

# 2019 Local Amendments (Reach Codes)

## Energy Code and Electric Vehicle Infrastructure

Sponsored by:

Silicon Valley Clean Energy (SVCE)

Peninsula Clean Energy (PCE)

County of San Mateo, Office of Sustainability (OOS)



# Short List of Related Programs

	SVCE	PCE
Buildings	Reach Code Support	Reach Code Support
	All-Electric Building Showcase Grants	Single Family Home Electrification Pilot
	'FutureFit' Heat Pump Water Heater Incentive	Low-income Home Energy Upgrades Pilot
Transportation	EV Infrastructure Strategy & Plan	EV Low-income Incentive
	EV Fast Charge Depots	EV Infrastructure Incentive

# Background

- 2016 Building Code generally more supportive of mixed fuel (natural gas + electricity) buildings
  - All-electric buildings could not count the savings of avoiding a natural gas hookup towards overall cost-effectiveness
  - Cost effectiveness is always compared to gas even for all-electric buildings
  - Developers most frequently build mixed fuel buildings in spite of benefits of all-electric construction
- EV infrastructure requirements in the 2016 code reflect an outdated and insufficient EV uptake rate

# Why Adopt a Reach Code?

- Cities have climate (emission reduction) goals
- All-electric buildings are more cost effective, safer, healthier
- Enable much greater EV adoption rates
- Adopted 2019 Energy code addresses some imbalances but may not sway builders to select all-electric pathway
  - Solar required. Electric heat pump water heater pre-wiring required for natural gas water heaters.
  - EV Charger density requirements likely insufficient for current local uptake
  - <https://www.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf>
- Fiscal prudence – more cost effective to address at new construction

# Objective

*Adopt local amendments to the CA building code to promote all-electric building and electric vehicle charging infrastructure for new and modified buildings for 2020 implementation.*

Local amendments could include some or all of the following:

## A) Performance

- Buildings using natural gas must exceed Title 24 by X%
- Buildings using electricity only must meet Title 24
- Similar to what Marin and Palo Alto enacted for 2016)

## B) Prescriptive

- Buildings must include, for example, EV charging infrastructure or charger, pre-wiring for battery storage or for a future electric furnace

# Local Amendments

These communities have all enacted local amendments exceeding Title 24 for the 2016 Code Cycle

Marin and Palo Alto adopted reach codes supportive of All-Electric building design

Local Ordinances	Date Approved	Type
Alameda County	July 11, 2018	Solar PV
Brisbane, City of	July 12, 2017	Cool Roof, Solar PV
Chula Vista, City of	July 11, 2018	Outdoor Lighting
Del Mar, City of	September 21, 2018	Efficiency
Davis, City of	December 13, 2017	Efficiency, Solar PV
Fremont, City of	July 12, 2017	Solar PV
Healdsburg, City of	April 27, 2017	Lighting
Healdsburg, City of	July 12, 2017	Efficiency
Lancaster, City of	October 11, 2017	Solar PV
Marin County	June 13, 2018	Efficiency
Marin County	March 8, 2017	Efficiency
Mill Valley	April 27, 2017	Efficiency
Novato, City of	April 27, 2017	Efficiency
Palo Alto, City of	September 14, 2016	Efficiency, Solar PV, EV
Portola Valley, Town of	July 12, 2017	Efficiency
San Francisco, City of	November 9, 2016	Solar PV or Solar Thermal
San Mateo, City of	September 14, 2016	Cool Roofs, Solar

# Resources

## 1) Reach Code Consultant (beginning February), funded by PCE & SVCE

- Research applicable local & state codes
- Draft model ordinance language
- Technical Assistance Code Adoption & Implementation
- Facilitate stakeholder meetings
- Connect cities to BayREN and Statewide Codes and Standards team

## 2) SVCE, PCE and/or OOS staff support

## 3) Statewide Codes and Standards team, Building Decarbonization Coalition, BayREN

- Cost effectiveness calculations
- Feedback, expertise, collaboration
- March 7<sup>th</sup> BayREN reach code meeting

## 4) \$10,000 Grant to support city efforts, funded by PCE & SVCE

- Letter of Intent from SVCE or PCE
- City invoices SVCE or PCE once the city staff has presented the reach code(s) to council for approval

**BAYREN**



# Summary Timeline

Item	Date	Stakeholders		Consultant Support Available		
		Leader	Participant(s)	Content	Coordination	Technical
Kickoff	Jan 2019	SVCE/PCE	Cities & Consultant	✓		
Cost Effectiveness Study Review	Feb 2019	Consultant	SVCE/PCE	✓		✓
Review Code Options	Mar 2019	Consultant	Cities & SVCE/PCE	✓		✓
<b>Select Code Options*</b>	Mar 2019	Cities				
Draft Amendments	Apr 2019	Consultant		✓	✓	✓
External Stakeholder Input	May 2019	Consultant	Cities, SVCE/PCE, Community	✓	✓	✓
<b>Submit for Council Review**</b>	Aug 2019	Cities	City Council, Consultant			✓
Application to Energy Commission (not for EV code)	Oct 2019	Cities	Consultant			✓
File with Building Standards Commission	Dec 2019	Cities	Consultant			✓
New Code Effective	Jan 2020	Cities				

\* Letter of Intent for \$10,000 support grant from SVCE or PCE

\*\* Payment of \$10,000 support grant from SVCE or PCE



# What's Next

- Statewide group finalizes Cost-Effectiveness calculations (early March)
- Review cost-effective options with City staff (mid-March)
- Cities decide to proceed on proposed measures

Sven Thesen  
Clean Energy Programs Manager  
Peninsula Clean Energy  
sthesen@peninsulacleanenergy.org  
Phone: 650-257-2116  
Cell: 415-225-7645

Rachael Londer  
Sustainability Coordinator  
County of San Mateo, OOS  
rlonder@smcgov.org  
Phone: 650-363-4077

John Supp  
Manager of Account Services  
Silicon Valley Clean Energy  
john.supp@svcleanenergy.org  
Phone: 408-721-5301 x1014  
Cell: 650-646-1524