



## REACH CODE NEWS BRIEF: NOVEMBER 2021

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## PLANNING FOR 2022 REACH CODE WORK GETS UNDERWAY WITH SURVEY



At its August monthly business meeting, the Energy Commission approved the 2022 Building Energy Efficiency Standards, with an effective date of January 1, 2023. Policy organizations and stakeholders around the state immediately began planning for the building blocks of reach code development to enable jurisdictions to swiftly develop and enact complementary ordinances advancing local goals. These building blocks include the necessary studies required for jurisdictions to both inform discussion with stakeholders and to make a finding that the local ordinance is cost effective – as required by state law.

Led by [Building Decarbonization Coalition](#) and [BayREN](#), stakeholders have developed a [survey](#) to identify and prioritize the cost-effectiveness studies to be most critical for the range of energy policy approaches jurisdictions anticipate proposing. The detailed scoping plan identifies the first priority as New Construction Efficiency and Electrification, followed by Existing Building Electrification, Solarization and Efficiency and additional topical studies, if feasible. At the time of this writing, 25 jurisdictions have already responded.

Notes Barry Hooper, BayREN Codes lead for San Francisco, “We followed this process during the most recent code cycle and found it significantly streamlined local efforts. Not only was the statewide reach codes team able to begin work earlier, but they were also able to provide a solid foundation for a broad array of jurisdictions to propose cost-effective policies.”

Misti Bruceri, technical lead for the statewide reach codes program concurs. “During the last cycle, 39 jurisdictions participated in the survey, which was a tremendous help in pinpointing the needs. With 52 jurisdictions adopting reach codes during the 2019 cycle, we anticipate a continued growing need for these cost-effectiveness analyses. As always, the cost-effectiveness studies and information about adopted ordinances are available at our [website](#).”

The survey, intended for local jurisdiction staff and elected officials, seeks input to validate the scoping work done by the local government leaders. The survey, available [here](#), is open until November 24, 2021.

## UPCOMING EVENTS

### December

**December 7:** BayREN and Energy Code Ace Training: Residential Energy Standards - Accessory Dwelling Units (ADU)

**December 8:** Energy Commission Business Meeting

**December 8:** USGBC-LA: 17th Annual Green Gala

**December 10:** 2021 Clean Energy Hall of Fame Awards



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## NEW THIS MONTH!



### A LOOK AT ELECTRIFICATION INITIATIVES

*This story is excerpted from "Buildings and Transportation Electrification: Coming Soon to a Community Near You," published in the Fall issue of **Solar Today**. Author George Burmeister is President of Colorado Energy Group in Boulder, Colorado where he primarily provides climate and clean energy policy advice to state and local governments since 1997.*

Thanks to dramatic cost declines and thousands of large solar projects coming on-line, electrification of the buildings and transportation sectors, along with the decarbonization of the electricity grid, is probably the biggest front-page news in the energy industry since deregulation.

California leads the country on electrification.<sup>1</sup> After an extensive public comment period, on August 11, 2021, the California Energy Commission adopted energy efficiency standards for new construction and renovations, the country's first statewide building code that incentivizes all-electric construction. Effective in January 2023, the 2022 Energy Code encourages electric heat pumps for space and water heating, expands solar and battery storage standards and adopts electric-ready requirements for single-family homes.

#### ***Electrification: Underpinned with Sound Science***

Despite the recent lack of science-based decisions at the federal level, some of the greatest minds in our national laboratories and the clean energy space are providing new GHG-related analyses to utilities, cities and states and their consultants. Major electrification initiatives are underway at the Rocky Mountain Institute (RMI), the Natural Resources Defense Council (NRDC), the Regulatory Assistance Project (RAP), Lawrence Berkeley National Laboratory (LBNL), the National Renewable Energy Laboratory (NREL) and the Electric Power Research Institute (EPRI). In an updated 2018 report,<sup>2</sup> RMI compared the cost of building an all-electric single-family home to a gas-fired home in seven cities around the U.S. The findings revealed that the all-electric homes saved money and reduced carbon pollution in every case. Additionally, running natural gas lines to new homes and maintaining them over decades is expensive. RMI found that up-front costs can be as much as \$24K per home.

These initiatives acknowledge that end-use electrification coupled with the decarbonization of electricity generation is a key pathway to achieving a low-carbon future in the United States. In our lifetime.

In June 2021, the Solar Energy Industries Association (SEIA) announced that the U.S. solar market surpassed 100 gigawatts (GWdc) of installed electric generating capacity, doubling the size of the industry over the last 3.5 years.

Solar had a record-setting Q1 2021 and accounted for 58% of all new electric capacity additions in the United States.<sup>3</sup>

Renewable energy accounted for nearly 100% of all new electric capacity in Q1. Utility-scale renewables now account for 24.77% of the total of all installed generating capacity and expanded their lead over coal (19.28%).<sup>4</sup>

On August 5, 2021, President Biden signed an executive order that sets a target that half of all vehicles sold in the U.S. be electric by 2030. U.S. automakers pledged 40 to 50% of new car sales will be electric by 2030.<sup>5</sup>

More than 2,011 jurisdictions in 34 countries have declared a climate emergency. Populations covered by jurisdictions that have declared a climate emergency amount to over one billion people.<sup>6</sup>

More than 60 California cities including Berkeley, Ojai, San Francisco, and San Jose have, or are considering, banning natural gas in future



### CLEAN ENERGY CHOICE PROGRAM FOR NEW BUILDINGS ENCOMPASSES NEW REACH CODES AND INCENTIVES FOR CITY OF SAN LUIS OBISPO

San Luis Obispo, home to just under 50,000 and halfway between San Francisco and Los Angeles, is part of the state's Central Coast region famous for vineyards and picturesque Spanish missions. The City is also home to California Polytechnic State University with an enrollment of 22,000 students.

The City began exploring electrification reach codes in late 2018 together with incentives and other mechanisms intended to both encourage and simplify implementation of all-electric requirements for new construction. The City was committed to developing a holistic approach to reach code adoption, one that provided information, technical support, and financial incentives in concert with new building standards. To this end, City staff developed a measure that provided for both all-electric and mixed-fuel pathways, together with a range of elements designed to educate and support stakeholders in the transition phase.

Notes Chris Read, Sustainability Manager for the City of San Luis Obispo, "The Clean Energy Choice Program for New Buildings is a critical program for achieving our climate action goals. The flexibility in the 2019 code cycle, paired with technical assistance and financial incentives, has led to a substantial number of all-electric new building permits in our community."

In July 2020, City Council adopted the Clean Energy Choice program. The program consists of four major aspects:

1. Reach code focused on new construction
2. A complementary measure providing additional regulatory flexibility to address design challenges that might arise during the initial transition period to all-electric buildings. This regulatory flexibility runs from September 1, 2020, to December 31, 2022.
3. Financial incentives: The City's CCA, Central Coast Community Energy (formerly Monterey Bay Community Power, or MBCP), has developed a multi-year direct incentive program for affordable housing projects.
4. Technical support: on-call professional design and consulting services with ID360 and 4LEAF, Inc. to answer technical questions about the Clean Energy Choice Program for New Buildings.

Read notes that the City also adopted a companion measure to the reach code ordinance providing setback flexibility for certain types of mechanical equipment.

#### **Implementation and Lessons Learned**

The City is now a full year post-adoption. Two large residential developments appear to be on track in terms of compliance with the new measures. An estimated three-quarters of the permits since adoption have selected the all-electric pathway.

The City maintains a full suite of resources, including the technical support help desk mentioned above. This assists applicants with understanding the code's applicability to new construction projects and other assistance.

The City looks to expand its building decarbonization work with updates to the program as part of the 2022 California Building Code update cycle, a building retrofit for affordable housing pilot program, and initiating retrofits in its municipal building stock.

Read the full Frontrunner story [here](#).

buildings based on health and safety reasons, or based on energy/GHG as part of a "reach code." Los Angeles and Los Angeles County are aggressively working on electrification initiatives as well.<sup>7</sup>

*Originally published by the American Solar Energy Society in the Fall 2021 issue of Solar Today. [Read the entire article.](#)*

<sup>1</sup> <https://bit.ly/3fTJ5Nt>

<sup>2</sup> <https://bit.ly/37lWaKO>

<sup>3</sup> <https://bit.ly/3s7rUwG>

<sup>4</sup> <https://bit.ly/37OavQm>

<sup>5</sup> <https://nyti.ms/3ABXZ2E>

<sup>6</sup> <https://bit.ly/3CQa5Y0>

<sup>7</sup> <http://localenergycodes.com>



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