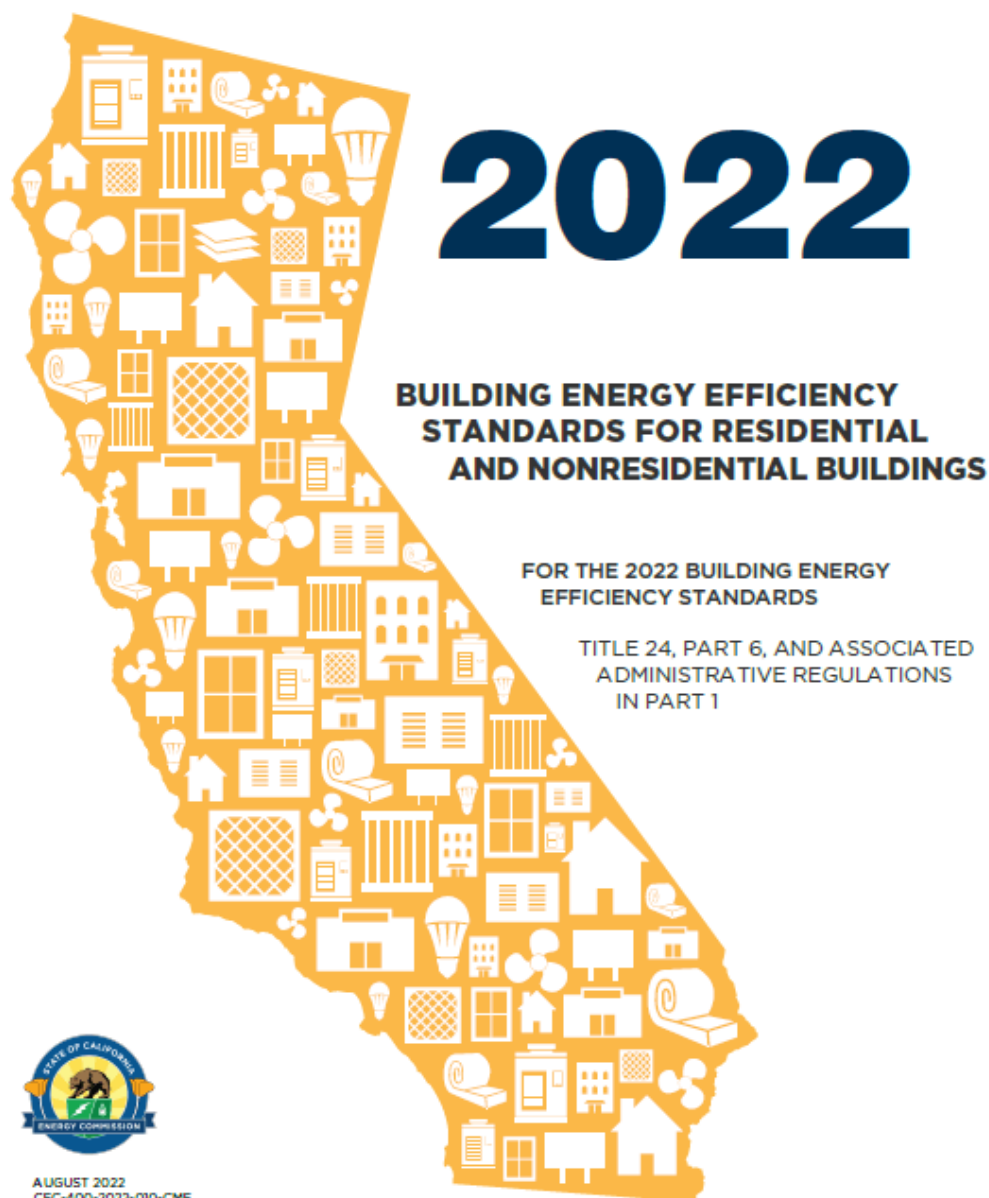


REACH CODE NEWS BRIEF: NOVEMBER 2022

LOCAL JURISDICTIONS PREPARE FOR UPCOMING 2022 CODE EFFECTIVE DATE WITH FLURRY OF REACH CODE ACTIVITIES



AUGUST 2022
CEC-400-2022-010-CMF

CALIFORNIA ENERGY COMMISSION
Gov. In Newsom, Governor

With the effective date of the 2022 Building Energy Code less than two months away, many local jurisdictions statewide are pursuing reach code policies either tied to the new Code provisions or under alternative pathways. More than 30 communities have ordinances underway that are likely to be adopted before January 1 or have already adopted ordinances.

This month, we're highlighting jurisdictions that are in the process of introducing and adopting reach code ordinances for the first time. Next month, we'll publish our annual roundup of approved reach code ordinances for the entire year.

Jurisdictions in northern California include the Towns of Atherton, Corte Madera, and Portola Valley, and the Cities of Dublin, Livermore, Martinez, Pleasanton, San Bruno, and San Leandro.

Communities in central California include City of Sacramento.

Communities in southern California include the Cities of Burbank, Glendale, Riverside, and the County of Ventura.

The Statewide Reach Codes Program maintains an [interactive map](#) of adopted reach codes on its website as well a searchable, downloadable [list](#). Each resource has links to the respective ordinances and staff reports, and both are updated regularly.

UPCOMING EVENTS

November 29: Energy Code Ace training: [2022 Title 24, Part 6 Essentials — Nonresidential & Multifamily Standards: Solar & Battery Storage](#)

December 1: 3C-REN Training: [2022 Energy Code Preview for Nonresidential Projects](#)

December 6: Energy Code Ace training: [2022 Energy Code Changes – Single Family](#)

December 7: BayREN Training: [2022 Energy Code Changes – Nonresidential](#)

December 8: Energy Commission [Clean Energy Hall of Fame Awards](#)

December 13: New Buildings Institute webinar: [Embodied Carbon: Deeper Decarbonization of the Built Environment](#)

December 14: Energy Code Ace training: [2022 Title 24, Part 6 Essentials — Single-family Standards for Architects & Designers](#)

December 14: Energy Commission Monthly [Business Meeting](#)

December 15: BayREN Training: [How the Energy Code Treats Electrification \(2022 Update\)](#)



It's the time of year when we're in the kitchen more often . . . a perfect time to educate stakeholders about induction technology.

Find out more about popular [induction cooktop loaner programs!](#)



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SPECIAL HPHW FOCUS THIS MONTH!



Q&A WITH CHRISTINE TAM AND CHRISTINE LUONG: TAKING A LOOK AT CITY OF PALO ALTO'S ADVANCED HEAT PUMP WATER HEATER PILOT PROGRAM

Christine Tam (pictured above top left) is a Senior Resource Planner with the Utilities Department at the City of Palo Alto. During her time at Palo Alto, she has developed energy efficiency programs and led pilot projects to test emerging technologies. In the past six years, she has focused on building electrification as a key strategy to meet Palo Alto's greenhouse gas reduction goals. Christine works with staff across city departments to encourage voluntary electrification of natural gas appliances and implement mandates where appropriate. Prior to joining Palo Alto, Christine worked at the California Public Utilities Commission's Division of Ratepayer Advocates, and led DRA's positions in the use of ratepayer funds for energy efficiency programs and the implementation of California's AB 32 Scoping Plan. Christine received a B.S. in Industrial Engineering & Operations Research from University of California, Berkeley, and an M.S. in Engineering Economic Systems from Stanford University.

Christine Luong (pictured above bottom left) is a climate change and sustainability advocate with extensive experience managing environmental, advocacy, membership, and health programs. As the Sustainability Manager for the City of Palo Alto, she collaborates with City departments to implement Palo Alto's Sustainability and Climate Action Plan. Prior to joining the City of Palo Alto, Christine was the Environmental Entrepreneurs Director of Operations and Member Engagement at the Natural Resources Defense Council. She worked with the

business community to find opportunities to drive economic growth by supporting sound environmental policies. Christine has experience in the health care sector, and managed environmental health and safety projects with the U.S. Environmental Protection Agency and the National Education Association. Christine holds a master's degree in Public Administration from San Francisco State University and a bachelor's degree in Environmental Science and Policy from Duke University.

Q: Tell us a little about the City's new pilot program and the impetus behind it.

Christine Tam: The City's new [heat pump water heater program](#) is designed to make replacing a gas water heater with an efficient heat pump water heater easy and affordable. We do this by offering full-service installation for a low up-front cost. Customers can choose from two simple payment options - either one flat price (\$2700) or, if \$2700 up front is too much, then participants can pay \$1500 up front and \$20 per month on their utility bill for five years. Most residents will save \$5 to \$20 per month on their utility bill since heat pump water heaters are 3 to 4 times more efficient than gas water heaters and Palo Alto's electricity rates are low, making the monthly payment option especially attractive. The program also offers a rebate option (\$2300) for residents who choose to manage their own projects.

Christine Luong: The impetus behind the program was the City's commitment to achieving its "80 x 30" goal of reducing greenhouse gas emissions 80% relative to a 1990 baseline, by 2030. A program to replace residential gas water heaters was determined to be the best place to start because water heating represents the second largest use of gas in homes (following space heating) and heat pump water heaters have a manageable impact on the city's electric distribution system. In August 2016, Palo Alto had launched a HPWH rebate to incentivize residential customers to replace their gas water heaters with a heat pump water. Despite our best effort to promote the HPWH rebate, uptake has remained low. Based on a community survey, high upfront cost and difficulty selecting a contractor are two key adoption barriers. This new pilot program is designed to address these barriers by lowering the upfront cost and offering a one-stop shop for customers to replace their gas water heaters, with the goal of replacing 1000 gas water heaters in one year.

Q: How does this program fit within the City's Climate Action Plan?

Christine Luong: The new Heat Pump Water Program is a key component of the City's overall Sustainability and Climate Action Plan (S/CAP). In order to meet our 80 x 30 goal, we need to prioritize several strategies, including electrifying gas appliances in single-family homes, electrifying commercial rooftop HVAC units, replacing internal combustion engine vehicles with electric vehicles, encouraging commuters and visitors to drive EVs to Palo Alto, reducing overall vehicle miles traveled, expanding alternative transportation options, and exploring additional emissions reductions opportunities in multi-family and commercial buildings. The Heat Pump Water Heater Program will serve as a model that we can learn from to create similar programs for other appliances.

Q: How does it fit within the City's reach code goals?

Christine Tam: Palo Alto's current reach code requires all heat pump water heating and space heating equipment in residential new construction projects. For the upcoming code cycle, the proposed reach code requires a HPWH when the existing water heater is replaced or a new water heater is added as part of a residential addition/alteration project. While these projects will not be eligible for the rebate offer, we expect that the HPWH will be cost effective compared to gas alternatives based on bill savings and the tax incentives offered through the federal Inflation Reduction Act. The pilot program and the City's reach code requirements are complementary strategies to address greenhouse gas emissions from water heating in the residential sector.

Q: Are there any partners the City is working with to ensure the program's success?

Christine Luong: In designing the program we partnered with a working group composed of community advocates and experts led by our City Council's Ad Hoc Sustainability and Climate Action Plan Subcommittee. We are grateful to be working with great program implementers; Synergy, which is doing assessments and installations, and CLEAResult, who runs our Home Efficiency Genie program. Funding from the State of California's Cap and Trade program, which the City participates in as a municipal utility, has been critical. And we expect residents who participate will take advantage of incentives in the Federal Inflation Reduction Act as well. We appreciate the efforts of legislators and regulatory bodies who have made those programs possible.

Q: Is this program a model you think other jurisdictions could implement? What are some lessons learned so far?

Christine Tam: Many elements of the City’s program have already been implemented elsewhere. For example, many agencies and utilities already install equipment in homes, such as in an income-qualified energy efficiency program, but we made this service available to all residents. There are utility on-bill financing programs available out there. The simple pricing we offer is not difficult to design.

Christine Luong: Given that it draws on a combination of features that have been well established elsewhere, we certainly think our program could be implemented by others. It might require coordination between various bodies, such as municipalities, nonprofits, utilities, or community choice aggregators. As a small municipality that owns its own utilities, we were able to coordinate program implementation and funding sources without external partnerships.

Q: May other jurisdictions contact you if they have questions?

Christine Tam: Of course, individuals can contact us at sustainability@cityofpaloalto.org or me personally at Christine.tam@cityofpaloalto.org.



This program is funded by California utility customers and administered by Pacific Gas and Electric Company, San Diego Gas & Electric Company (SDG&E®) and Southern California Edison Company under the auspices of the California Public Utilities Commission and in support of the California Energy Commission.

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