REGULAR MEETING of the Community Advisory Committee of the Clean Power Alliance of Southern California

Thursday, January 19, 2023

1:00 p.m.

Visit CPA's YouTube Channel to view a Live Stream of the Meeting
*There may be a streaming delay of up to 60 seconds. This is a view-only live stream.

CPA Office
801 S. Grand Ave., Suite 400
Los Angeles, CA 90017

Members of the public may also participate in this meeting remotely at the following location:

Ventura County Government Center
CEO Channel Islands Room, 4th Floor Hall of Administration
800 South Victoria Avenue, Ventura, CA 93009

PUBLIC COMMENT: Members of the public may submit their comments by one of the following options:

- Email Public Comment: Members of the public are encouraged to submit written comments on any agenda item to clerk@cleanpoweralliance.org up to four hours before the meeting. Written public comments will be announced at the meeting and become part of the meeting record. Public comments received in writing will not be read aloud at the meeting.
- Provide Public Comment During the Meeting: The General Public Comment item is reserved for persons wishing to address the Committee on any Clean Power Alliance-related matters not on today's agenda. Public comments on matters on today's Consent Agenda and Regular Agenda shall be heard at the time the matter is called. Comments on items on the Consent Agenda are consolidated into one public comment period. Members of the public who wish to address the Committee at CPA's Office are requested to complete a speaker's slip and provide it to staff. If you are attending from a remote location, please identify yourself to a CPA representative when your item is called. Each speaker is limited to two (2) minutes (in whole-minute increments) per agenda item with a cumulative total of five 5 minutes to be allocated between the General Public Comment, the entire Consent Agenda, or individual items in the Regular Agenda. Please refer to Policy No. 8 – Public Comment for additional information.

ACCESSIBILITY: Meetings are accessible to people with disabilities. Individuals who need special assistance or a disability-related modification or accommodation to participate in this meeting, or who have a disability and wish to request an alternative format for the meeting materials, should contact the Clerk of the Board at least two (2) working days before the meeting at clerk@cleanpoweralliance.org or (818) 398-6095. Notification in advance of the meeting will enable us to make reasonable arrangements to ensure accessibility to this meeting and the materials related to it.

CALL TO ORDER AND ROLL CALL

GENERAL PUBLIC COMMENT

CONSENT AGENDA

1. Approve Minutes from October 20, 2022 and November 17, 2022, Community Advisory Committee Meetings
2. Update on Implementation of Workplan Priorities
3. CAC Standard Operating Procedures – Letters of Support

REGULAR AGENDA

4. Oral Update from the Chief Executive Officer on CPA Operations
5. Building Electrification Program Update

COMMITTEE MEMBER COMMENTS

ITEMS FOR FUTURE AGENDAS

ADJOURN – NEXT MEETING ON FEBRUARY 16, 2023

Public Records: *Public records that relate to any item on the open session agenda for a regular Committee Meeting are available for public inspection. Those records that are distributed less than 72 hours prior to the meeting are available for public inspection at the same time they are distributed to all, or a majority of, the members of the Committee. The public records are available for inspection online at www.cleanpoweralliance.org/agendas.*

Return to Agenda

MINUTES

REGULAR MEETING of the Community Advisory Committee of the

Clean Power Alliance of Southern California

Thursday, October 20, 2022

1:00 p.m.

The Community Advisory Committee conducted this meeting in accordance with California Governor Newsom's Executive Order N-29-20 and COVID-19 pandemic protocols.

CALL TO ORDER AND ROLL CALL

Chair Fromer called the meeting to order at 1:02 p.m., and Christian Cruz, Community Outreach Manager, conducted a roll call.

East Ventura/West LA County	Angus Simmons	Remote
East Ventura/West LA County	Jennifer Burke (Vice-Chair)	Remote
East Ventura/West LA County	Debbie West	Remote
San Gabriel Valley	Richard Tom	Remote
San Gabriel Valley	Kim Luu	Remote
West/Unincorporated Ventura County	Lucas Zucker	Remote
West/Unincorporated Ventura County	Vern Novstrup	Remote
South Bay	David Lesser	Absent
South Bay	Vacant	
Gateway Cities	Irella Perez	Remote
Gateway Cities	Genaro Bugarin (Vice-Chair)	Remote
Westside	Cris Gutierrez	Absent
Westside	David Haake	Absent
Unincorporated Los Angeles County	Neil Fromer (Chair)	Remote
Unincorporated Los Angeles County	Kristie Hernandez	Absent

All votes are unanimous unless otherwise stated.

GENERAL PUBLIC COMMENT

No public comment.

DRAFT

CONSENT AGENDA

1. Approved Minutes from September 22, 2022, Community Advisory Committee Meeting

2. Update on Implementation of Workplan Priorities

Motion	Committee Member Tom, San Gabriel Valley
Second	Committee Member West, East Ventura/West LA County
Vote	The update was approved by a roll call vote

REGULAR AGENDA

3. Oral Update from the Chief Executive Officer on CPA Operations

Chief Executive Officer Ted Bardacke provided an update on CPA member agency expansion. He noted that the City of Hermosa Beach and Santa Paula have voted to join CPA, and Monrovia will vote soon.

Mr. Bardacke discussed Southern California Edison's (SCE) rate filing for next year, including an update to the Power Charge Indifference Adjustment (PCIA). The PCIA change would result in credit for CPA customers and a decrease in electricity bills.

Mr. Bardacke also discussed the upcoming elections related to CPA Board turnover and new members' onboarding and engagement in the new year.

Committee Member Bugarin inquired about support for new Board members and alternates. Mr. Bardacke noted that CPA staff would engage with staff and new board members to onboard them properly. CPA staff is working on having more engaged relationships with city staff and managers. This will bring more institutionalized perspectives on programs that directly benefit member agencies.

Mr. Bardacke responded to Committee Member Zucker's question on lessons learned related to customer education. Mr. Bardacke explained that the first step is for new customers to be aware of their first mailer/notice, which is mailed 60 days prior to service. Staff is currently working with cities on community education and utilizing the best communication channels.

4. Power Response Presentation

Program Manager of Grid Management and Resiliency Jillian Nelson provided a presentation on the Power Response program.

Committee Member Perez asked about smart technology compatibility & accessibility. She also asked if program collaterals are in different languages. Ms. Nelson explained that for homes that do not have smart technologies or compatible technologies, the Home Pathway will be an opportunity for customers to still participate in the program. Ms. Nelson clarified that the program website and collateral materials include other languages translations.

DRAFT

Committee Member Zucker asked about the cost analysis related to GHG emission reductions for the program. Chief Operating Officer Matt Langer clarified that GHG emissions reduction analysis depends on each pathway incentive level. Generally, the focus is to have a balance of incentives to enroll customers. Over time the incentive cost will decrease as the enrollment stabilizes. Furthermore, during demand response events, customer enrollment will result in a cost decrease.

Chair Fromer asked about the challenges of enrolling customers into the program and the method used in the baseline. Ms. Nelson noted that staff is currently working on a program outreach plan. Ms. Nelson also explained that the program would use the CAISO-required baseline methodology for demand response programs.

Committee Member Novstrup asked about the challenges in the enrollment process and whether there are opportunities for implementation partners. Ms. Nelson noted that there is an opportunity for collaboration with trade allies related to the Commercial Pathway.

COMMITTEE MEMBER UPDATES, ACCOMPLISHMENTS, OR WORK-IN-PROGRESS

No comments.

COMMITTEE MEMBER COMMENTS

No comments.

ITEMS FOR FUTURE AGENDA

No comments.

ADJOURN

Chair Fromer adjourned the meeting at 2:25 pm.

DRAFT

Return to Agenda

MINUTES

REGULAR MEETING of the Community Advisory Committee of the

Clean Power Alliance of Southern California

Thursday, November 17, 2022

1:00 p.m.

The Community Advisory Committee conducted this meeting in accordance with California Governor Newsom's Executive Order N-29-20 and COVID-19 pandemic protocols.

CALL TO ORDER AND ROLL CALL

Chair Fromer called the meeting to order at 1:02 p.m. and Christian Cruz, Community Outreach Manager, conducted a roll call.

East Ventura/West LA County	Angus Simmons	Remote
East Ventura/West LA County	Jennifer Burke (Vice-Chair)	Absent
East Ventura/West LA County	Debbie West	Remote
San Gabriel Valley	Richard Tom	Remote
San Gabriel Valley	Kim Luu	Absent
West/Unincorporated Ventura County	Lucas Zucker	Remote
West/Unincorporated Ventura County	Vern Novstrup	Remote
South Bay	David Lesser	Remote
South Bay	Vacant	
Gateway Cities	Irella Perez	Absent
Gateway Cities	Genaro Bugarin (Vice-Chair)	Remote
Westside	Cris Gutierrez	Remote
Westside	David Haake	Absent
Unincorporated Los Angeles County	Neil Fromer (Chair)	Remote
Unincorporated Los Angeles County	Kristie Hernandez	Remote

All votes are unanimous unless otherwise stated.

GENERAL PUBLIC COMMENT

No public comment.

DRAFT

REGULAR AGENDA

Board Chair Dr. Julian Gold provided welcoming remarks and thanked CAC members for their feedback and support on programs, scholarships, and messaging this year. Chief Executive Officer Ted Bardacke and Community Advisory Committee Dr. Neil Fromer followed with their support and thanks for the CAC's role and community perspective. Committee Member Lesser announced his resignation from the CAC, effective December 6th, and thanked staff and members for their insights during his time on the committee.

1. Youth Initiative Presentation

Committee Member Gutierrez provided an overview of the goals and benefits of the youth initiative for CPA. Community Outreach Manager Christian Cruz provided an overview of the organization Grades of Green and their SOAR program. Committee Member Gutierrez provided an overview of Pando Days, the Magenta House program.

A poll was conducted during the meeting to gauge the CAC's capacity for this initiative. The poll noted that, on average, CAC members could dedicate 2 to 4 hours a month to implementing the CAC Youth Initiative.

The CAC moved to a breakout session to discuss questions related to goals, deliverables, partnerships, and capacity.

Break Out Session

The CAC split into two groups. Group A consisted of Committee Member Lesser, Committee Member Gutierrez, Committee Member West, Committee Member Zucker, Committee Member Tom, and Committee Member Hernandez. Group B consisted of Chair Fromer, Committee Member Simmons, Committee Member Haake, Vice-Chair Bugarin, and Committee Member Novstrup.

Each group discussed youth engagement goals, understanding of renewable energy, equity, and sustainability, and draft deliverables for the initiative. CAC members highlighted that the initiative should focus on energy education with a flexible capacity to allow CPA to provide sponsorships, event tabling, and collaterals to educate youth about renewable energy.

2. CPA Diversity, Equity, and Inclusion Plan: Update and Next steps

Director of People and Culture Tanya de Hoyos and Director of Rates and Strategy Karen Schmidt provided an update on CPA's Diversity, Equity, and Inclusion Plan. The presentation covered the plan's activities, values, pillars, and goals.

Committee Member Novstrup and Vice-Chair Bugarin asked about establishing a mentoring program and the need for accountability in these efforts. Ms. Schmidt stated that every pillar has a work plan for a different department to follow enforcing workflow accountability and collaboration.

DRAFT

Chair Fromer asked about the barriers hindering success of the DEI plan and the CAC's role in assisting with implementation within the community pillar. Ms. Schmidt noted that one barrier has been program enrollment due to the lack of awareness about CPA and its programs. However, the CAC is critical in assisting CPA in overcoming that barrier by sharing CPA program opportunities with their communities and advising CPA staff on how to design and advertise programs that are responsive to local needs.

3. 2022-2023 Workplan: Key Accomplishments and the Path Forward

Community Outreach Manager Christian Cruz provided an overview and review of the 2022-2023 Workplan. The presentation highlighted key accomplishments to date and the path forward for 2023.

COMMITTEE MEMBER UPDATES, ACCOMPLISHMENTS, OR WORK-IN-PROGRESS

No comments.

COMMITTEE MEMBER COMMENTS

No comments.

ITEMS FOR FUTURE AGENDA

No comments.

ADJOURN

Chair Fromer adjourned the meeting at 3:43 pm.

DRAFT

Return to Agenda

Staff Report – Agenda Item 2

To:	Clean Power Alliance (CPA) Community Advisory Committee
From:	Christian Cruz, Community Outreach Manager
Approved by:	Ted Bardacke, Chief Executive Officer
Subject:	Update on Implementation of Workplan Priorities
Date:	January 19, 2023

RECOMMENDATION

Receive and file.

BACKGROUND

This monthly report outlines the Community Advisory Committee (CAC) and CPA staff activities supporting the CAC.

YOUTH EDUCATION INITIATIVE

In November, the CAC received a presentation on a proposed Youth Education Initiative framework for consideration by the CAC.

The framework identified potential partnerships with youth organizations, such as Pando Days and Grades of Green, that provide opportunities to educate K-12 and college students about CPA, create regional youth ambassadors, and advance knowledge about renewable energy and future clean energy career opportunities. During the retreat, the CAC divided into two groups to discuss goals and priorities for the initiative, CAC capacity for implementation, and deliverables/metrics to gauge success in the first year and beyond.

The CAC provided feedback on how this initiative could be structured, including:

- Work with students to educate communities about energy and CCAs.
- Work with youth organizations to focus educational efforts on CCAs and renewable energy within impacted communities and hard-to-reach populations.

- Reconvene the CAC Youth Education Initiative Working Group with a focus on establishing deliverables and metrics to gauge success over the next year and beyond.
- Identify statewide program and grant opportunities focused on youth education that the CAC committee could leverage to enhance this initiative.

Staff, in conjunction with CAC members Cris Gutierrez and Dr. Irella Perez, have begun to update the Youth Initiative framework with this feedback and will present an updated framework to the Youth Initiative Working Group in early February for review. Based on any additional feedback, a final proposal will be submitted to the CAC in March for final approval.

Return to Agenda

Staff Report – Agenda Item 3

To:	Community Advisory Committee
From:	Nancy Whang, General Counsel Christian Cruz, Community Outreach Manager
Approved By:	Ted Bardacke, Chief Executive Officer
Subject:	Guidance on Letters of Support from Individual CAC Members
Date:	January 19, 2023

RECOMMENDATION

Receive and file.

BACKGROUND

The Joint Powers Agreement ("Agreement") enumerates the powers, responsibilities, and limitations of the Board and the enumerated committees. Section 5.9.1(c) of the Agreement establishes the Community Advisory Committee ("CAC") to "provide a venue for ongoing citizen support and engagement in the operations of CPA." The Board-approved Bylaws explains that the CAC is "advisory" in that the CAC will "advise the Board on community outreach and engagement issues, outreach to key stakeholder communities, and undertake any assignments as directed by the Board." Art. VIII, Sec. 1.

Some CAC members have inquired about how their membership impacts their ability to advocate in other forums and in what ways they may use their membership on the CAC in their advocacy efforts, particularly in Letters of Support that they author or sign on to.

DISCUSSION

Individual members of the CAC may support policies in their respective communities in their individual capacity. Individual members may title themselves as a member of the CAC only if they note that this title is for identification purposes only.

Given the current parameters of the CAC's mandate as specified in the Agreement and Bylaws, the CAC, as a body, may not take action (i.e., vote) on policy positions or a policy platform, including submitting letters of support as a body separate from actions positions approved by the CPA Board of Directors. For further questions regarding letters of support or other stakeholder outreach, CAC members may contact Christian Cruz, Community Outreach Manager.

ATTACHMENT

None.

Return to Agenda

Staff Report – Agenda Item 4

To:	Community Advisory Committee
From:	Ted Bardacke, Chief Executive Officer
Subject:	Oral Update from the Chief Executive Officer on CPA Operations
Date:	January 19, 2023

The Chief Executive Officer will provide an oral report on CPA operations.

Return to Agenda

Staff Report – Agenda Item 5

To:	Community Advisory Committee
From:	Joanne O'Neill, Director of Customer Programs
Subject:	Building Electrification Presentation
Date:	January 19, 2023

Staff will provide a presentation on the Building Electrification program.

ATTACHMENT

1) Building Electrification program PPT

January 19, 2023

CPA CLEAN POWER ALLIANCE

Customer Programs Update

Agenda

- Local Programs for a Clean Energy Future Plan Background

- Building Electrification Program
  - Background: Importance of decarbonizing buildings & transportation
  - Role of reach codes
  - Benefits of electrification reach codes
  - Reach code survey results
  - Code Incentive Program
  - Reach code examples
  - Next steps and questions

Today's presentation is for information only – no action is required.

Local Programs for a Clean Energy Future Plan Background

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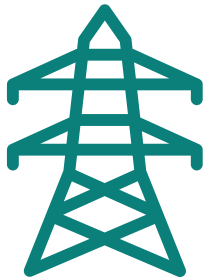
Local Programs for a Clean Energy Future

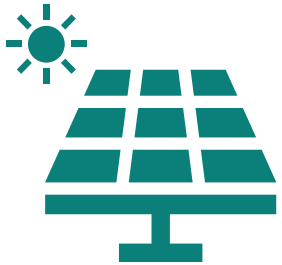
Published in 2020, the Plan sets a 5-year vision for programs, focused on 3 pillars:

Resilience & Grid Management



Building & Transportation Electrification

Local Procurement



Programmatic Offerings

Resilience & Grid Management	Demand Response – Energy Storage (Power Response) Peak Management Pricing *Clean Back-Up Power for Essential Facilities (Power Ready)*
Building & Transportation Electrification	Public EV Charging (CALeVIP) Workforce Development* ***Building Electrification Code Incentives***
Local Procurement	Community Solar (Power Share) 100% Green Discount (Power Share)

*Introduced after Plan creation

Xico Manarolla

Building Electrification Program Manager

CPA CLEAN POWER ALLIANCE

Building & EV Charging Electrification Program

Importance of Decarbonizing Buildings and Transportation

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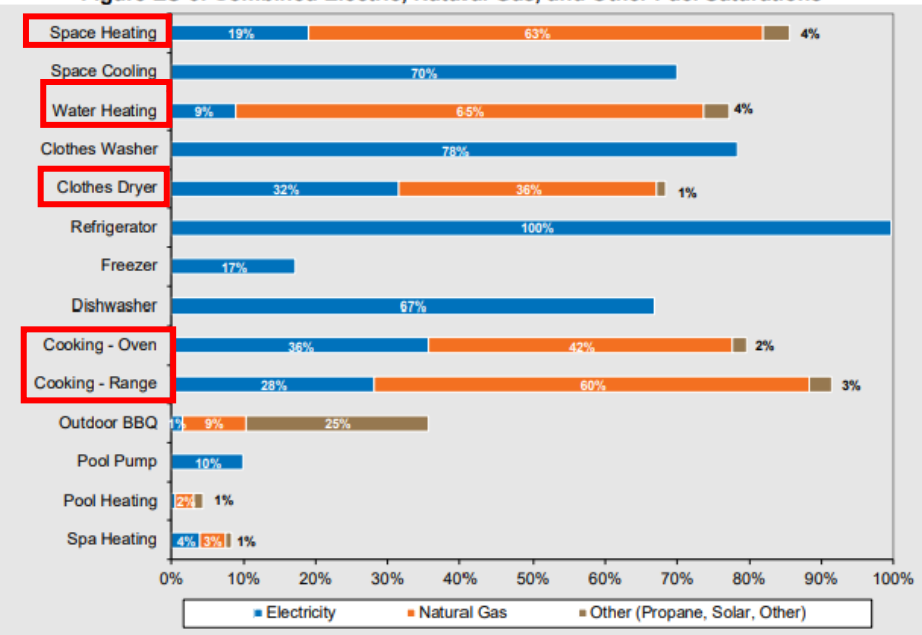
Natual Gas: Residential Saturation & Commercial End Use

Residential Nat Gas Saturation

Figure ES-6: Combined Electric, Natural Gas, and Other Fuel Saturations

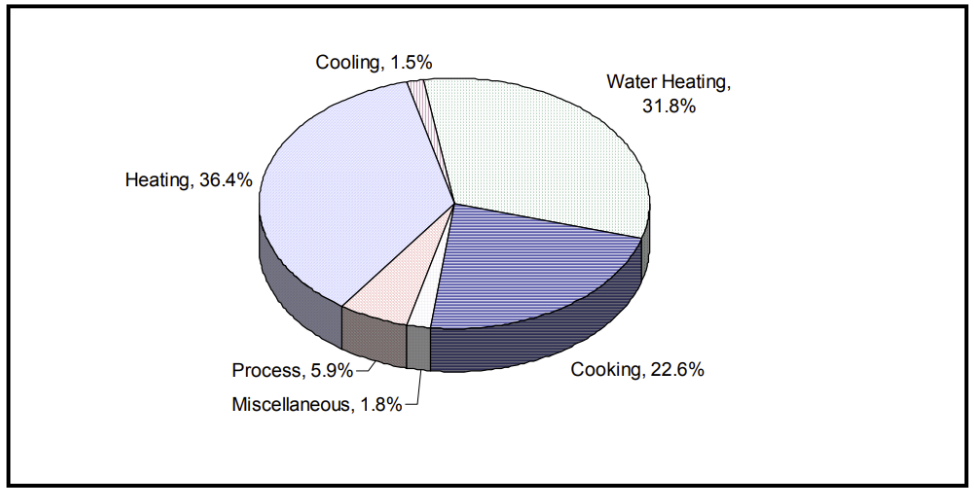


- Space Heating: 63%
- Water Heating: 65%
- Clothes Dryer: 36%
- Cooking – Oven: 42%
- Cooking – Range: 60%

Source: RASS 2019

Commercial Nat Gas End Use

Figure E-4: Natural Gas Usage by End Use

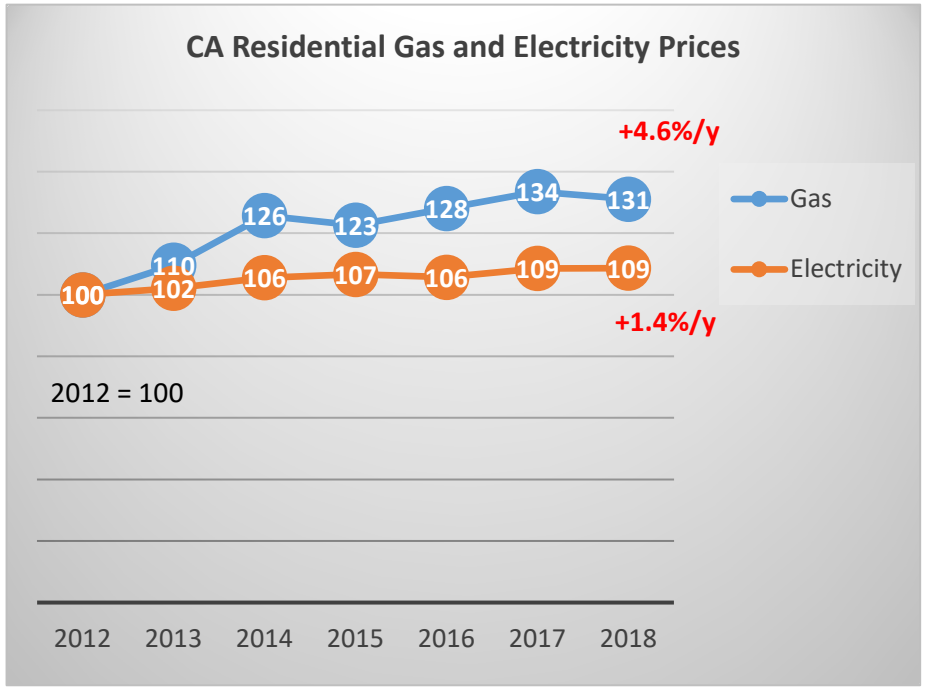


- Approximately 91% of commercial natural gas use is for water heating, space heating and cooking.

Source: CEUS 2006

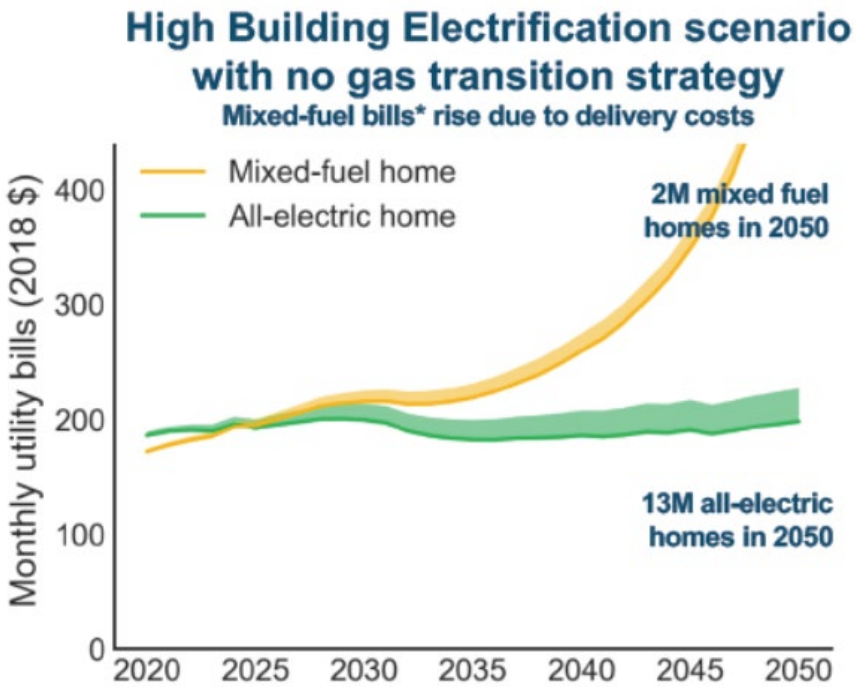
Cost of Natural Gas Climbing

CA residential natural gas prices increased 3x faster than electricity prices from 2012 to 2018



Source: EIA
https://www.eia.gov/dnav/ng/hist/n3010ca3m.htm
https://www.eia.gov/electricity/data/browser/#/topic/7?agg=2,0,1&geo=g&freq=M

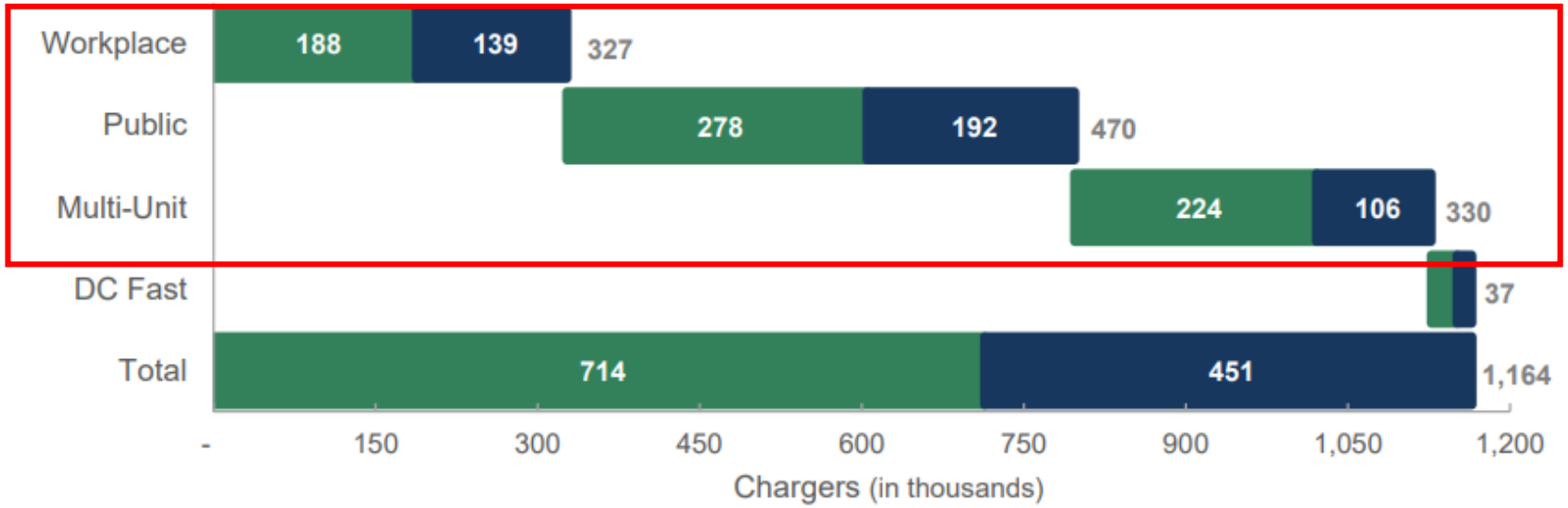
Trend expected to accelerate:



CEC Workshop June 6, 2019: Draft Results from E3 study on the Future of Natural Gas Distribution in California

Electric Vehicle Charging Demand

Figure 1: Projected 2030 Charger Counts to Support 5 Million and 8 Million Light-Duty Zero-Emission Vehicles



AB2127 Requirements by 2030

CARB Estimates for 2030

- 37% of 2020 California GHG emissions are from transportation
- 71,551 BEVs and PHEVs sold in LA and Ventura Counties in 2021
- 2022 sales expected to be around 100,000

Sources: CEC ZEV Sales, CARB 2020, CEC and NREL, AB2127 (2021)

Role of Reach Codes

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What Are Reach Codes?

- A reach code is a local building energy code that “reaches” beyond the state minimum requirements for energy use in building design and construction
- Typically require that a building install EV charging options, upgrade to electric water heating, space heating cooking and other appliances at point of sale, during renovations or in new construction
- Reach codes are a tool to help electrify buildings and transportation fuels

Types of Reach Codes

- New Construction
  - Most common
  - Definition: If either 50% of above-sill framing or 50% of foundation is replaced within 3 years
  - May include exceptions for commercial kitchens, high temp industrial processes
- Existing Building
  - A few passed in CA: Portola Valley, City of San Mateo, Palo Alto, Marin County
  - Triggered at point of sale or renovation
- EV Charging
  - EV Ready, EV Capable, EV Charging Stations

Established Movement

- More than ¼ of CA's population lives in a jurisdiction with an all-electric requirement for new construction
- 72 CA jurisdictions have an electrification ordinance
- 5% of new construction in CA was all electric in 2020-2022. Up from 1% in 2014-2019

Reach Codes Adopted by CPA Members

- Ojai: all-electric new construction
- Santa Monica: all-electric new construction + EV charging via local municipal code
- Ventura County: all-electric new construction
- Other non-CPA local jurisdictions: City of Los Angeles, Glendale, Pasadena

Source: [CA Energy Codes and Standards Map]

Benefits of Electrification Reach Codes

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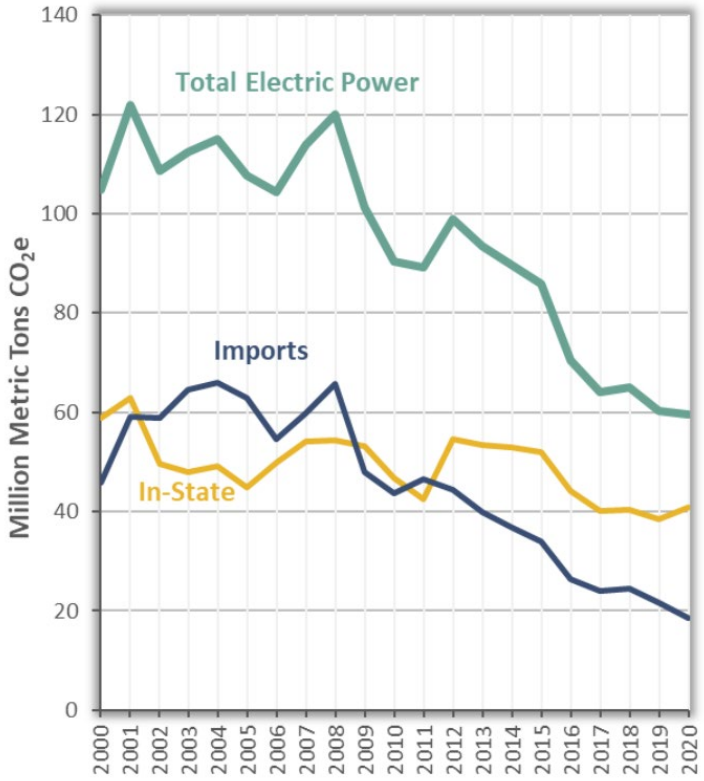
Why Electrification Reach Codes?

According to CEC, “a shift to electric end uses would need to be a major component of any plan” to reach 2045 climate goals

- Aligns with state climate neutrality goals for electricity sector and building stock
- Generates cost-effective impacts at a large scale
- Eliminates new gas infrastructure
- Increases EV adoption
- Most CPA members on 100% Green Power; Lean and Clean Power meet or surpass RPS
- Improves indoor air quality, lowers levels of NO, NOx, NO_2, formaldehyde, carbon monoxide
- Future federal funding from Inflation Reduction Act ($369 billion in clean energy and climate funding)

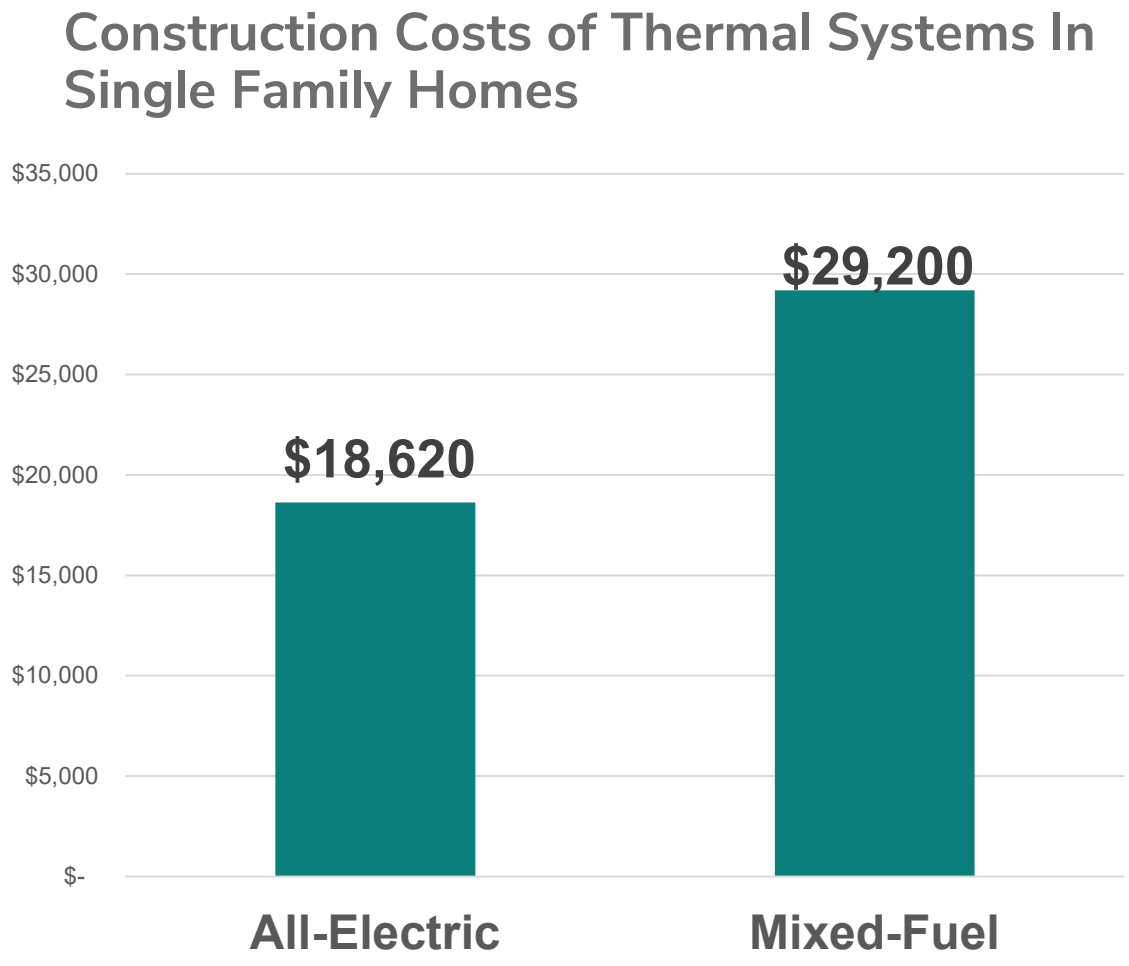
Figure 8. GHG Emissions from the Electricity Sector.



Sources: CARB 2022, CEC 2021b. RMI 2020

New All Electric Construction Costs Less

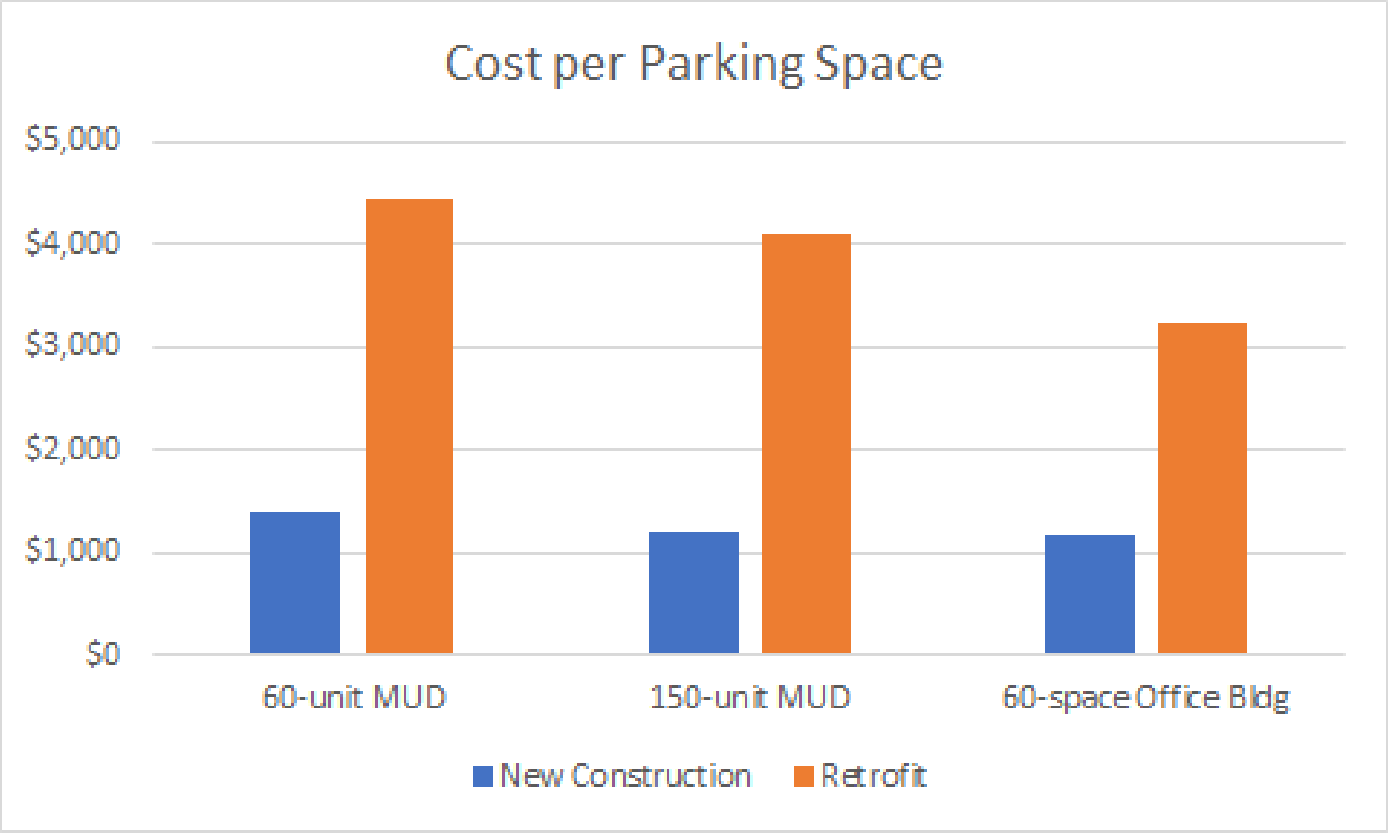
- All electric homes are less expensive to build
- Natural gas plumbing, heating and venting is not necessary
- Multiple independent analysis including California Energy Commission and University of California



Source: UC Carbon Neutral Buildings Cost Study. June 23, 2017

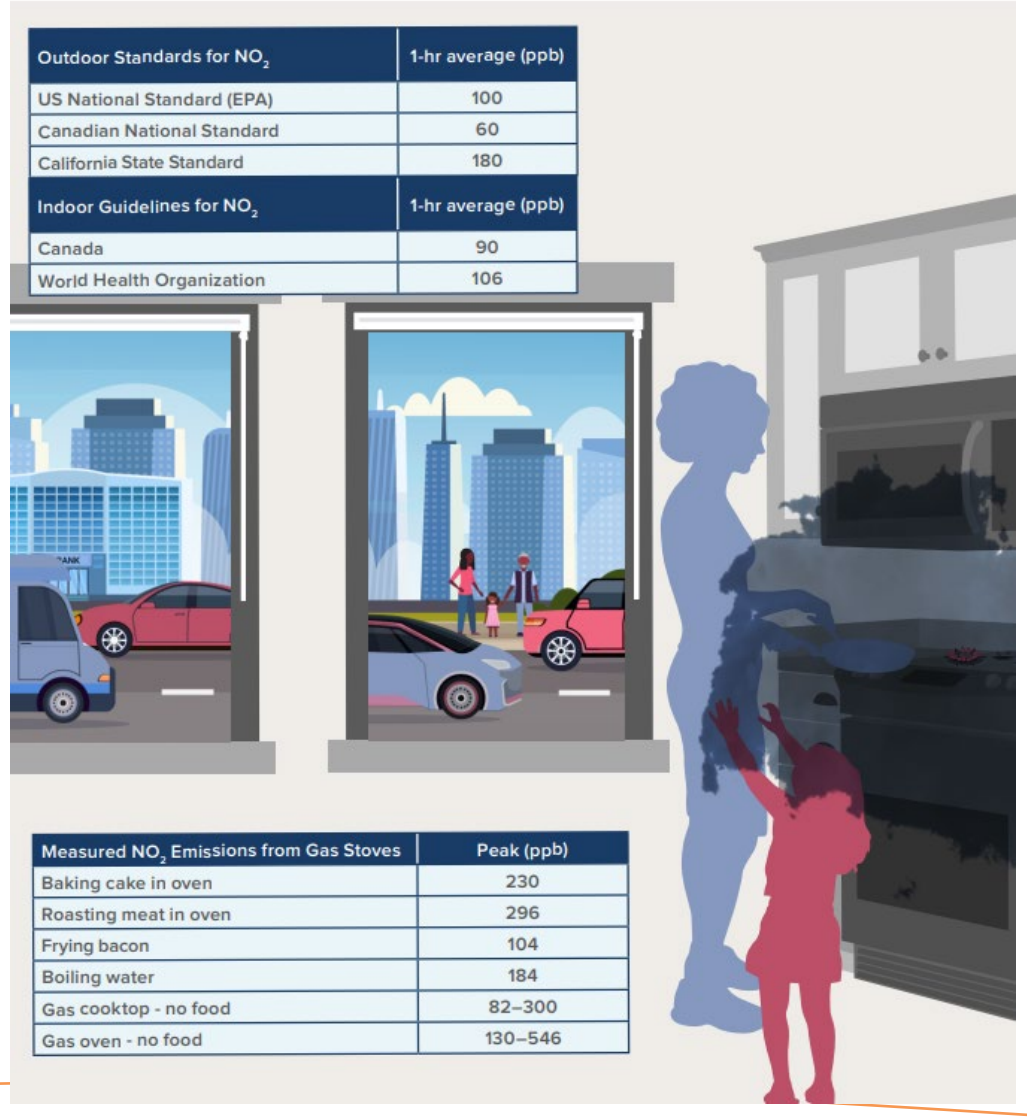
Lower EV Infrastructure Costs

- Lower costs for EV infrastructure in new construction
- Retrofit costs shown are “best case”
- Retrofit costs can be much higher
- Costs include wiring, switch gear, conduit, trenching, and secondary transformer



Sources: 1) Electric Vehicle Infrastructure Cost Analysis for PCE and SVCE 2) Pacific Gas and Electric Company EV Charge Network Quarterly Report, Q2 2020

Health Benefits



Outdoor Standards for NO_2	1-hr average (ppb)
US National Standard (EPA)	100
Canadian National Standard	60
California State Standard	180
Indoor Guidelines for NO_2	**1-hr average (ppb)**
Canada	90
World Health Organization	106

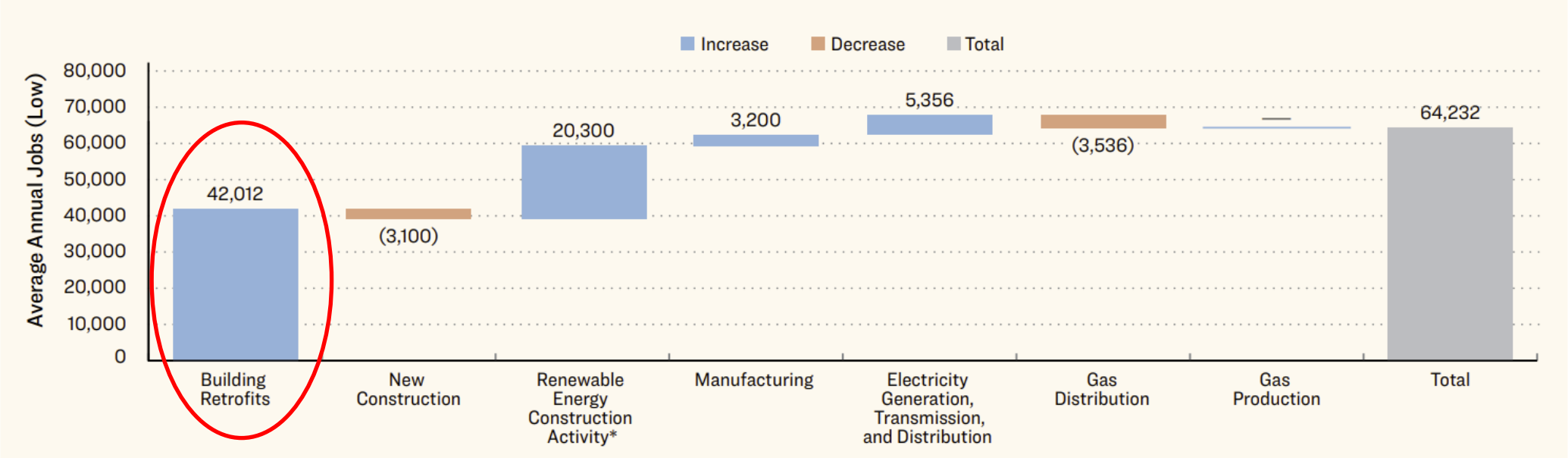
Measured NO_2 Emissions from Gas Stoves	Peak (ppb)
Baking cake in oven	230
Roasting meat in oven	296
Frying bacon	104
Boiling water	184
Gas cooktop - no food	82–300
Gas oven - no food	130–546

- Gas stoves in homes increase children's asthma risk by 42%
- Gas stoves can emit indoor nitrogen dioxide levels often exceeding indoor guidelines, causing respiratory effects
- Total electric living eliminates risk of carbon monoxide poisoning
- Induction ranges automatically turn off when not in - use, eliminating a leading cause of house fires

Sources: Forbes 2019, RMI 2020

Electrification Retrofits Create Jobs

ES Figure 2. Employment Impacts by Industry, Low and High Estimates (Average Annual)



UCLA 2019

Reach Code Survey Results

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Takeaways and Conclusions

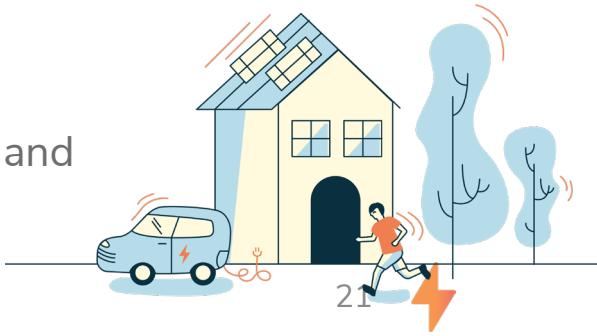
In March 2021, CPA reached out to all 32 member agencies via email and by phone to hear more about interest in passing reach codes desired support from CPA

Takeaways

- 24 respondents
- Most jurisdictions interested in informational workshops when asked
- 18 interested in either workshops and/or technical/adoption support for any reach code
- 15 jurisdictions have had conversations with SCE reach code contractors
- 11 member agencies interested in pursuing reach codes
- 10 jurisdictions mentioned some interest in existing building codes

Conclusions

- Use phased, multi-year approach
- Focus on new construction (including EV) reach codes for majority of member agencies
- Track and generate interest in existing building codes
- Utilize existing SCE support through their contractors. This increases stakeholders/partners and decreases CPA costs



Code Incentive Program Summary

CPA CLEAN POWER ALLIANCE

Building and EV Electrification Program Mission

Mission

- To develop advanced building electrification and electric vehicle charging reach codes in residential and commercial new construction and existing buildings in partnership with member municipalities

- To investigate opportunities for CPA to provide customers rebates, incentives and financing options to convert to electric appliances

Timeframe

- Initial 2-year program
- Future phases TBD

Building and EV Electrification Program Goals

Goals

- Codify the use of electric appliances and EV charger installation through building reach codes
- Educate local governments and contractors on the benefits of reach codes
- Educate community members and businesses on benefit of reach codes
- Leverage existing support from SCE and other regional organizations (BDC, USGBC, RENs)
- Achieve non-energy benefits (indoor air quality improvements)
- Determine future Electrification Program objectives and strategies

Targets

- Outreach and education for all 32 member agencies
- 6-10 member agencies bring new construction reach codes to council
- 2 member agencies bring existing building reach codes to council

Electrification Program Outline

Program Components

New Construction Reach Codes

- Available to **all 32 member agencies**
- Contractor support services for creating reach codes, stakeholder engagement, model code development, template reports, public outreach, building contractor education

Existing Building Reach Code Pilot Program

- Pilot with **two member agencies**
- Contractor support services for creating reach codes, stakeholder template reports, public outreach, building contractor education

Building and Vehicle Charging Electrification Research and Design

- Analysis for ways CPA can expand electrification offerings
- Will investigate **appliance rebates and incentives, retrofit financing, in lieu fees, EV charging rebates, regulatory mechanisms for EV infrastructure**

Incentives for Participation

- Tiered based on participation in New Construction and Existing Building Program level
- Designed to offset staff time
- Details in development

Code Incentive Program Overview: Phased Approach

Phase 1 FY 22/23

New Construction: Early Adopter Jurisdictions (Cohort 1)
- Develop tools and model codes
- Provide education, workshops and outreach for jurisdictions new to the concept
- Adoption support to participating members
- Public workshops for all interested cities
- Support jurisdictions already working to pass reach codes
- Tiered incentives to offset staff time

Existing Buildings Pilot
- Outreach to jurisdictions
- Informational workshop
- Model code development

Building and Vehicle Charging Electrification Research and Design

Phase 2 FY23/24

New Construction: Second Wave (Cohort 2) and Finalization
- Implementation and adoption support
- Public Outreach workshops
- Tiered incentives to offset staff time

Existing Buildings Pilot
- Adoption and implementation support
- Determine interest for expanded existing buildings support to more cities

Current Proposed Program

Phase 3 FY 24/25

Expanded Existing Buildings Program
- Expanded Electrification Program options to be evaluated
- Based on Research and Design element in Phase 1

Future Program TBD

Additional Financial Support

Participant Type	Award Value	Requirements	Expected Participants
New Construction: Early Adopter	**$2,500**	• Agree to consult and share experience if other member agencies have questions • Required attendance at workshops	**3-4**
New Construction: Prospective Adopter	**$12,500**	• Signed Letter of Intent • Submitted to Council	**6-10**
Existing Building Pilot	**$25,000**	Two Payments • Milestone 1: 50% paid upon direction from city council to pursue • Final Payment: 50% paid upon submittal to Council	**2**

Estimated Total Cost: $132,500 – $185,000

Reach Code Examples

CPA CLEAN POWER ALLIANCE

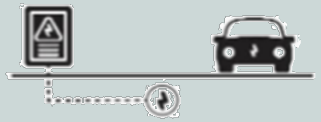
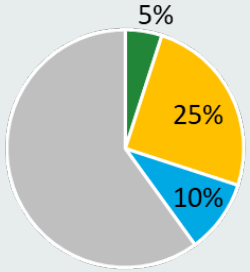
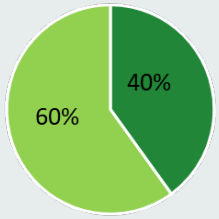
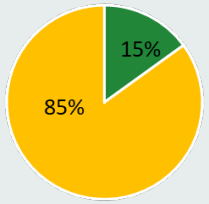
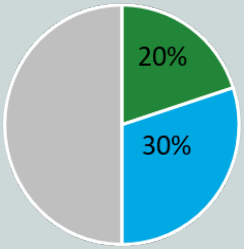
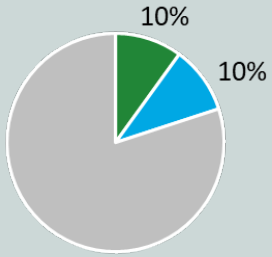
2022 Code and Reach Code Example

Building Type	2022 Energy Code	Potential Reach Code
New Construction		

Residential	• Heat pumps are prescriptive baseline
	• Pre-wiring required for gas appliances
	• Higher ventilation rate for gas stoves
	• Energy storage readiness
		<u>All electric construction required</u>
		
		Optional exceptions:
		• No prescriptive pathway for building system in CA energy code
		• Commercial kitchens, high-temperature industrial processes
		• Electric readiness required
		  • Pre-wiring
		  • Physical space

Commercial	• Heat pumps are prescriptive baseline (water and/or space heating) for most building types • Solar PV and battery storage prescriptive	

2022 CALGreen EV Charging

Building Type	2022 Mandatory CALGreen	Potential Reach Code
Single Family and Two-family Townhomes	(1) Level 2 EV Capable for one parking space per dwelling unit 	(2) EV Spaces total • 1 Level 2 EV Ready circuit • 1 Level 1 EV Ready circuit ELECTRIC VEHICLE OUTLET
Multi-Family	Percent of Parking Space 5% Level 2 EVCS 25% Level 2 EV Ready (low power) 10% Level 2 EV Capable 	**% of Dwelling Units with Parking** Spaces Low Power Option 40% Level 2 EVCS 60% L1 EV Ready  High Power Option 15% Level 2 EVCS 85% L2 EV Ready (low power) 
Non-Residential	5% Level 2 EVCS 15% Level 2 EV Capable 	Offices 20% Level 2 EVCS 30% Level 2 EV Capable All Other 10% Level 2 EVCS 10% Level 2 EV Capable  *Automatic Load Management Encouraged*

Next Steps

CPA CLEAN POWER ALLIANCE

Next Steps

January: Finalize contract for with vendor selected for contract negotiation via competitive solicitation

February 2nd: Request Board approval

February: Pending approval, execute contract and begin start-up activities

April: Return to CAC with vendor to detail program, provide tools & resources and seek support for outreach

Questions

Appendix: Additional Information

CPA CLEAN POWER ALLIANCE

Detail: Interest in New Construction and Existing Building Reach Codes

New Construction Reach Codes	
All-electric building codes	11
Electric-preferred building codes	9
Natural gas bans	3
Photovoltaic requirements on new buildings	6
Electric vehicle charging building codes	11
Any New Construction Code	13

Other New Construction Reach Codes
- Adopt an Electrification Readiness Reach Code per California Energy Commission (CEC) reach code requirements for all new buildings and accessory dwelling units which eliminates the piping of natural gas.
- Adopt an ordinance that allows granting of minor allowances for certain site development standards when there is no practical ways to design a project to be all electric.
- Adopting the most stringent components of the California Green Building Code.

Existing Building Code	
Natural gas prohibition	2
All electric major and minor remodels	6
All electric new appliances	5
Efficiency, renewable or electrification measures for additions and alterations	6
Require all gas lines to be capped	1
Encourage electrification alongside other energy efficiency measures	8
Photovoltaic requirements on major additions	5
Any Existing Code	10

Other Existing Building Reach Codes
- Adopt an EV Charging Retrofits in Existing Commercial and Multifamily Buildings reach code requiring major retrofits, with either a permit value over $200,000 or including modification of parking surfaces or electric panels, to meet CalGreen requirements for “EV Ready” charging spaces and infrastructure.
- Adopting the most stringent components of the California Green Building Code.

Implementation Vendor Scope of Services*

- Research Existing State and Local Codes
- Lead Development of Model Reach Codes
  - Regional and State Coordination
  - Stakeholder Engagement
  - Workshops
  - Lead Development of Model Reach Codes
- Package Building Electrification Cost – Effectiveness Study and Develop EV Cost-Benefit Analysis
- Identify Tools and Processes for Adoption and Implementation
  - Building dept training
  - Permit, inspection process streamlining
  - Educating builder community
  - Other tools as needed ….
- Public Workshops
  - Engage residents, contractors and other interested parties
- Technical Assistance for Code Adoption
  - Model codes, model staff reports
- Technical Assistance for Code Implementation
  - Model submissions to CEC

*pending contract negotiations

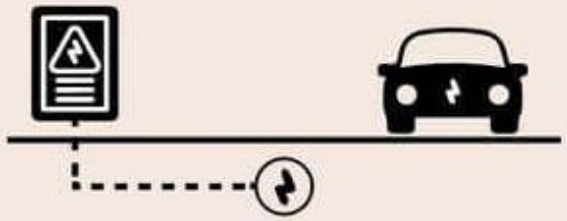
EV Charging Definitions

1. EV-Capable

Install electrical panel capacity with a dedicated branch circuit and a continuous raceway from the panel to the future EV parking spot.

Aspen, CO: 3% of parking is EV-Capable (IBC)

Atlanta, GA: 20% is EV-Capable (Ordinance)



2. EVSE-Ready Outlet

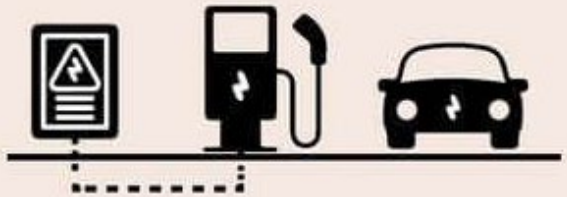
Install electrical panel capacity and raceway with conduit to terminate in a junction box or 240-volt charging outlet (typical clothing dryer outlet).

Boulder, CO: 10% of parking is EV-Ready Outlet

3. EVSE-Installed

Install a minimum number of Level 2 EV charging stations.

Palo Alto, CA: 5-10% of parking is EV-Installed



Source: SWEEP

Federal Policy: Inflation Reduction Act

Inflation Reduction Act includes $369 billion in clean energy & climate.

1. **Solar**
   - Extension of Investment Tax Credit (ITC) – 30% with prevailing wage, storage added
   - Direct pay option allows government agencies to secure ITC directly

2. **Electric Vehicles**
   - Continuation of $7,500 tax credit for new vehicles
     - Vehicle cost up to $55k for cars and $80k for SUVs and trucks, lifting the manufacturer's cap, families earning under $300k/yr
   - $4,000 tax credit for used electric vehicle
     - Cost up to $25k, families earning under $150k/yr

3. **Buildings**
   - $4.5B for up to $14,000 in rebates for electric appliances
     - up to 50% of costs for moderate-income households and 100% for low-income households.
     - $8,000 for heat pump HVAC, $1,750 for water heaters, $840 induction cooktop, $840 heat pump dryer, up to $9,100 for panels, wiring, insulation
   - Tax credits up to $2,000 for heat pumps
   - Energy efficiency up to 50% whole home retrofit or >80% for low/moderate income

Can the Grid Handle the Load Increase?

1. Reliability is a concern only during summer peak cooling times. Increases in cooling demand are **primarily due to climate change** increasing summer temperatures.

2. California Energy Commission's AB3232 analysis indicates that *aggressive* electrification will result in **20 percent additional summer peak load** through 2030. Winter load expected match summer peak load.*

3. All-electric technologies can **draw power flexibly**. Electric vehicles can charge during off-peak periods, water heating tanks can increase temperature ahead of peak periods, thermostat setbacks can reduce space conditioning demand, and several other approaches will avoid power outages.

Source: 1) AB3232 Decarbonization Assessment 2021

Will the Grid Be Reliable?

1. CEC has determined that **electrification is the lower cost, lower risk approach** to decarbonization, compared to all alternatives.

2. CA-ISO has performed a 20-year study and has recommended **over $30B in transmission investments** to account for increased renewables and decommissioned gas power plants

3. **Utility-scale battery power output increased 27-fold** during heatwaves from August 2020 to August 2022. Having diversity in electrical power sources has already improved grid performance.

4. The electricity suppliers have a **service obligation** to meet your needs.

5. The **elimination of state gas subsidies** will free up funding for grid hardening efforts.

Sources: 1) CA Energy Commission 2018 2) CA-ISO 3) LA Times 4) 2) CPUC R1901011 2022