sound walls. 10's of thousands of cars went through this neighborhood every day, and adding diesel peaker power was not the solution to the energy crisis. The sad thing is, those people living in that community would not speak up. They're afraid to, so they continue to suffer the burden of other people's luxuries. When Silicon Valley Toxics Coalition met with the mobile home community to try to get them to speak out, all they wanted was cable TV. Every child born had a missing hand or some other deformity or illness. It is nice to think we can clean up our community's air quality, but at what expense and who will pay? I believe it is possible to do this right, but the current plan falls short.

Los Altos can do better than this. Here is what I would support:

- No gas on all new construction, including the entire property. Currently the codes do not include pools, outdoor kitchens, fire pits, etc. Ban all gas connection to the house and all permits for any gas powered appliances.
- Require solar to cover the entire property, not just the house, including pools and 2 electric vehicles. If the Reach Codes require electric car connection capability, then they should be self powered, otherwise some or all of this energy is coming from a poor community.
- Require 10% over on solar generation. There should be some analysis of new homes built in the past two years in Los Altos with review of their power consumption and comparison to the T24 calculations. T24 assumptions are made based on typical behavior. Most Los Altans are not typical and have fancy, energy sapping refrigerators, extra appliances, electric cars, run their AC all day when it's 75 degrees outside, etc. Without actual data, we cannot assume the "Net zero" of T24 is accurate.
- Require net zero for all new pool permits and electric car charging, regardless of the existing house status.
- Ban foam insulation from all new buildings. The environmental cost is not acceptable. This is an easy way to pass T24 and is probably used in pretty much every house, but the environmental impacts are significant. We banned plastic shopping bags, we can ban foam insulation.
- Ban fuel sourced generators

If you have any insights into this and how the City can possibly get to a solution that I support, please let me know.

Thanks,

Jill

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From: John Claras

Sent: Tuesday, May 5, 2020 1:42 PM

To: City Council <council@losaltosca.gov>

Subject: Los Altos City Plan to Eliminate Gas Appliances

Hi Lynette,

I hope you and your family are all doing well! Thank you for taking the time to get back to me.

The video is interesting, thank you for sharing. Solving the global warming problem by eliminating gas appliances in lieu of electricity has drawbacks. It takes 10w of electricity generated to get 1w to your house. It is true that PG&E generates only 20%-22 of its power from fossil fuels. That would still leave 2w generated for 1w at the use point.

If the goal is lower carbon emissions we need to go in a different direction.

Other considerations:

Older and more vulnerable Los Altos Residents (on a fixed income) might be faced with large bills (depending on how the legislation is written). Possible problem: if a water heater, oven, or dryer needed replacement, they would have to rewire the house for 210v hookups. This could cost thousands of dollars and take weeks to complete. Think of a young family with children not having a washing machine or hot water or a stove for weeks? Think of older families who have lived in Los Altos for decades (and are not recent millionaires). Is it fair to penalize them with tens of thousands of building requirements just to get a new water heater? Further, the needs of poorer residents need to be considered, electricity is very expensive (from PG&E) compared to gas.

Perhaps we could go in a different direction?

1. Require attic fans with every AC unit put in. This would lower CO2 and pay for itself. On the hottest days we don't need to use our AC unit until early evening because of the attic fan. Make this a requirement. It is cheap and saves everyone money and CO2.

2. Ban autonomous vehicles in Los Altos. Most of these use gas and are contributing more to global warming. Plus they

increase traffic on our streets and are potentially dangerous. Banning these vehicles would do more than all the water heaters combined.

Other popular but wasteful activities:

1. Ban smart devices. They are basically on all the time and consume much power.-- This would be unpopular voters.
2. Require electric car owners to have solar, because of the above inefficiencies - very unpopular voters.
3. Encourage people to turn off their computers at night. Difficult to require, unpopular with voters.

Other Option:

Do nothing. 30 million barrels of oil (per day) are not being burnt due to the downturn. 20-30 million people will lose their jobs over the next 12 months. Maybe now is not the right time to add a gas tax.

I hope you will reconsider this ordinance. Something this drastic needs a vote of the people.

A more pressing need:

Perhaps Los Altos City could provide living quarters for our Fire and Police personnel, (many whom live out of the area). The benefits would be

long term and support the residents of Los Altos.

Kindest of Regards,

John Claras

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**Comments posted on the webinar chat:**

I fully support an all-electric reach code. We are running out of time to take action on climate change, and our local cities need to lead the way forward. In a crisis caused by fossil fuels, the logical first step in this crisis is to stop making the problem worse. There is absolutely no reason that we should be putting new gas pipelines into the ground in 2020. Gas pipelines constantly leak methane into our atmosphere. When these leaks are taken into account, fracked methane gas is worse than coal in terms of GHG emissions.

Many cities have already begun the process of phasing out gas. Gas lines will become stranded assets as our society transitions rapidly to all-electric. The cost of maintaining this aging gas infrastructure will increase as the user base shrinks. Every new gas line that we build is a climate tragedy and a financial liability that we absolutely will have to deal with. All electric homes are less expensive, healthier to live in, pollute less (thanks to the CA grid and CCEs like SVCE), and

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Is 1 out of 4 houses in the US being all electric misleading? "Applicable" is that Maine has a large percentage of all electric. "Inapplicable to N-CA" is all electric in states with little winter heating need. Many of these southern states also have large nuclear components and very low electrical rates.

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Very supportive of a new construction reach code and would frankly like to see this extended to major remodels and additions. Several people are talking about letting the market choose. The challenge there is that the market does not account for the environmental externalities associated with natural gas use - pollution, climate change, negative health impacts - from fossil fuel use.

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Sorry, electric cars should also be included as they are not part of T24.

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Yes, and those homes had wood burning fireplaces for heating. That's already been taken away. Now council is thinking about taking the gas away.

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Don't we have better use of our time than pursuing the outlaw of NG? The reduction to the carbon footprint does not amount to more than a molecule of benefit. The massive growth in coal burning power stations in Asia far out weighs anything we might do. I have traveled there over the last 15 years and it is devastating to the environment. In the last 10 years the US has significantly reduced its carbon footprint by migration to cheap NG from really dirty coal. BTW I just installed a new rangetop yesterday and it allows me to ignite the burners when there is no power. I disagree with Lei Yuan's comment that this is not supported.

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When making comparisons relative to use of fossil fuels it's important to remember two advantages they enjoy: they are supported by gov't subsidies (i.e. your money, as paid in federal taxes) plus users of fossil fuels get to pollute for free even though the cost to all of us is very high (health, climate change, etc.)

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## ENVIRONMENTAL COMMISSION

## 2019/20 Targets &amp; Work Plan

May 11, 2020

Targets	Projects	Assignments	Target Date	City Priority related to	Status
Climate Action Plan	Review and comment on Building and Electric Vehicle Reach Codes	<ul style="list-style-type: none"> <li>Subcommittee -Don Weiden, Laura Tekler and Lei Yuan</li> </ul>	May 2020	CAP Goals	<ul style="list-style-type: none"> <li>On November 19, 2019, City Council directed the EC and City staff to pursue an All-Electric Reach Code Ordinance</li> <li>On January 30, 2020, the subcommittee and City Staff met to discuss the next steps</li> <li>Ordinance language revised by subcommittee and reviewed by staff Feb. 2020</li> <li>Reach Code community webinar was held April 29, 2020</li> <li>Environmental Commission to discuss next steps after webinar</li> </ul>
	Update of City's CAP	<ul style="list-style-type: none"> <li>Subcommittee to work with staff and Subconsultant</li> </ul>	Monthly	CAP Goals	<ul style="list-style-type: none"> <li>The Sustainability Coordinator position was approved by the City Council for the Fiscal Year 2019-20/2020-21 Operating Budget on June 11, 2019 and position was filled Jan. 2020</li> <li>Staff is currently discussing budget and next steps with City management team</li> <li>RFP is targeted for Summer 2020</li> </ul>
Water Conservation & Stormwater Management	Green Infrastructure Plan	<ul style="list-style-type: none"> <li>Assist staff in development and review of Plan</li> </ul>	June 2019	Storm Water Regional Discharge Permit	<ul style="list-style-type: none"> <li>Staff made a presentation of the Green Stormwater Infrastructure Plan to the Environmental Commission on May 13, 2019</li> <li>This was approved by City Council on July 9, 2019</li> </ul>

Solid Waste Diversion	Provide review comments on Solid Waste Disposal Contract	<ul style="list-style-type: none"> <li>Subcommittee Don Weiden, Laura Tekler and Chad Martin</li> </ul>	May 2020	Solid Waste Disposal	<ul style="list-style-type: none"> <li>The Mission Trails Waste System (MTWS) Contract was approved by City Council on Oct. 22, 2019</li> <li>The MTWS Contract extension will be finalized in May/June 2020</li> <li>Staff is working with R3 Consultants and MTWS on finalizing the revisions from the track changes received</li> </ul>
	Investigate initiatives on limiting single use plastics	<ul style="list-style-type: none"> <li>Subcommittee to work with Staff and Subconsultant</li> </ul>	Monthly	Recycling	<ul style="list-style-type: none"> <li>Andrea Trese (Assistant Civil Engineer) and Emiko Ancheta (Sustainability Coordinator) are the Los Altos representatives for the Ad Hoc Model Foodware Ordinance Committee</li> <li>The draft model ordinance was distributed to the County Ad Hoc Committee members for discussion in Nov. 2019; currently, revisions are being made</li> <li>The EC submitted a status report to City Council and Staff on December 16, 2019</li> <li>The second draft of the ordinance was reviewed at the Feb. 2020 Adhoc meeting</li> </ul>
Community Outreach & Education	Develop program in collaboration with the Los Altos History Museum	<ul style="list-style-type: none"> <li>Environmental Education Fund held by LACF</li> <li>David Klein</li> </ul>	June 2019	Public outreach and education	<ul style="list-style-type: none"> <li>Coordination with History Museum Apricot Stem Fair; EnviroThon Challenge held at the Apricot STEM Fair on June 30, 2019</li> <li>Winners and awards were selected at the EC meeting of July 8, 2019</li> <li>EC will coordinate w/ History Museum for next year's event</li> </ul>
	Update environmental measures on the City web site	<ul style="list-style-type: none"> <li>Chad Martin</li> </ul>	Ongoing	Public outreach and education	<ul style="list-style-type: none"> <li>The City has hired a new Public Information's Officer, Sonia Lee. Sonia will work together with staff and Subcommittee on updating the City's website, including the Environmental Resources Dashboard</li> </ul>
	Continue gas-powered leaf blower (GPLB) ban outreach and education	<ul style="list-style-type: none"> <li>Laura Tekler</li> </ul>	Ongoing	Public outreach and education	<ul style="list-style-type: none"> <li>Linda Ziff gave an update on her team's efforts to educate about the GPLB at the March 9, 2020 EC meeting</li> </ul>

Continue anti-idling outreach and education	<ul style="list-style-type: none"> <li>• Don Weiden</li> </ul>	Ongoing	Public outreach and education	<ul style="list-style-type: none"> <li>• On June 10, 2019, the Los Altos HS Survey Results were presented</li> <li>• The EC has been supporting the efforts of Greentown Los Altos</li> </ul>
Continue to support SVCEA community outreach and education		Ongoing	Public outreach and education	<ul style="list-style-type: none"> <li>• Reach Code webinar was held April 29, 2020</li> </ul>
Assist staff with various outreach and education efforts	<ul style="list-style-type: none"> <li>• Climate Action Plan</li> <li>• Water Conservation</li> <li>• Storm Water Management</li> <li>• Solid Waste Diversion</li> <li>• Urban Forest / Trees</li> <li>• Downtown Vision</li> </ul>		Public outreach and education	