

REACH CODE NEWS BRIEF: JANUARY 2024

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IDENTIFYING NEW APPROACHES TO REACH CODE POLICY PLANNING



With a new reach codes policy landscape following the Berkeley ruling, the Statewide Reach Codes Team recognizes there are new challenges as well as opportunities like ordinances focusing on EV infrastructure, pipe sizing, or embodied carbon to name just a few. The Team is working on an in-depth survey initiative to meet with jurisdiction staff one-on-one to explore the evolving needs and how the statewide team can provide the most valuable assistance. A range of stakeholders are providing input into the survey design to obtain the most comprehensive perspectives.

Energy policy specialist Neal De Snoo notes there are two aspects to this initiative. "One aspect focuses on the current code cycle and what opportunities a community may yet have during the remainder of the 2022 cycle," says De Snoo.

"The other aspect will focus on the upcoming 2025 cycle. We have some insight into the potential structure of this upcoming code, with early draft Express Terms available. With this as a framework, we can have conversations with local staff about how they see local efforts taking shape, and how we can best help them with technical resources, cost effectiveness analyses, and more."

This survey initiative, expected to be complete by the end of March, will consist of one-on-one conversations with De Snoo and local staff. Following the conversations, the data will be anonymized and aggregated geographically and by utility service territory. A public report sharing the results will be available.

The Statewide team is seeking interested jurisdictions to participate and anticipates the survey interviews will begin sometime in February. Interested staff are encouraged to contact De Snoo to join the interest list.

UPCOMING EVENTS

February 13: 3C-REN webinar: Elements of a Whole House Assessment: The Home Energy Audit Explained

February 14: BayREN webinar: Residential Alterations Compliance

February 14: California Energy Commission Business Meeting

February 16: 9th Annual Energy Innovation Conference. UCLA

February 20: 3C-REN webinar: Practical Ways to Address Embodied Carbon

February 22: I-REN Webinar: 2022 Energy Code: Overview of Solar Photovoltaic and Energy Storage Systems



NEW THIS MONTH!



Q&A WITH LAWRENCE GARBER: AN INTRODUCTION TO NEIGHBORHOOD SCALE

Lawrence is a Senior Policy Associate with the Building Decarbonization Coalition (BDC). He works with local government staff around California to create a safer and healthier energy future by moving buildings off of fossil fuels. Prior to joining BDC, he served as an environmental science educator in Yosemite National Park, a high school teacher in Austin, Texas, and a Peace Corps Volunteer in Sierra Leone and Namibia. He has a Masters in International Environmental Policy from the Middlebury Institute of International Studies at Monterey and a Bachelor's degree from the University of Michigan. He currently lives in Irvine, CA, where you can find him cooking for family and friends on his induction hob.

Q: Lawrence, please tell us about the evolution of this new initiative from Building Decarbonization Coalition and Gridworks?

A: We're very excited about this strategy and believe it offers a coordinated approach, complementary to the current "house-by-house," "appliance-by-appliance" approach to building decarbonization. That approach typically involves a mosaic of individual consumers, incentives, technologies, codes, contractors, utilities, and uneven access to capital. In contrast, a neighborhood-scale approach focuses on transitioning street segments, developments, or even entire neighborhoods to decarbonized energy sources and electric appliances.

BDC has a blog post that digs deep into the evolution of this approach, going back to the Flipside Report, published in 2021, which began exploring geographically targeted electrification.

Q: It sounds like a major shift in thinking for stakeholders. What are some of the key aspects to this approach?

A: In our whitepaper we propose two primary technology pathways to implementation: the Electric Network and the Thermal Energy Network (TEN). The Electric Network pairs the existing electric grid with four primary electric appliances: heat pump water heater, air- or ground-source heat pump, induction or electric resistance range, and a heat pump or electric resistance clothes dryer. The Thermal Energy Network shares and redistributes thermal energy across linked buildings via pipes filled with water or other liquid solutions.



One technology pathway, the Electric Network, pairs the existing electric grid with four primary electric appliances: heat pump water heater, airor ground-source heat pump, induction or electric resistance range, and a heat pump or electric resistance clothes dryer



The other primary technology pathway, the Thermal Energy Network (TEN), shares and redistributes thermal energy across linked buildings.

Within these two primary pathways, there are many variations on how energy is stored, distributed, and used that we designate as "Networked Innovations." These innovations may include microgrids, on-site renewable energy, backup storage, etc., and would pair with the existing electric grid and/or TENs.

These pathways can apply to both new construction and existing buildings and should be paired with weatherization and energy efficiency measures to reduce energy use and costs.

Of course, there are numerous regulatory, legislative, social, and economic changes that are needed to advance this approach such as developing equitable rate models and reforming the obligation to serve among others.

Q: So, some of the technologies currently being used in the "house-by-house" or "appliance-by-appliance" approaches are the same?

A: Yes, that is why we view the neighborhood-scale strategy as being complementary to this approach. The "appliance-by-appliance" or "house-by-house" strategy has been, and remains, essential to driving market transformation, building awareness, phasing-in early adopters, and socializing lessons learned. What the neighborhood-scale framework provides is a vision for scaling up this less coordinated approach to create the systems-level change we need to meet climate goals.

Q: How do you see reach code policy development efforts interacting with an initiative like this?

A: At the local level, we know jurisdictions are very skilled at engaging stakeholders and identifying consensus actions through outreach and communication. They are often the trusted voices in their communities. So in developing reach codes, these communities can and have created valuable processes that can be utilized for continuing conversations around systems-level approaches like neighborhood-scale decarbonization.

Q: What resources are available to local jurisdictions interested in finding out more?

A: In addition to the whitepaper published by BDC and Gridworks, BDC offers a deeper dive into the technology pathways with a website focused on the Thermal Energy Network initiative. BDC is also hosting a webinar on this topic on Thursday, January 25. The presentation recording can be accessed on the BDC website here, a few days after the event. And of course, interested individuals can always contact me directly at lawrence@buildingdecarb.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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