

REACH CODE NEWS BRIEF: SEPTEMBER 2024

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LOCAL ENERGY CODES TEAM PRESENTS UPDATE FOR EXISTING SINGLE FAMILY HOMES COST-EFFECTIVENESS ANALYSIS



The Local Energy Codes team presented a webinar on Wednesday, September 11, 2024 focusing on the updates to the Existing Single Family Homes Cost Effectiveness Study. Presenters included Misti Bruceri, Coordinator of the Local Energy Codes program, technical leads Alea German and Ada Shen of Frontier Energy, and Jasmine Krause of Policy Studio, part of the Cost-Effectiveness Explorer development team.

The updated analysis was necessary because of numerous changes in the marketplace, as Shen noted. These include rising installation costs, tariff changes from utilities, new measures including ductless HVAC and heat pump water heater tank locations, and updated software from the California Energy Commission (2025 CBECC-Res research version).

Summary results include:

- Envelope: Improving envelope performance is very cost-effective in many older homes
- Duct measures: many older homes have leaky duct systems that should be replaced at end of life (20-30 yrs).
- HPSH: LSC cost-effective in most climate zones.
- HPWH: LSC cost-effective in all climate zones.
- PV: Less utility cost savings under NBT. Favor on site utilization of PV generation.
- Next steps: AC to HP replacement

The webinar also provided some hands-on demonstrations with the free online Cost-Effectiveness Explorer. Jasmine Krause conducted a policy development scenario using the new, updated data as well as demonstrating how the Explorer works.

The webinar presentation materials are available here and the recording is available on the YouTube channel here.

UPCOMING EVENTS

October 2: New Buildings Institute: Clean Energy Workforce Diversity: Access, Inclusion and Belonging

October 3: 3C-REN Event: Building Tour of Four All-electric Buildings to Reduce the Carbon Footprint – 2024 Central Coast Bioneers

October 3: California Energy Commission Business Meeting

October 9: BayREN Training: Residential Additions.

October 10: I-REN & Energy Code Ace Training: 2022 Code Breaker: Nonresidential HVAC Packaged or Split DX Alterations

October 16: Central Coast Sustainability Summit. UC Santa Barbara.

October 24: Sustain SoCal: 15th Annual Energy Conference. The Cove at UCI Beall Applied Innovation.

October 28: California Energy Commission: 2024 Electric Program Investment Charge (EPIC) Symposium





ENERGY COMMISSION ADOPTS 2025 ENERGY CODE

At its monthly Business Meeting on September 11, 2024, the California Energy Commission (CEC) adopted the 2025 Building Energy Efficiency Standards (Energy Code) for newly constructed buildings, building additions, and alterations to existing buildings.

These updates will contribute to California's efforts to decarbonize its buildings as well as providing more than \$4.8 billion in estimated statewide energy cost savings over 30 years.

For more information, visit the Commission's 2025 Energy Code webpage. And don't miss next month's issue, when we explore the 2025 Code updates in greater detail!

NEW THIS MONTH!



Q&A WITH MADELYN WAMPLER: A USER'S PERSPECTIVE ON THE COST-EFFECTIVENESS EXPLORER

At the time of writing, Madelyn Wampler was a Sustainability Analyst for the City of Encinitas, where she led efforts on implementing reach codes. With a broad background in environmental sciences, including climate science, coastal adaptation, and coastal policy, Madelyn has collaborated with local, state, national, and international partners to advance environmental and community initiatives. Her previous roles include research grant administration for California Sea Grant, environmental conservation for the Port of San Diego, and stormwater compliance monitoring for the City of Oceanside. During her time in Encinitas, she focused on developing policies that align with the city's Climate Action Plan, including the adoption of a high-performance reach code.

Q: Tell us a little about how you came to use the Cost-Effectiveness Explorer, Madelyn!

A: When I was hired as a Sustainability Analyst by the City of Encinitas, one of my first assignments was to assist in developing a new reach code to replace the all-electric ordinance, which was suspended in June 2023. Previously, my supervisor used the Explorer and recommended it as a good way to begin familiarizing myself with policy development.

Q: How did you use the tool throughout this effort?

A: I used the Explorer along with outside research to enrich my understanding of terminology. I found the "info" icons to be extremely helpful in providing immediate context to the area I was working in. For example, when we decided we wanted to look more into the high-performance reach code using a single source energy metric, I was able to dig a little deeper into that simply by clicking on the icons or the 'Learn more' prompts throughout the process.

Q: How did the Explorer help your process? Did it eliminate the need to study the reports?

A: The Explorer definitely helped streamline the research process, but I still needed to study the reports carefully. I found that using the Explorer to complement the information from the report, to zoom in on specific Climate Zone 7 aspects relevant to the City of Encinitas was very helpful in getting both the deep detail but also to filter out the unnecessary data.

Q: A big part of the process is always working with Council and the public stakeholders. Were there any benefits you found with the Explorer in that respect?

A: Surprisingly, using the Explorer was very beneficial in preparing for discussions with City Council and the public. The fact that it is publicly available, and that anyone can see exactly what a staff person like myself can see, really helps support the transparency of the entire process. Sometimes, I would capture a screenshot to share, and while I often had to provide more detailed explanations of what the information meant in a more immediate way, the audience could still recreate the exact image and be confident that the information was easily available to them. For

instance, I could point to the electricity or gas savings and translate the figure into a less technical, more relatable measure, like number of cars removed from the road or the amount of hours the savings could power homes.

Q: Is there anything you'd like to share with our readers about the Explorer?

A: One of the most valuable aspects I found was the multi-learning modes; there were opportunities to learn through visualizations as well as descriptions. I liked the fact that I could get help through the chat function if needed.

Q: What were the results of your efforts with developing a reach code?

A: The City adopted a high-performance reach code in June 2024, which was approved by the California Energy Commission on September 11, 2024. We're now starting our outreach efforts to make sure all relevant stakeholders are informed about the upcoming changes. We're proud to be the first city in San Diego County to implement this type of code, setting a new standard for sustainability in our region.

For more information on the City of Encinitas reach code, visit their Energy Efficiency and Green Building webpage.

Try out the Cost Effectiveness Explorer today!



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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