

REACH CODE NEWS BRIEF: MARCH 2024

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JUST PUBLISHED! NEW EV CHARGING FACT SHEETS FOR INTERVENING CYCLE CALGREEN REQUIREMENTS ARE NOW AVAILABLE



New Fact Sheets are available for the intervening cycle requirements to help designers and stakeholders stay informed about the latest changes. These requirements will become effective July 1, 2024.

EV Light Duty

This comprehensive document provides background information outlining the diverse types of EV spaces and definitions, as well as the specific requirements for different building types (including but not limited to single-family, duplex, townhome, multifamily, and hotel/motel – as well as nonresidential building types). Sample diagrams of parking layouts and space requirements for compliance are also included to help users visualize how the new requirements could impact their respective projects.

EV Medium & Heavy Duty

This factsheet supports designers, builders, and other stakeholders of retail, grocery, and warehouse projects to understand the rationale behind the new requirements, clearly identify if the requirements apply to their projects, and view the electrical capacity and other requirements and specifications mandated in CALGreen based on their project's characteristics. Finally, the factsheet outlines the cases where exceptions may be made and provides resources to dig deeper into the topic area.

These are available on the [Local Energy Codes website](#) at no charge.

UPCOMING EVENTS

- April 2:** 3C-REN webinar: Introduction to Passive House Standard
- April 4:** Multi-sponsor event: Water Conservation Showcase. San Ramon
- April 4:** USC Dornsife Center for the Political Future: 4th Annual Climate Forward Conference. Los Angeles
- April 10:** California Energy Commission Business Meeting
- April 16:** California Energy Commission: 2025 SB 100 Report Non-Energy Benefits Workshop. Hybrid
- April 21-27:** SF Climate Week. San Francisco
- April 22:** Earth Day
- April 25:** I-REN Webinar: Unlocking Savings for School Facilities with the Energy Code
- April 25:** 3C-REN High Performance Fundamentals Webinar Series: Heat Pump Fundamentals: Space Conditioning and Water Heating – Class 4



NEW THIS MONTH!



ENERGY PLUS WATER REACH CODE OPPORTUNITIES: ROUNDUP AND RESOURCES

As the State Water Resources Control Board works toward finalizing a new [regulatory framework](#) to make Conservation a California Way of Life, this may be the perfect time to explore energy plus water reach code opportunities! Especially in light of recent code developments, local jurisdictions have new approaches to consider that will benefit their residents. The recent [BayREN Regional Forum](#) held on March 21 explored this topic, and next week's [Water Conservation Showcase](#) will also explore water saving opportunities.

For local jurisdictions, three approaches offer promising opportunities:

- Right-sizing plumbing in residential buildings
- Dual-drainage plumbing in residential buildings (also known as graywater pre-plumbing)
- Water neutral new development (also known as water offsets)

Right-sizing Plumbing in Residential Buildings

Effective July 1, 2024, the California Plumbing Code (CPC) will include the Uniform Plumbing Code (UPC) Appendix M as an alternative peak water demand sizing methodology to the standard practice approach, which is based on the Hunter's curve developed in 1940. The statewide adoption eliminates the need to petition individual local jurisdictions to allow the use of CPC Appendix M, known as the Water Demand Calculator. The peak water demands derived using the Water Demand Calculator inform the recommended diameter of water supply pipes in new single family and multifamily buildings. The alternative approach of using CPC Appendix M methodology in conjunction with CPC Appendix A for pipe sizing yields lower design flow rates and smaller distribution piping when compared to using only CPC Appendix A (standard practice).

The Water Demand Calculator offers two types of savings for residential construction. Construction savings are derived from smaller diameter pipes and fittings, valves, pumps, and other equipment; smaller inside diameter pipe insulation, and smaller water service entrance size, which allows smaller water meter size with lower connection fees and higher meter resolution to capture leaks and very low flows. Operational cost savings, which will continue for the life of the building, result from water savings due to faster hot water delivery, producing smaller monthly water service charges and lower associated volumetric sewer charges; energy savings due to decreased heat loss in the hot water distribution system, particularly in multifamily buildings with a recirculation system; and embedded energy savings for the water and wastewater utilities due to customer indoor water savings.

The statewide Reach Codes program has published an updated [Report](#) and [Executive Summary](#) outlining these benefits, as well as a newly updated [Fact Sheet](#). In addition to these resources, the International Association of Plumbing & Mechanical Officials (IAPMO) has developed a suite of resources on the [Water Demand Calculator](#) specifically for California.

Dual-drainage Plumbing in Residential Buildings

Graywater pre-plumbing prepares communities for drought by lowering the costs and barriers for future installation and use of graywater irrigation systems. This collaborative effort, featured in our [September 2020 News Brief](#), was spearheaded by [Greywater Action](#), [California Onsite Water Association](#), [Ecology Action](#), [Central Coast Greywater Alliance \(CCGA\)](#), and the [Alliance for Water Efficiency](#), focused on developing model ordinance language to simplify adoption by local jurisdictions. Published in 2020, the [Drought-Ready Construction model ordinance](#) covers dual drainage plumbing as well as dual supply plumbing in residential buildings. The companion [Guidance on Ordinance Compliance in Illustrations](#) published in 2021 provides a useful implementation resource.

The graywater pre-plumbing component of the model ordinance and the illustrated guidance document are expected to become a new Appendix F in IAPMO's forthcoming 2023 Water Efficiency and Sanitation Standard for the Built Environment ([WE*Stand](#)). The Gray Water Ready Plumbing Task Group that was formed as part of the 2023 WE*Stand code development process further refined the language in the published model ordinance and the illustrated guidance document. The public review phase for the forthcoming 2023 WE*Stand is about to conclude, with comments due April 29, 2024. The 2023 WE*Stand with the new Appendix F is expected to be published later in 2024.

Interested jurisdictions can also obtain additional assistance by contacting the collaborating organizations or by connecting with California communities that have already adopted a similar graywater pre-plumbing policy (City of Culver City, City of Encinitas, City of Los Angeles, and City of Portola Valley).

Water Neutral New Development

This approach utilizes water offsets to enable growth without increasing system-wide water consumption across a community or a water supply service area. It can be a combination of on-site or off-site water efficiency and may help avoid building moratoriums in water-constrained communities. The [Fronrunner: City of Santa Monica Water Neutrality Program](#) features an approach like this.

The [Net Blue Initiative](#), a collaborative initiative of the [Alliance for Water Efficiency \(AWE\)](#), the [Environmental Law Institute \(ELI\)](#), and [River Network](#), has developed a toolkit to assist local jurisdictions with policy development in this area. The toolkit includes an ordinance development tool and associated user guide, offset methodology workbook and associated user guide, as well as example ordinances and outreach resources. The ordinance development tool allows jurisdictions to create a customized policy that makes sense to a particular community. The Net Blue Initiative collaborated with seven partner cities around the United States to vet the toolkit.

Other California communities that have developed similar policies include the California Water Service Company (the largest investor-owned water utility in the West), the Cambria Community Services District, City of Lompoc, City of Morro Bay, City of Napa, City of Santa Monica, City of St. Helena, East Bay Municipal Utility District, Monterey Peninsula Water Management District, San Luis Obispo County, and Soquel Creek Water District.



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