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## Why Reach Codes: Local Players Driving Statewide Building Standards

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# **WHY REACH CODES?**

**Local Players Driving  
Statewide Building  
Standards**

**San Diego Regional Climate  
Collaborative**

## WHAT ARE REACH CODES?

A reach code is a local amendment to the California Building Standards Code (Title 24, CA Building Code). These local amendments are referred to as reach codes because they exceed—or reach beyond—the state minimum requirements for performance in building design and construction.<sup>1</sup>

### Reach codes can be categorized as:



**Prescriptive:** This approach requires the code to assign minimum acceptable requirements for one or more specific measures. Compliance with prescriptive codes typically involves following a set of rules and calculations to demonstrate compliance with the prescribed standards.<sup>2</sup>



**Performance:** Require buildings perform more efficiently than the Energy Code (Title 24, Part 6) by setting a performance target, allowing for more flexibility in design and construction methods. Compliance with performance reach codes is typically demonstrated through modeling, simulations, or other performance testing.<sup>3</sup>

## WHY TRANSFORM THE BUILDING SECTOR?

The built environment is a major contributor to California's greenhouse gas (GHG) emissions which accelerates the impacts of climate change. Commercial buildings and residential homes require large electricity demands, including for heating and cooling, as well as to support fossil fuel powered appliances—all contributing to increased GHG emissions. In California, buildings account for 25% of statewide GHG emissions, making the building sector the second largest statewide contributor after the transportation sector. In highly urbanized areas such as the San Diego region, buildings can account for up to 70% of GHG emissions.<sup>4</sup> Local jurisdictions have the responsibility to meet carbon reduction targets outlined by their Climate Action Plans, governing documents, and state standards. Reach codes present primary implementation pathways and a suite of opportunities for jurisdictions to meet these reduction targets.

Understanding the relationship between energy and carbon within building performance is necessary for successful reach code development, adoption, and implementation. Reach codes can be an important piece in improving upon existing codes, especially when it comes to developing local standards that enhance the performance and energy efficiency of existing buildings and new construction. Most commonly, local jurisdictions adopt reach codes that go beyond the CA Energy Code (See SDRCC blogs on [Understanding the California Energy Code](#) and a [Quick Guide to the California Energy Code](#) for more information) to improve building energy efficiency. However, jurisdictions can also consider codes that use GHG mitigation strategies that reduce emissions from the building sector such as: electrification, renewable energy use, onsite renewable energy production, appliance efficiency upgrades, and others.

# WHY SHOULD YOU ADOPT REACH CODES?

Adapting to future Building Standards Code requirements through the use of reach codes for stricter building performance standards enables local jurisdictions to get ahead of state regulations and better prepare their communities to thrive in the face of climate change impacts. Reach codes are an effective climate adaptation policy tool that can help communities better prepare for the impacts of climate change by reducing energy use, energy costs, and GHG emissions. Examples of adaptation focused reach codes include: onsite water reuse in drought vulnerable regions, improving building efficiency standards that positively impact air quality, and energy audits to keep data-informed decision making at the forefront of climate action and reduced energy consumption of the built environment. Reach codes enable jurisdictions to be climate action and decarbonization leaders, and signals to the state in support of more stringent measures on the upcoming CA Building Code adoption.

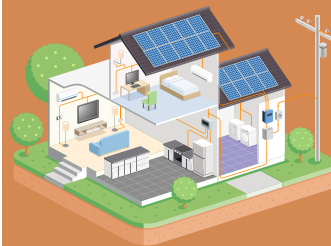
The impact of reach codes go beyond just mitigating GHG emissions; reach codes have a broad impact on communities and neighborhood stabilization. As California faces more heat waves and decreased air quality from extreme weather events such as wildfires, enhanced indoor and outdoor air quality will be an important asset for public health. Creating a more sustainable built environment through implementation and adoption of reach codes allows for necessary resilient, community health equity to be supported. Cross-jurisdictional coordination and collaboration can also be employed to broaden the scope of benefits for reach code ordinances.

# FIVE PATHS TO REACH BEYOND

## STATEWIDE REACH CODES PROGRAM

### BUILDING EFFICIENCY & RENEWABLES

Higher efficiency, photovoltaic systems, electrification measures, and measure-specific requirements.

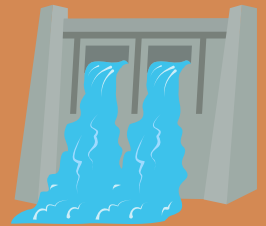


### ELECTRIFICATION

Enables measures such as electrical panel upgrades or prewiring for electric vehicles or appliances likely to be installed in the future.

### ENERGY PLUS WATER

Measures requiring indoor and/or outdoor water conservation that also save energy.



### INFORMATION DISCLOSURE

Energy audits & benchmarking to measure progress and accountability for carbon reduction targets.

### PROCESS LOADS

Activities related to manufacturing, industrial or commercial processes and services



FIND OUT MORE ON HOW TO REACH BEYOND AT

[www.localenergycodes.com](http://www.localenergycodes.com)



## DEVELOPING & ADOPTING LOCAL REACH CODES

The development of a local reach code is guided through a **seven step process** and can be integrated as part of a city's climate action plan, local hazard mitigation plan, climate adaptation plan, or other related planning documents. It is important that the initial preparation and planning process of a reach code is informed by existing state and local resources, and it will need to clearly abide by the amended CA Building Code's compliance requirements. Jurisdiction staff are heavily involved in the development of a reach code ordinance and have the ability to approach the process in a way that suits their region. Thus, it is crucial that the needs of community member stakeholders inform the draft policy of a reach code to identify the net positive impact it will have on both the environment and the community. Key decision makers, such as city councils, community planning groups, and governing boards should work closely with local jurisdiction staff to translate data into tangible policy outputs.

Although reach codes can be adopted at any time, it is recommended for local jurisdictions to coordinate the adoption of reach codes with that of the triennial Building Standards Code cycle, and have them take effect as the new statewide standards begin (January 1st). If a jurisdiction adopts the reach code that amends the Energy Code, some of the legal requirements will vary. Energy reach codes will have to be approved by the California Energy Commission (CEC) to ensure it is at least as stringent as the Energy Code, and must be re-approved with each triennial Energy Code update. All adopted ordinances amending the Building Standards Code must be

filed with the California Building Standards Commission (CSBC) as a final step before a jurisdiction can enforce the reach code. The implementation process relies heavily on supporting stakeholders and building owners to comply with the adopted reach code standards.

### TIPS FOR A STREAMLINED APPROACH TO REACH CODE IMPLEMENTATION

- 1** Starting the cost effectiveness studies early helps to streamline the reach code adoption process. Use the **Cost Effectiveness Explorer** for new and existing residential and nonresidential buildings studies.
- 2** Obtain early and frequent input from community stakeholders through inclusive, accessible community engagement.
- 3** Involve the CEC in the primary planning process of your energy reach code to support an integrated approach in partnership with the state to avoid problems or delays down the road.

## CHALLENGES OF DEVELOPING & IMPLEMENTING REACH CODES

The building stock for most local jurisdictions consists of existing buildings, rather than new construction. To reach state and local GHG emission reduction goals, there is a need to improve the rate of reach code compliance for existing buildings. With new building construction, it is much easier to get ahead of state energy code regulations through design and construction that go beyond existing compliance standards to obtain high-performance building design and energy efficient operational approaches. There is a gap, however, in reach code resources that communicate streamlined implementation opportunities and policy guidance to stakeholders on the existing building design modifications and operational updates that are needed to address energy use and reduce GHG emissions.

There is a deep connection between a reach code's success and community-wide behavioral change. The more involvement and transparency there is between stakeholders and local government, the more opportunity there is to set clear expectations and opportunities for stakeholders to actively support reach code implementation. Stakeholder engagement is also important from an environmental justice standpoint, particularly in historically disadvantaged communities that already bear the biggest burdens from climate change impacts—this disproportionate harm is exacerbated when certain groups are excluded from the decision making and community engagement processes.

Local jurisdictions must prioritize a holistic approach to community engagement to enhance education and transparency on reach code development processes to remain community informed, avoid green gentrification through increased property taxes that push out middle and low income groups and effectively translate data to stakeholder engagement spaces. One option for inclusive stakeholder engagement is for a jurisdiction to form a Community Advisory Board that is dedicated to being involved in the reach code's development and implementation process.



# ENHANCING & PROMOTING BUILDING SUSTAINABILITY THROUGH REACH CODES

Reach codes provide jurisdictions with a pathway that advances sustainability in new construction and supports future statewide adoption of more stringent standards. By going beyond the CA Building Code, jurisdictions will improve energy performance and GHG emissions. Reach codes encourage a comprehensive and holistic approach to sustainability. Reach codes enable communities to thrive without compromising their limited resources while simultaneously emphasize resource conservation and long-term community well-being, sustainably.

Implementing reach codes offers several benefits for local governments. They help jurisdictions conserve resources by setting stringent standards for new construction projects. This includes efficient use of water, materials, and land, reducing strain on local ecosystems. Reach codes also incentivize the use of renewable energy sources, and other sustainable practices.

Promoting the development of high-performance buildings in local jurisdictions optimizes energy efficiency, indoor air quality, and occupant comfort. Incorporating stringent standards for new construction promotes the development of buildings that enhance the well-being of residents and improve the overall quality of life for communities.



## SOURCES

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*The San Diego Regional Climate Collaborative was established in 2011 as a network for public agencies to advance climate change solutions and is currently housed at The Nonprofit Institute at the University of San Diego.*