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2022

Understanding California's 2022 Energy Code: Blog 1

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Medina, Gabriella and Berry, Darbi, "Understanding California's 2022 Energy Code: Blog 1" (2022). *San Diego Regional Climate Collaborative*. 16.

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**Climate
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UNDERSTANDING CALIFORNIA'S 2022 ENERGY CODE

San Diego Regional Climate Collaborative

THE CALIFORNIA ENERGY CODE

When thinking about the built environment, it is easy to overlook the influence structures have on our communities' quality of life. Buildings are relics of the past or symbols of modernity. They are tangible evidence of our society's investment in people's health, the environment, and a resilient economy. Buildings play a crucial role over energy usage, urban heat impacts, and overall greenhouse gas emissions. In California, businesses and homes account for 70% of the state's energy usage and a quarter of the state's greenhouse gas emissions.¹ To mitigate the environmental impact of infrastructure, the California Energy Commission (CEC) 2022 Building Energy Efficiency Standards (Energy Code; Title 24, Part 6) mandates the compliance standards that new and existing buildings must reach, and aids the state in regulating the overall efficiency of buildings.

The Energy Code is updated every three years to ensure that the design construction of current and future structures is providing the maximum health, safety, and environmental benefits to industry and users.² The building sector is a gateway for regional climate adaptation and the Energy Code provides navigable pathways for energy resilience strategies to be put into action.

With the 2022 California Energy Code going into effect on January 1, 2023, both the public and private sectors have this year to prepare to comply with the updated standards and regulations. Overall, the Energy Code provides direction for clean energy principles and increases load capacity, along with energy storage and output flexibility by eliminating unnecessary and wasteful energy consumption.³



LOCAL IMPLICATIONS OF THE CALIFORNIA ENERGY CODE

Many jurisdictions across the San Diego region have adopted Climate Action Plans (CAPs) which outline goals and targets for reducing GHG emissions. Many of these plans include strategies focused on energy efficiency in new and existing buildings (See SDRCC's Storymap on Climate Leadership in the San Diego Region). Meeting many of these progressive climate goals will be largely impacted by our region's ability to operationalize clean energy strategies, plan proactively for future regulations, and effectively – yet equitably – update existing infrastructure to go beyond state level compliance standards. To do this, the San Diego region must create operational frameworks and pathways for its building sector to decarbonize, electrify, and contribute to regional energy resilience through coordinated and collaborative efforts.

Building Type Reorganization

★ 2019 Energy Code:



★ 2022 Energy Code:



Energy Code Ace. Building Type Reorganization. (2022 Title 24, Part 6 Essentials – Residential Standards: What's New Participant Workbook, 2021).

RATING REORGANIZATION

For 2022, there has also been a crucial update to the way the CEC is conducting building energy efficiency ratings. The 2019 Energy Code standardized the Energy Design Rating (EDR Score) to score the overall energy efficiency of a building. The variables included in the Energy Design Rating were: EDR_e (energy efficiency) and EDR_t (total energy use including photovoltaic systems and system flexibility).

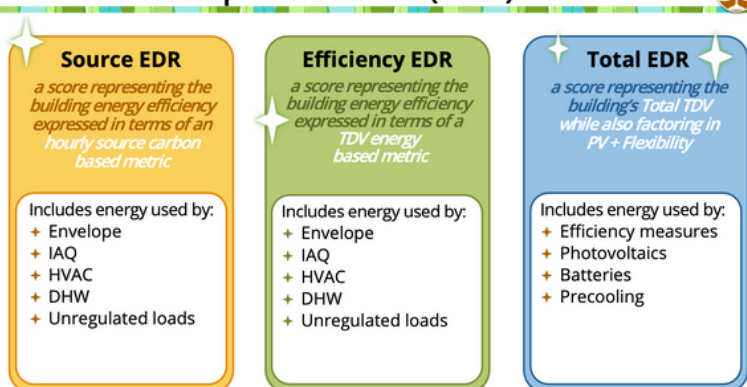
In the 2022 Energy Code, the EDR Score has added the variable EDRs - a source energy metric to measure energy consumption at the building, not at the power plant.⁶ This is a very key change to how the industry gauges building energy efficiency ratings as this source metric offers a strong carbon representation with directly measuring building emissions. The 2022 update to the EDR Score system was completed with a new mandate that all three of these EDR ratings (EDR_e, EDR_t, and EDRs) need to each be lower or equal to state standards for a building to be deemed in compliance with the Energy Code.⁷

BUILDING TYPE REORGANIZATION

A significant update to the 2022 California Energy Code is the building type reorganization.⁸ In past years, the two compliance manuals offered for the Energy Code were for building types classified under “Residential” and “Nonresidential” categories. In the 2019 California Energy Code, single family and low-rise multifamily structures are both under the “Residential” section while nonresidential, hotel/motel, and high-rise multifamily structures are grouped under the “Nonresidential” section. The 2022 California Energy Code creates an entirely new section of the code - uncoupling multifamily structures with residential and nonresidential categories and consolidating multifamily provisions into a set of dedicated chapters.⁹

For the 2022 Energy Code, new compliance standards are categorized by “Single Family” which includes low-rise residential, “Multifamily” which now includes low-rise *and* high-rise multifamily along with common areas, and “Nonresidential”, which includes hotel/motel and nonresidential buildings.

EDR as a Compliance Metric (2022)



A building complies ONLY if **all three** compliance scores are met (each Proposed Design score is **lower or equal** to Standard Design score)

Energy Code Ace. Building Type Reorganization. (2022 Title 24, Part 6 Essentials – Residential Standards: What's New Participant Workbook, 2021).

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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.