



## SEEC Virtual Forum: Webinar #3

June 18, 2020 | 10:00 AM – 11:00 AM PST

# Maintaining Local Momentum toward Climate Goals: Reach Code Collaboration



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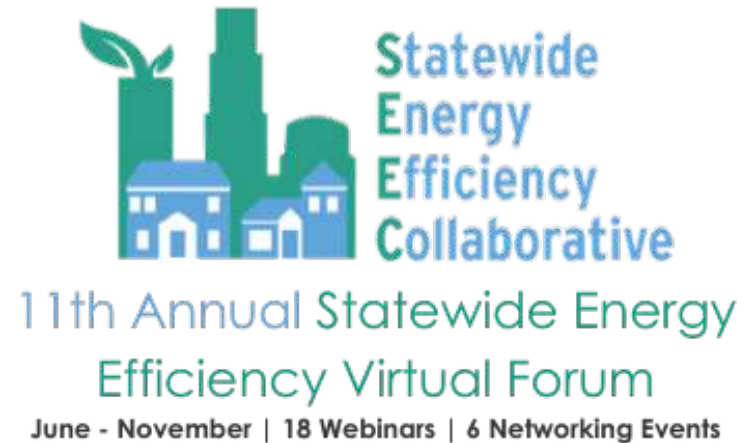


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# Upcoming Events

Learn more and register at:  
[californiaseec.org/2020-forum/](https://californiaseec.org/2020-forum/)



## 6/23 – Networking Activity

Speed Networking

## 6/30 – Webinar #4

Community & Climate Engagement During COVID-19

## 7/08 – Webinar #5

Extreme Heat Resilience Among Disadvantaged Communities in Stockton


## 7/16 – Webinar #6

Identifying, Prioritizing, Financing Projects



# SEEC Bingo

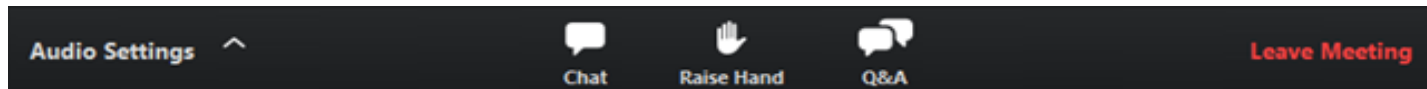
*Connect, Network, and Win a Sustainability Prize!*

<p>OWNS AN ELECTRIC VEHICLE</p> <p>NAME: _____</p>	<p>IS A CCA CUSTOMER</p> <p>NAME: _____</p>	<p>HOUSEHOLD HAS MOSTLY LED BULBS INSTALLED</p> <p>NAME: _____</p>	<p>HAS COOKED FOOD IN A SOLAR OVEN</p> <p>NAME: _____</p>	<p>WORKS IN THE SIERRA NEVADA REGION</p> <p>NAME: _____</p>
<p>HAS SOLAR PANELS ON THEIR PROPERTY</p> <p>NAME: _____</p>	<p>HAS AN EV CHARGER AT THEIR HOME OR APARTMENT COMPLEX</p> <p>NAME: _____</p>	<p>HAS AT LEAST ONE ENERGY STAR® APPLIANCE AT HOME</p> <p>NAME: _____</p>	<p>IS AN ELECTED OFFICIAL</p> <p>NAME: _____</p>	<p>WORKED IN THE ENERGY FIELD IN A STATE BESIDES CALIFORNIA</p> <p>NAME: _____</p>
<p>WORKS FOR OR HAS WORKED FOR THE CEC</p> <p>NAME: _____</p>	<p>TAKES PUBLIC TRANSIT TO THEIR WORK OFFICE</p> <p>NAME: _____</p>		<p>PLAYS A MUSICAL INSTRUMENT</p> <p>NAME: _____</p>	<p>HAS THE SAME JOB TITLE THAT YOU HAVE</p> <p>NAME: _____</p>
<p>HAS DROUGHT-RESISTANT LANDSCAPING</p> <p>NAME: _____</p>	<p>BIKES OR WALKS TO THEIR WORK OFFICE</p> <p>NAME: _____</p>	<p>IS A VEGETARIAN OR VEGAN</p> <p>NAME: _____</p>	<p>LIVES OR WORKS IN A ZERO NET ENERGY (ZNE) BUILDING</p> <p>NAME: _____</p>	<p>WORKS FOR A COMMUNITY BASED ORGANIZATION</p> <p>NAME: _____</p>
<p>WORKS IN THE SAN JOAQUIN VALLEY REGION</p> <p>NAME: _____</p>	<p>COMPLETED AN ENERGY AUDIT</p> <p>NAME: _____</p>	<p>HAS RUN FOR OFFICE</p> <p>NAME: _____</p>	<p>HAS SUCCESSFULLY CREATED SOIL FROM COMPOST</p> <p>NAME: _____</p>	<p>HAS BACKYARD CHICKENS</p> <p>NAME: _____</p>



## Q&A

- Submit questions for panelists through the Q&A module at any point during the webinar.
- Upvote questions that you are interested in hearing responses to.



## Chat

- Engage in a dialogue with your peers – share resources, case studies, and best practices
- Reach out to LGC staff if you encounter technical issues or have questions about the SEEC Forum.





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# SEEC Forum: Maintaining Local Momentum toward Climate Goals: Reach Code Collaboration

Date: June 18, 2020

**Presenters: Chris Kuch, Moderator**

**Evon Ballash, Panelist**

**Misti Bruceri, Panelist**

**Cory Downs, Panelist**

**Danuta Drozdowicz, Panelist**

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# Today's Presentation

**Christopher Kuch**  
**Reach Codes Program Manager**  
**Southern California Edison**



**Danuta Drozdowicz**  
**Energy Specialist**  
**Efficiency Division**  
**California Energy Commission**



**Evon Ballash**  
**Assistant Chief Building**  
**Official**  
**City of Palo Alto**



**Cory Downs**  
**Conservation Specialist**  
**City of Chula Vista**



**Misti Bruceri**  
**Principal**  
**Misti Bruceri & Associates**



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# **SEEC Forum: Maintaining Local Momentum toward Climate Goals: Reach Code Collaboration**

## **Overview of Reach Code Process**

**Panelist: Danuta Drozdowicz**

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# California Energy Commission

Danuta Drozdowicz, Energy Specialist 1, Efficiency Division Building Standards Office

June 18, 2020



# Role of the CEC

Public Resources Code § 25402.1(h)(2) states that enforcement of a local building efficiency ordinance can occur when:

‘ . . . the city or county files the basis of its determination that the standards are cost effective with the commission and the commission finds that the standards will require the diminution of energy consumption levels permitted by the rules and regulations adopted pursuant to those sections.’

This means that CEC approval to enforce:

1. Is needed when local ordinances have more stringent efficiency requirements than the current version of the Energy Code, and
2. Provides a jurisdiction with the ability to enforce their local ordinance(s) until State standards change (i.e., one code cycle).



# When should you contact the CEC?

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- Anytime there are questions about an application or the application process – we can advise on everything except ordinance content.
- When you are preparing an application for submittal – there is no requirement to contact the CEC before you are ready to submit, but we encourage you to so that we can answer any questions and prepare to process your application as quickly and efficiently as possible.



# What is required in an application?

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- The proposed energy standards – the complete text of the adopted, signed ordinance.
- The local government agency's energy-savings and cost-effectiveness findings, including supporting analysis.
- A statement or finding by the local governmental agency that the local energy standards will require buildings to be designed to consume no more energy than permitted by the Energy Code.
- Any findings, determinations, declarations, or reports, including any negative declaration or environmental impact report, required pursuant to the California Environmental Quality Act – typically a notice of CEQA exemption.



# Nice to have, but not required:

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- A cover letter addressed to the Executive Director of the CEC.
- Staff reports other than those providing supporting analysis for local savings and cost findings.
- Copies of public comments received locally.

Staff reviews and processes the application, then makes a recommendation to the Executive Director.

The Executive Director makes a recommendation to the CEC Chair and Commissioners.



# 2019 Local Energy Ordinance Process

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## Once the Application is received:

- Staff reviews for completeness. If not complete, staff requests any missing material.
- If complete, staff sends a notice to management requesting permission to post the application to the CEC docket. It can take a week or more before the application is posted.
- Word and excel documents in the application are converted to PDF format and scanned for accessibility prior to posting.
- Applications are posted to the CEC docket for the required Public Comment Period – typically 15 days.



# 2019 Local Energy Ordinance Process

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## **Behind the scenes:**

- Staff prepares and submits a summary of the ordinance and a Memorandum for management signature.
- After management has signed and the public comment period has closed, staff submits a request to the Secretariat to include the application on the Business Meeting agenda. Requests must be received three weeks in advance of a Business Meeting to be included.

**An ordinance is enforceable as soon as the CEC has voted to approve it.**



# In Conclusion

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- Reach codes are first and foremost local ordinances.
- The California Energy Commission has an important but limited legal role as prescribed by statute: To approve ordinance applications that meet statutory requirements so that they are enforceable during the time the current energy code is effective.



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# **SEEC Forum: Maintaining Local Momentum toward Climate Goals: Reach Code Collaboration**

## **City of Palo Alto Energy Reach Code**

**Panelist: Evon Ballash**

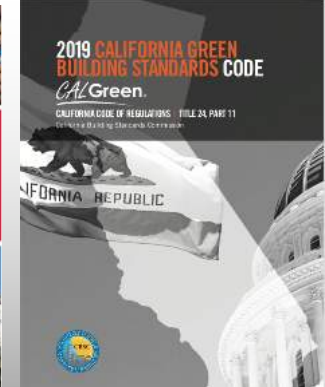
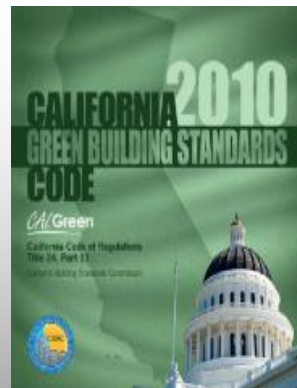
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# OVERVIEW: *CAL*Green

## Green Building and Energy Ordinance



- **2008 CALGreen:** First established as voluntary
  - Palo Alto adopted as mandatory
- **2010:** Effective January 1<sup>st</sup>, 2011
  - Updated July 1<sup>st</sup>, 2012 to include Alterations & Additions
- **2013:** Effective January 1<sup>st</sup>, 2014 & updated June 22<sup>nd</sup>, 2015
- **2016:** Effective January 1<sup>st</sup>, 2017
- **2019:** Effective January 1<sup>st</sup>, 2020



# Community Outreach



- Public vetting effort to identify appropriate direction
- Regular meetings to develop the ordinance criteria-Technical Advisory Committee (TAC)
- Annual retreat

# Green Building Summit: A Sustainable Future for Palo Alto Buildings 2020 and Beyond



# City of Palo Alto

## Sustainability and Climate Action Plan Goal: 80% by 2030

### 7 Key Focus Areas



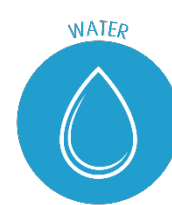
**Energy**



**Mobility**



**Electric Vehicles**



**Water**



**Climate Adaptation  
& Sea Level Rise**



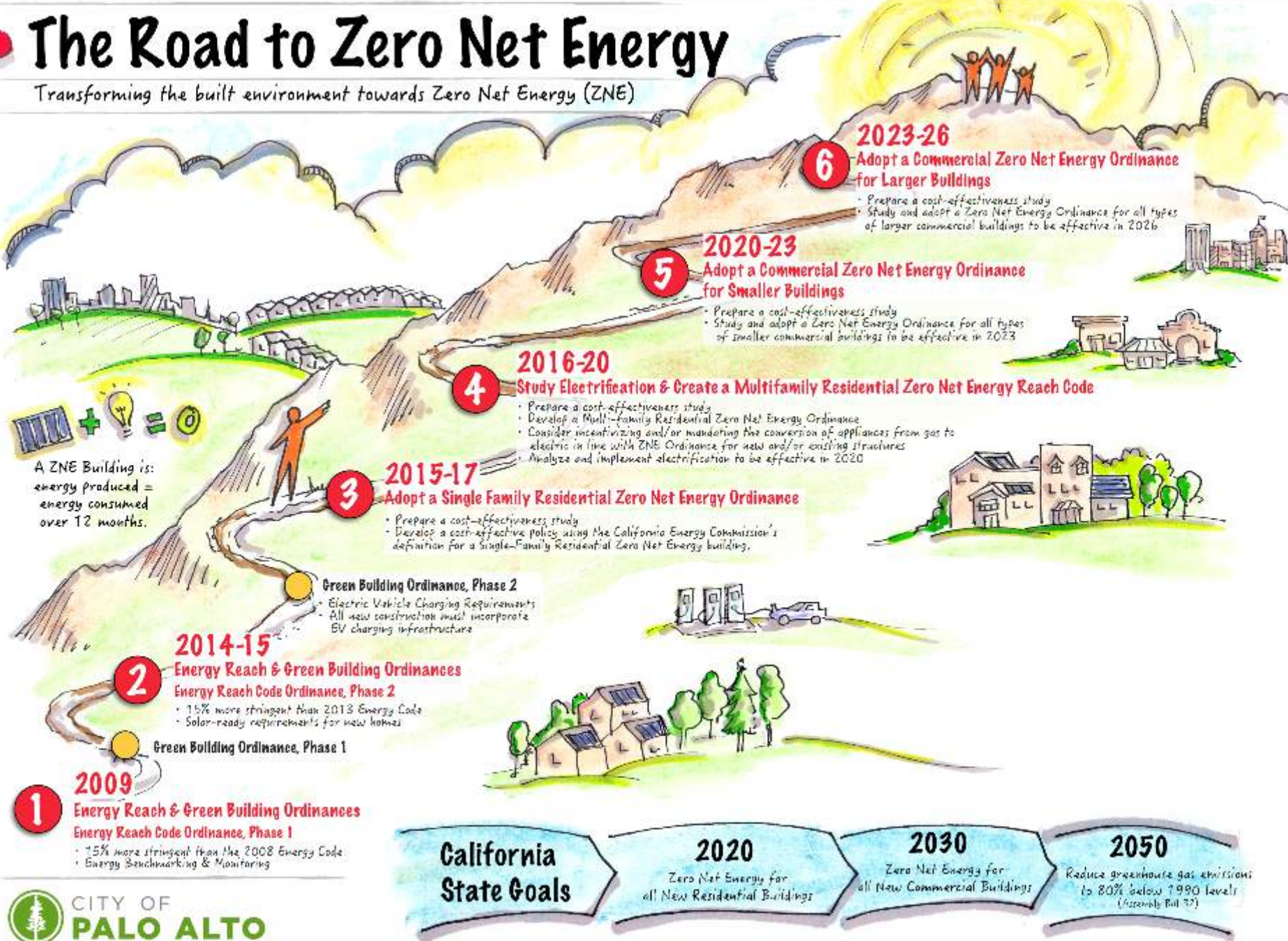
**Natural  
Environment**



**Zero Waste**

# The Road to Zero Net Energy

Transforming the built environment towards Zero Net Energy (ZNE)



CITY OF  
**PALO ALTO**

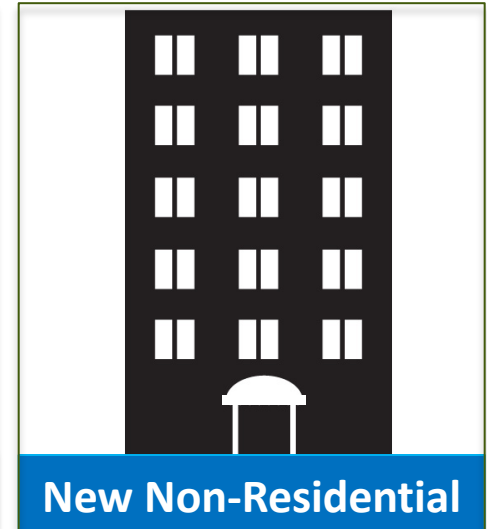
Development Services 2015

# 2019 Energy Reach Code

**New Construction!**



## Reach Code Required for:



# 2019 Energy Reach Code

## New Low-Rise Single-, Two-, & Multi-Family

**REQUIRED:** All-Electric

*Effective: April 1, 2020*

*(2019 CEC, Title 24, Part 6)*



**Energy Reach Code  
Ordinance**

Residential

## 2019 New Non-Residential, High-rise Residential, & Hotel/Motel Energy Reach Code Ordinance

Pathways	Requirement
All-Electric	No increased energy efficiencies. (16.17.080)
Mixed-Fuel	<p>Comply with TDV Compliance Margins:</p> <ul style="list-style-type: none"> <li>• Office Building = 12%;</li> <li>• Retail Store = 12%;</li> <li>• Hotel/motel and High-rise residential = 5%;</li> <li>• Industrial/Manufacturing = 0%;</li> <li>• All other Nonresidential occupancies = 5%.</li> </ul> <p>(16.17.080, Table 140.1-A)</p>

Effective Jan 1, 2020

# 2019 Energy Reach Code

## New Commercial Buildings and Accessory Dwelling Units

**PHASE II: Commercial & ADUs**

**REQUIRED:** All-Electric Design

*Target Date: June 1, 2021*



# 2016 Residential Energy Reach Code Ordinance

	New Single-Family Residential	New Multi-family Residential
No PV	10% More efficient than Base Code (16.17.050.a.1)	10% More efficient than Base Code (16.17.050.b.1)
With PV	20% More efficient than Base Code <sup>1</sup> (16.17.050.a.2)	12% More efficient than Base Code <sup>1</sup> (16.17.050.b.2)

<sup>1</sup> “PV credit” may be applied to meeting the minimum T24 Energy Code. Therefore, a higher percentage reduction is required for single-family and multi-family Option 2 to normalize the requirements compared to single-family and multi-family Option 1.

# 2016 Commercial Energy Reach Code Ordinance Improvements

	New Commercial
No PV	10% More efficient than Base Code (16.17.050.b.1)
With PV	Comply with minimum Base Code + Install a 5 kW or larger PV system <sup>1</sup> (16.17.050.c.2)

<sup>1</sup> Less than 5 kW PV system is not considered.



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# **SEEC Forum: Maintaining Local Momentum toward Climate Goals: Reach Code Collaboration**

## **City of Chula Vista Energy Reach Code**

**Panelist: Cory Downs**

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# Chula Vista Reach Codes

SEEC

6/18/20



**Department of Economic  
Development**

**Office of Sustainability  
Conservation Section**

# Past/Present Reach Codes

T24 Energy efficiency reach codes

- 2016 code - LED outdoor lighting
- 2008 code – 14% to 20% above code

Solar PV and Hot Water pre-wiring  
& plumbing

- Solar Hot Water pre plumbing –  
removed in 2019

Laundry-to-Landscape pre-  
plumbing



Under development:

Residential Retrofit  
Requirement

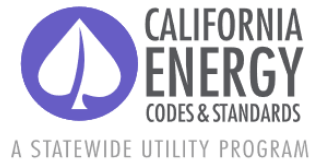
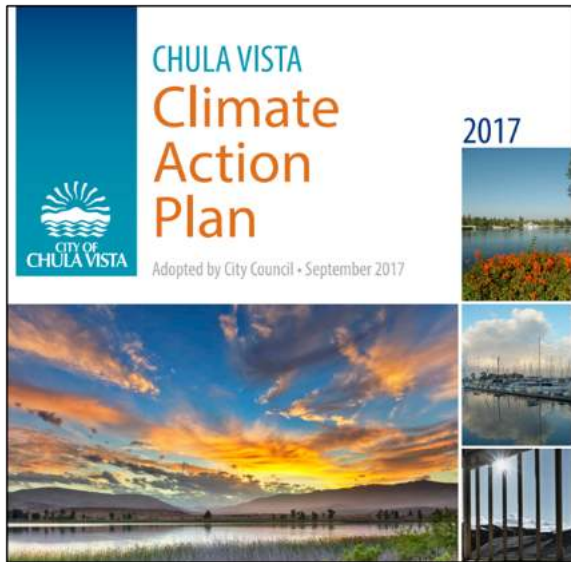
Commercial Benchmarking

Past

Present

# Policy Development

## Climate Change Working Group



California Building Energy Efficiency Standards Title 24, Part 6  
Local Energy Efficiency Ordinances

### Existing Building Efficiency Upgrade Cost-Effectiveness Study

#### Statewide Studies:

- Reduce the need for local studies
- Ready to go
- Can focus ordinance

# Local Options

Exemptions for actions already taken:

- Performance path
- Already completed
- Home Energy Score
- PV system



# Local Options

Exemptions for limited ability to take actions:

Limited Ability:


- Definitions matter
- Set project value threshold
- Low income household
- Allow options
- HOA authority
- Medical necessary
- Accessory Dwelling Units (ADU)



# Policy Development

Clear communications

- Promote conversation to encourage voluntary actions
- Website for technical details
- Checklist for community and staff

	<b>Storm Water Requirements Applicability Checklist for All Permit Applications</b>	<b>Intake Form</b>
		March 2019 Update
<b>Project Information</b>		
Project Address:		Project Application #
Project Name:		APN(s)
Brief Description of Work Proposed:		
<b>The project is (select one):</b>		
<input type="checkbox"/> New Development      Total Impervious Area _____ ft <sup>2</sup>		
<input type="checkbox"/> Redevelopment      Total new and/or replaced Impervious Area _____ ft <sup>2</sup> <small>(Redevelopment is the creation and/or replacement of impervious surface on an already developed site).</small>		
<input type="checkbox"/> Others _____		
Name of Person Completing this Form: _____		
Role: <input type="checkbox"/> Property Owner <input type="checkbox"/> Contractor <input type="checkbox"/> Architect <input type="checkbox"/> Engineer <input type="checkbox"/> Other _____		



# Impact of Covid-19

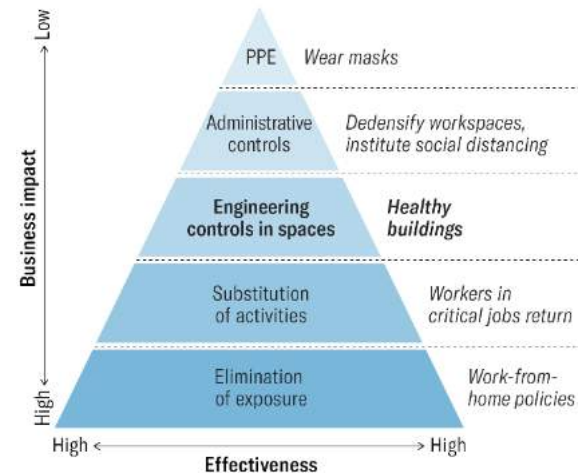


Can help jurisdictions improve:

- Equity
- Resilience
- Health

## Minimizing Risk in the Workplace

Using a hierarchy of controls as a response framework, companies can take a range of actions — weighing the effectiveness and financial impact of each — to combat Covid-19 in their buildings.



Note: "PPE" stands for personal protective equipment.  
Source: Joseph Allen and John Macomber



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## **Resources Available to Local Jurisdictions**

**Panelist: Misti Bruceri**

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# REACHING BEYOND

## REACH CODES RESOURCES

Collaborating to Amplify Impacts

**Misti Bruceri**  
(on behalf of the  
Statewide Reach Codes team)  
June 18, 2020



# Objective: Facilitate the adoption of reach codes

- Prepare cost-effectiveness analyses
- Develop Model Language
- Staff resources
- Workshops, presentations
- Newsletters
- Frontrunners





## BUILDING EFFICIENCY/RENEWABLES

Whole Building  
Equipment-Specific



## ELECTRIC READY

Pre-Wiring  
Panel Upgrade  
EV-Readiness  
EV Charging



## ENERGY PLUS WATER

Hot Water  
Distribution  
Indoor Water  
Outdoor Water



## INFORMATION DISCLOSURE

Audits  
Benchmarking



## PROCESS LOADS

Commercial Kitchens  
Elevators  
Escalators  
Controlled Environment  
Horticulture



### FILTER OPTIONS: ⓘ

☐ Whole Building Efficiency

☐ Whole Building Electrification

☒ Solar Photovoltaic (PV) Systems

☐ Individual Measures

☐ Rental Properties

### REQUIREMENT



#### Photovoltaic (PV) System on major high-rise multifamily or nonresidential projects: Small minimum system capacity

Examples include: Minimum capacity: 3 kW if < 10,000 sf and 5 kW if > 10,000 sf.  
Minimum capacity: fill required solar zone on rooftop (~15% of area)



### PROS

- Stand-alone or combine with energy efficiency measures for greater savings
- Small minimum system size allows flexibility to size appropriately for project
- PV is cost-effective under most major project scenarios
- Tax Credit

### CONS

- Requires external documents and/or calculations
- If install minimum only, offsets small percentage of total usage

### ADOPTER CITY



Berkeley, Brisbane, Hayward,  
Menlo Park, Milpitas, Pacifica,  
Richmond, San Luis Obispo, San Mateo

### APPLICATION PACKAGE

- 2019 Res NC Cost Effectiveness Study
- 2019 NR NC Cost Effectiveness Report
- 2019 Sample CEC Cover Letters

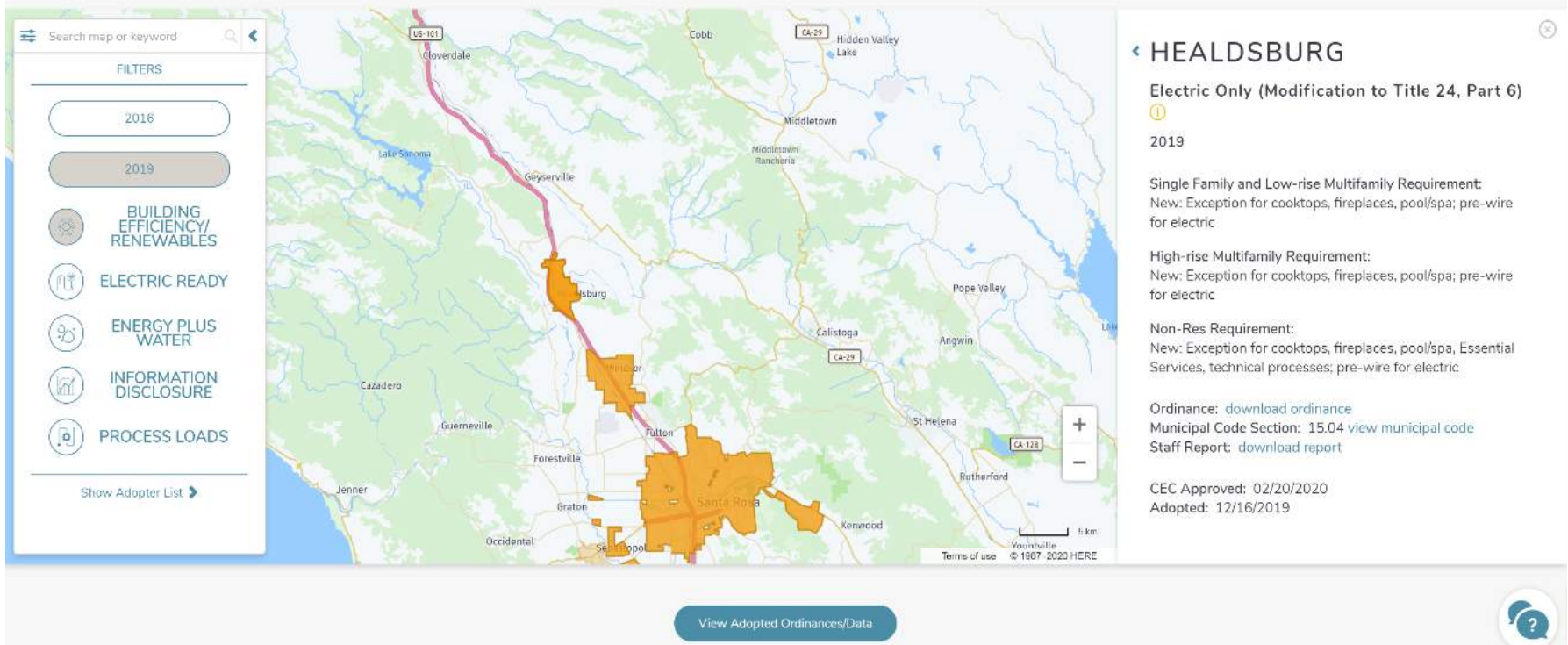
### INTERNAL STAFF RESOURCES

# Reach Codes Paths & Options

# Local Ordinance Map

## WHERE ARE LOCAL GOVERNMENTS ADOPTING REACH CODES?

The interactive map below displays where, when, and how other cities in California have adopted reach codes.



# Additional Resources



## 2019 Cost-effectiveness Reports

2019 Residential New Construction

2019 Nonresidential New Construction

2019 Residential Retrofits

2019 Passive House Equivalency - Low-rise Multifamily

2019 Low-Rise Residential Additions (Santa Monica)

2019 Electric Pool Heating (Santa Monica)

Energy Plus Water

Download resources specific to the ordinance structure (model language, staff reports, checklists) from the [Reach Codes Paths](#) page.

## Additional Reports and Analyses

## Climate Action Planning

## Energy Efficiency Incentive Programs

## 2019 General Resources

## Local Government Services

## State Agencies

## Other Resources

- [Energy Code Ace](#)
- [Local Ordinance Map](#)
- [BayREN Municipal ZNE Resources](#)
- [2019 CEQA Statute and Guidelines](#)
- [New Buildings Institute \(NBI\) Zero Energy Communications Toolkit](#)
- [Photovoltaic Systems](#)
  - [California Consumer Solar Protection Guide, 2019](#)
  - [Solar Access \(CA Solar Rights Act\)](#)
  - [CA Office of Planning and Research](#)
    - [CA Solar Permitting Guidebook, 4th Edition, Winter, 2019](#)
  - [SolarResilient - Solar PV and Battery Storage sizing tool](#)

# REACHING BEYOND

## Building California's Future.

Collaborating with cities, counties and stakeholders to drive reach code development and adoption for long-term climate and energy efficiency benefits.

Reach Co

In 2015, the  
Plan update,  
Plan (CAP),  
greenhouse st



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[@ca\\_codes](https://twitter.com/ca_codes)



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## Update on Reach Codes

Panelist: Danuta Drozdowicz

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# Summary of Local Ordinances

2019 CA Energy Code Local Ordinances Summary	Approved Through March 2020	Approved April Business Meeting	June Business Meeting	Total
Local Ordinances Approved Or Pending	16	7	2	25
All-Electric	5	2	1	8
Electric-Preferred	10	4	1	15
CalGreen Tier 1	2	2	0	4
CalGreen Tier 2	0	0	0	0
Additional PV	11	3	1	15
EV Infrastructure or Charging	3	6	1	10
Low-rise Residential Only	3	0	0	3
High-rise Residential and/or Non-residential	1	0	0	1
Provisions for both Residential and Non-residential	12	7	2	21
2016 Local Ordinances Approved				20
2013 Local Ordinances Approved				8
2008 Local Ordinances Approved (includes previous years)				53
Grand Total (includes 2019 to date):				106



# Variety in Reach Codes

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- Green roofs
- Solar thermal systems
- Battery storage or prewire for battery storage
- Low carbon concrete
- LEED or Green Point Rated certified
- Cool roofs
- Retrofits on the horizon



# 2019 Energy Code Cycle

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**Berkeley  
Brisbane  
Cupertino  
Davis  
Hayward  
Healdsburg  
Los Angeles County  
Los Gatos  
Marin County**

**Menlo Park  
Mill Valley  
Milpitas  
Mountain View  
Pacifica  
Palo Alto  
Richmond  
San Francisco**

**San Jose  
San Mateo  
San Rafael  
Santa Monica  
Santa Rosa  
Saratoga  
West Hollywood  
Windsor**

# Questions?

# Panelists

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