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REACH CODES CORNER: RECAPPING THE NEWCOMERS WEBINAR SERIES

Q&A: A LOOK AT THE TECH CLEAN CALIFORNIA AND BUILD INITIATIVES WITH AMY DRYDEN AND PETER FLORIN

This column is a monthly feature focusing on specific topics of interest to newcomers to the reach code development community.

Amy Dryden (above left) is currently the Director of Strategic Innovation at the Association for Energy Affordability, specializing in research and development and codes and standards initiatives focused on decarbonization and health and electrification. A green building professional with over 20 years of experience, she works with the building industry to create more sustainable and healthier housing. She has a master's degree in environmental planning from University of California-Berkeley.

To date this year, the Reach Codes Newcomers webinar series has conducted four sessions with more than 900 registrants. A collaboration between the statewide reach codes program, BayREN and the California Climate & Energy Collaborative (CCEC), the series offers newcomers—or anyone wanting to deepen their understanding of reach codes—a deep dive into all aspects of reach code development, options, timing, implementation and more. Here's a brief recap of the first four sessions:

Peter Florin (above right) serves as Senior Project Manager at Energy Solutions, where he serves as the Implementation Program Manager for TECH, California's flagship market transformation program focused on expanding the adoption of heat pump technology for residential space and water heating applications. He has a master's degree in mechanical engineering from University of California-Berkeley.

Session One: Introduction (January 25)

This first session introduced the webinar team: Misti Bruceri, coordinator for the statewide reach codes team; Karen Kristiansson, Program Manager, BayREN Codes & Standards, BayREN, and Angie Hacker, Best Practices Coordinator, CCEC. The team began with the mission of the series: to provide the background and technical information for reach code newcomers at the local government level who are being tasked with developing reach codes. Taking a high level view, the team then explored types of reach codes, the state standards such as Title 24 and CALGreen, reasons jurisdictions adopt reach codes, a quick overview of the development and adoption process, the role of cost-effectiveness, climate zones and federal preemption, and available resources. Session materials can be downloaded [here](#).

Q: Tell us a little about the BUILD and TECH programs, Amy and Peter.

Amy: These programs emerged from SB1477, signed into law by Governor Brown in 2018. They are market transformation initiatives designed to advance the state's mission to achieve carbon neutrality by driving market adoption of low emissions technologies in the state's residential sector in both new construction and existing homes.

Session Two: Reach code process and timing (February 22)

In this session, the team focused on timing and preparing for introduction to local elected officials. Streamlining adoption by adopting a reach code at the same time a jurisdiction adopts the new building code and any other local amendments ensures the policy takes effect at same time as the updated state code. Alternatively, jurisdictions may wish to adopt at a time that makes the most sense locally, which might occur at any point during the three-year code cycle. Karen Kristiansson, Program Manager, BayREN Codes & Standards, led the team in exploring the pros and cons of each approach. Cory Downs from City of Chula Vista, Demian Hardman-Saldana from County of Contra Costa, and Barry Hooper from the City and County of San Francisco shared their perspectives on navigating the local process. Session materials can be downloaded [here](#).

Peter: In addition to offering financial incentives to stakeholders, these programs also encompass critical market preparation activities, such as development of a skilled and knowledgeable labor pool, increase the understanding and benefits of electrification in both the developer and homeowner populations, and help identify the most high-impact future efforts through the data obtained in these programs.

Session Three: Cost-Effectiveness (March 22)

This session examined the role of cost-effectiveness as a threshold legal requirement for local reach codes. After first exploring the basics,

These programs are funded by California investor-owned gas corporation ratepayers under the auspices of the California Public Utilities Commission.

Q: What is the difference between the two programs?

Amy: BUILD is the Building Initiative for Low-Emissions Development Program, which focuses on supporting the adoption of advanced building design and all-electric technologies in new, affordable all-electric homes. By providing deep technical assistance to multifamily stakeholders (owners/developers, contractors, and design teams) coupled with financial incentives to building owners and developers of affordable housing, the program expects to kickstart market transformation through expanded adoption of technologies as well as

including definitions and metrics, guest speakers Chris Read, Sustainability Manager, City of San Luis Obispo and Greg Mahoney, Assistant Building Official, Sacramento County offered valuable insights from their own local experiences. The session concluded with a look at what goes into a cost-effectiveness study when prepared either by the statewide program or a private consultant hired by a local jurisdiction. Session materials can be downloaded [here](#).

Session Four: Reach Code Options (April 26)

The most recent session explored the various reach code options. Led by featured speakers Lawrence Garber, Program Associate, and Amy Rider, Director of Policy Acceleration, of Building Decarbonization Coalition, the session dove deep into the various types of policy structures: true reach codes, natural gas moratoriums, emission limits on appliances, appliance replacements, community scale phase outs, and building performance standards. Each of these could be applicable to new construction or to existing buildings. The team evaluated the specific options in terms of applicability, using the City of San Jose as an example. Session materials can be downloaded [here](#).

educate the marketplace on all-electric building design and technologies.

Peter: TECH Clean California focuses on retrofits, driving market adoption of low-emissions space and water heating technologies for existing single and multifamily homes across the state. This is a notable source of the state's carbon footprint since about 90% of California residences use legacy fossil fuels for furnaces and water heaters. In this initiative, the focus is on providing education and training as well as financial incentives to 'midstream' stakeholders such as HVAC contractors and plumbers.

Q: How can these programs and the ongoing work assist local government staff working on reach code development?

Amy: Because the focus is on market preparation and transformation, many necessary conditions for successful reach code implementation are being developed by these programs. For instance, the continued market penetration of these technologies demonstrate feasibility to community participants on a practical level that often eases opposition. In addition, the increase of installed base over time helps drive costs down just as we've seen with other new technologies such as solar photovoltaics (PV).

These programs were also designed to "layer" with other programs to provide robust incentives to drive these retrofits. One example is the statewide Low-Income Weatherization Program, which incentivizes PV systems, electrification measures and energy efficiency upgrades for low-income households based on GHG emissions. This can be useful for jurisdictions to understand financial support available for retrofits.

Peter: The data we expect to see from these programs will also be extremely valuable. While it's early days yet, we do expect to have data available later this year or early next year on such factors as ongoing operating costs, trained labor costs and first investment cost differentials between these advanced technologies compared with legacy technologies. All these data will be useful to local staff evaluating reach code options.

Q: When did the programs begin and how can interested parties find out more?

Amy: BUILD launched mid-March and the Energy Commission maintains a [webpage](#) devoted to the program. There's a useful [Fact Sheet](#) available as well.

Peter: TECH launched in early December 2021 and the [webpage](#) offers comprehensive information about the program as well as additional resources.

Q: What are the next steps for these initiatives?

Amy: BUILD is off to a great start. Less than two months after launch, 35 multifamily affordable properties representing 2,919 units have engaged with the Program to receive technical assistance.

Peter: TECH is also seeing a great deal of interest. A recent surge of activity has resulted in two gas companies' service territories attaining full commitment of available incentives. The program is also working to finalize a public-facing dashboard that can be accessed to explore data as it emerges from ongoing projects. This is expected to launch in early Q3. **Peter:** TECH is also seeing a great deal of interest. A recent surge of activity has resulted in two gas companies' service territories attaining full commitment of available incentives. The program is also working to finalize a public-facing dashboard that can be accessed to explore data as it emerges from ongoing projects. This is expected to launch in early Q3.



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