



## REACH CODE NEWS BRIEF: NOVEMBER 2019

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## 2019: YEAR OF REACH CODES CONTINUES

Statewide, the dramatic increase in activity around development and adoption of local reach codes continues. In September alone, eight jurisdictions adopted measures (San Jose, Menlo Park, San Mateo, Santa Monica, San Luis Obispo, Windsor, Davis, County of Marin). Several more cities have adopted local ordinances in October while others have begun presenting draft measures to local stakeholders and City Councils.

Highlights of the City of San Mateo's story are below; read the complete [Reach Code Frontrunner](#) on our website.

A complete matrix of adoption activities is available [here](#). It is updated regularly due to the rapidly changing state of reach code activities.

## REACH CODES Q&A

### 2019: Year of Reach Codes Continues

Misti has worked in the energy efficiency field for more than 20 years. As principal of Misti Bruceri and Associates, LLC, established in 2007, she provides technical consulting services to private firms, non-profit organizations, and utilities. She is technical lead for the Statewide Reach Codes Program.



Misti Bruceri

**Q: There's been such a tremendous interest in reach codes throughout the state in the past year or two. What are the factors you think most responsible for this interest?**

A: Many jurisdictions across California have enacted Climate Action Plans in the past several years. This, coupled with the advances we've seen in the Building Efficiency Standards (Title 24), the evolution of CALgreen, and the long-term strategic plan adopted at the state level, have provided an environment in which communities are able to identify and implement standards that will be effective, both in terms of costs as well as outcomes, in achieving the CAP targets.

**Q: How does a jurisdiction identify the right reach code?**

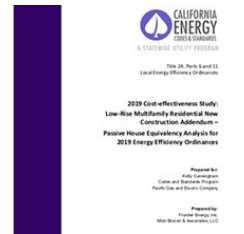
A: As each jurisdiction is unique, there is no "cookie cutter" approach to identifying the most effective reach codes, but there is definitely a range of effective options. These include ordinances in any of the following program areas:

- Energy efficiency
- Electric ready
- Renewable energy generation
- Energy + Water efficiency

**Q: How does a jurisdiction identify the right reach code?**

A: There are quite a few organizations and many resources available to help! The Statewide Reach Codes Program is just one of them, and we are very pleased to collaborate with cities and counties to help them develop the best code package possible, given the demographics of their community, the concerns of their stakeholders, and the targets defined in their specific CAPs. Visit [localenergycodes.com](http://localenergycodes.com) to take a look at all the resources available, or email us at [info@localenergycodes.com](mailto:info@localenergycodes.com)

# NOW AVAILABLE! COLLABORATION WITH PASSIVE HOUSE CALIFORNIA (PHCA) PRODUCES PASSIVE HOUSE EQUIVALENCY ANALYSIS FOR 2019 ENERGY EFFICIENCY ORDINANCES



One promising area for Reach Codes is the adoption of Passive House approaches. Passive House is a building standard that relies on a combination of energy efficiency with passive solar and internal heat gains to dramatically reduce space heating demands and allow for simplified methods of providing needed heat. The concept is implemented through stringent performance standards for airtightness and energy consumption, and verified with a field tested energy modeling program, the [Passive House Planning Package \(PHPP\)](#).

Passive House California (PHCA) and the Statewide Reach Codes Program teamed up to analyze energy efficiency packages that would meet minimum Passive House requirements as a potential approach to meeting 2019 local energy efficiency ordinances. The analysis scope was limited to newly constructed low-rise multifamily projects and was based upon the CEC multifamily 8-unit prototype design.

The PHCA team provided defined energy efficiency measure packages from the PHPP for each climate zone that reflect the minimum requirements to meet the Passive House standard. The Reach Codes team then completed energy modeling for each package using the certified version of the 2019 CBECC-Res compliance software for both mixed fuel (gas space heating, water heating, cooking and clothes drying) and all-electric prototypes to determine if buildings that meet Passive House requirements will also comply with proposed local energy efficiency ordinances.

Jurisdictions interested in reviewing these analyses may obtain them free of charge [here](#).



## CITY OF SAN MATEO IMPLEMENTS ITS SECOND CYCLE OF REACH CODES WITH NEW ORDINANCE PACKAGE

Back in 2016, San Mateo had been one of the first California cities to adopt a reach code package for the 2016 Building Efficiency Standards cycle. Recognizing that these reach codes would be expiring at the end of 2019, the City pursued a new package of ordinances. "The City wanted to maintain the momentum we achieved during this first code cycle," said Andrea Chow, Sustainability Analyst. "Doing so by adopting new reach ordinances that would take up seamlessly on January 1, 2020 from the previous package was a no-brainer for us."

**A Detailed View of San Mateo's Local Energy Ordinances Encouraging Building Electrification (Energy Reach Code)** Building electrification means constructing buildings without any natural gas services. The City's Reach Code will encourage building electrification in single-family, duplex, and office-use buildings by providing two compliance options: 1) constructing an all-electric building at the minimum efficiency as required by the state's new 2019 Building Efficiency Standards; or 2) constructing a mixed-fuel building (electricity and natural gas) at a higher energy efficiency level than these new standards.

**Requiring Solar Installation (Energy Reach Code)** One of San Mateo's first reach codes, adopted by the City in 2016, required that all new construction install a minimum size solar photovoltaic (PV) or solar thermal system. In 2019, the state code encompassed the advanced performance requirements outlined in San Mateo's earlier reach code. Consequently, the City team encouraged an additional Reach Code for the 2019-2022 cycle that extended the solar mandate for all other building types, specifically: Multifamily (4 stories or more): Minimum 3 kW PV system or solar thermal Non-residential (<10,000 sq ft): minimum kW pv system or solar thermal Non-residential (>10,000 SF): Minimum 5 kW PV system or solar thermal

**Increasing Electric Vehicle Readiness (Green Building Code Reach Code)** On-road transportation accounts for the majority of greenhouse gas emissions in the City. By encouraging the use of EVs, the City helps reduce emissions from the transportation sector. San Mateo's existing Reach Code required a higher number of electric vehicle capable (EV Capable) parking spaces than what Title 24-2016 required for new construction projects. By extending the EV Capable requirement and adding a mandatory EVSE (electric vehicle supply equipment) installation for non-residential (office and retail) projects, the City continues to reach beyond the state code and achieve continued progress toward its overall policy goal. Read the complete San Mateo story [here](#).

