REACH CODE NEWS BRIEF: JANUARY 2020

NEW REACH CODE CYCLE BEGINS WITH CALIFORNIA'S ENERGY CODE EFFECTIVE DATE OF JANUARY 1, 2020

January 1, 2020 marked the effective date of the newest cycle of California's Energy Code. Highlights of the new code include:

- solar photovoltaic systems for residential new construction
- encourage demand responsive technologies including battery storage and heat pump water heaters
- efficiency standard for healthcare new construction

- maximize LED technology for nonresidential indoor and outdoor lighting

Detailed information is available here. The Statewide Codes & Standards Energy Code Ace program also offers a wide range of resources, training and tools.

Local jurisdictions across the state continue to work through the reach code adoption process with provisions that go beyond these new statewide standards.

Pending Energy Commission approval are reach ordinances from Davis, Encinitas, Windsor, Santa Rosa, Mountain View, and Berkeley.

Visit our website for detailed information about status of adopted or pending reach codes.

NEW THIS MONTH!

Q&A WITH STEFANIYA BECKING: IDENTIFYING WATER + ENERGY NEXUS REACH CODE OPPORTUNITIES

Stefaniya Becking is Senior Project Manager at Energy Solutions and serves as a technical lead for the Water plus Energy subprogram of the statewide California Codes and Standards Reach Codes program. Ms. Becking has worked at the intersection of information technology and environmental sustainability for numerous years, both with governmental organizations and private industry. She serves on the Board of Directors for the California Irrigation Institute, the oldest independent forum on irrigation and water in California. She also serves on the Board of Directors for a wastewater agency in California. Through technical analysis and stakeholder engagement, Ms. Becking advocates for water and energy efficiency standards for appliances and buildings at local and state levels.

Q: What exactly is the Water + Energy nexus, Stefaniya?

A: Simply put, it takes water to produce energy, and it takes energy to deliver water to tap. Water and energy go hand in hand.

Q: So, reducing water usage reduces energy usage?

A: Exactly, by saving water, we automatically save energy that would have been used for extracting, conveying, treating, and distributing water, then collecting the used water or wastewater, and treating that wastewater.

Q: What are the best ways to optimize these intertwined resources?

A: Good opportunities exist to reduce both indoor and outdoor water usage. Some specific examples include:

- Installing water conserving plumbing fixtures and fittings that meet CALGreen voluntary requirements (indoor water use)
- Pre-plumbing new construction dwellings for graywater irrigation systems (outdoor water use)
- Making improvements in implementation and enforcement of the existing statewide Model Water Efficient Landscape Ordinance (outdoor water use).

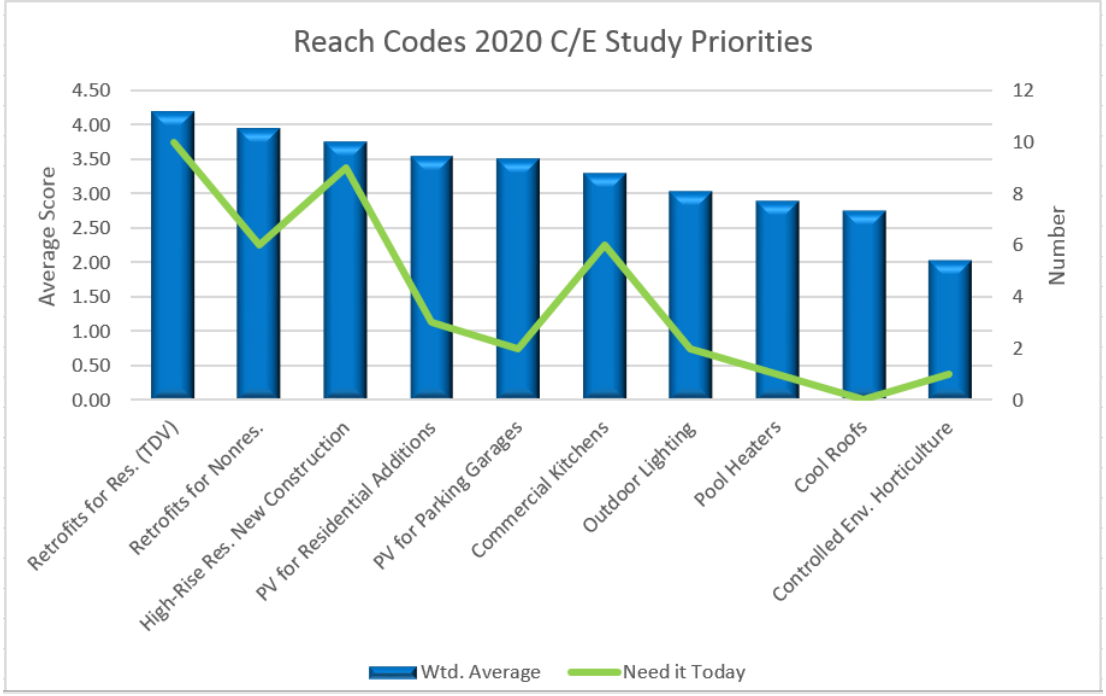
Q: Have any California communities adopted Water+Energy provisions successfully?

A: Indeed, Santa Monica has adopted a water neutrality ordinance, San Francisco has implemented an onsite re-use provision and San Jose has passed a water+energy performance ordinance.

Q: Are there any guidelines that local jurisdictions can use to identify potential mandatory measures that save water for their own communities?

A: Yes, a range of measures was originally developed by the Santa Clara County Water Efficient New Development Task Force in 2015-2016. The Task Force included representatives from Valley Water District, City of Morgan Hill, Santa Clara County, City of Cupertino, City of Mountain View, City of Palo Alto, City of Sunnyvale, Sustainable Silicon Valley, and Joint Venture Silicon Valley. The cost-effectiveness study, model ordinance, and model council report associated with these measures are available here.

Our Reach Codes team is also available to provide technical assistance to city, county, and water districts personnel. Visit us at the California Irrigation Institute Annual Conference, January 27-28, 2020 in Sacramento.



REACH CODE TEAM 2020 RESEARCH PRIORITIES

In order to better prioritize our research efforts during 2020, the Reach Codes team conducted a survey during the month of December, directed toward gathering the preferences of city and county staff considering reach code development. The survey also probed the urgency of research needs.

Survey responses were excellent, with a response rate of nearly 20%. Overall, the top preference for developing cost-effectiveness analyses were focused on retrofit provisions, for both residential and nonresidential sectors. The urgency of this

focus was striking as well, with many respondents indicating they would value cost-effectiveness research as soon as possible. The most-requested topic was cost-effectiveness research for residential retrofits (TDV).

Following the interest and urgency of this set of preferences was a significant interest in aspects of photovoltaics (specifically for parking garages and residential additions), as well as commercial kitchens.

The final grouping indicated interest in specific systems or specialty applications, including pool heaters, cool roofs, outdoor lighting and indoor controlled horticulture.

A complete look at survey results is available here.

While the Reach Codes team will align its research priorities with this stakeholder information, local jurisdictions requiring assistance with other topics are always welcome to contact the Reach Codes team directly. Many jurisdiction-specific technical assistance projects generate resources that may be of value to other, similarly situated jurisdictions.

Many respondents also commented that cost-effectiveness research on all-electric or other electrification measures would be greatly valued.

To comment on research priorities directly to the Reach Codes team, or to request assistance on a specific topic, please email the team.

THE PROCESS BEHIND THE PROVISIONS: CITY OF FREMONT

The City of Fremont was an early adopter of reach codes, with provisions in 2017 adopted that reached beyond Title 24-2016. These included:

- mandatory installation of solar photovoltaic (PV) systems in new residential developments
- mandatory installation of electric vehicle (EV) charging stations with necessary electrical wiring, equipment, and chargers in new construction and major retrofits in residential and non-residential developments
- decreased maximum allowable wattage of outdoor lighting for new commercial or major retrofits.

These were adopted by the Fremont City Council in May 2017 and approved by the California Energy Commission in August 2017.

The City has also adopted other sustainability-related codes such as a requirement for car share parking spaces in new residential developments and a solar preservation ordinance requiring that access to existing or future solar energy production be protected from shading by any new development.

Recently, the Reach Codes team sat down with Fremont Sustainability Manager Rachel DiFranco and Director of Community Development Dan Schoenholz to explore the process the City used and what lessons they learned from this earlier reach code cycle.

The city has unique characteristics as the 4th-largest city in the San Francisco Bay Area: a substantial amount of advanced manufacturing, especially within the cleantech and biotech fields; a significant commuting population but also a good deal of industry that attracts workers from neighboring cities. Fremont regularly is voted among the top cities on a variety of topics, including: it is the second best city to raise a family, the fifth best city to find a job, and the seventh greenest city in America, according to WalletHub.

Sustainability is an important City value: the City's General Plan calls for Fremont to be a national example of a "sustainable, strategically urban modern city." In alignment with this vision, the City is currently working to update its existing Climate Action Plan to align with a long-term target of carbon neutrality by 2045. Fremont's Environmental Sustainability Commission, made up of stakeholders from

the development and construction, business, education, and general resident sectors, works closely with City leadership and staff to define and implement various sustainability efforts.

“Perhaps the most important lesson we have learned around reach code requirements is the great importance of flexibility,” noted DiFranco. “We want to be as flexible as possible when designing a measure, to provide City stakeholders with the widest range of compliance opportunities as possible. If a measure is too prescriptive, it may actually stifle the ability of businesses and residents to innovate successfully.”

For instance, the car-sharing requirement was intended as a way to reduce GHG via transportation. However, in practice, developers were often unable to identify car share providers willing to offer service at some developments due to concerns about customer demand. As a result, the City recently modified the requirement to expand compliance options to include shared electric scooters and bicycles.

Schoenholz adds, “conducting outreach to stakeholders is tremendously important. Stakeholder input ensures that our proposals are workable and that we consider alternate pathways to reach our sustainability goals.”

The City is exploring options for a new cycle of reach ordinances and expects to undertake these over the course of the next several months.

OTHER REACH CODE NEWS BRIEFS

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Archives