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# Quick Guide to the 2022 Energy Code: Blog 2

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# QUICK GUIDE TO THE 2022 ENERGY CODE

**San Diego Regional Climate Collaborative**

## WHAT TO EXPECT

There are a wide range of updates to the 2022 Energy Code; however, there are four categories of top priority for industry professionals and end-use stakeholders as California strengthens compliance standards: electric heat pump technology, electric-ready requirements, solar photovoltaic systems and battery storage standards, and stronger ventilation standards.

## 1. ELECTRIC HEAT PUMP REQUIREMENTS

Homeowners and property owners must prioritize electric heat pumps when upgrading from traditional HVACs and water heaters. This will increase a building's overall efficiency and allows for load flexibility; all while being cost competitive with alternative gas-powered appliances.[1] If an HVAC system or classic water heater in a home or building meets the end of its life term, single-family homes, apartment buildings, other qualifying multi-family homes, and select business types will need to comply with these new heat pump standards. The San Diego region is currently one of the leading climate zones in California to install electric space heating throughout its residential sector.[2] With region-wide compliance, there is a high opportunity to increase the efficiency of residential systems using electric heat pumps.

## 2. ELECTRIC-READY REQUIREMENTS

The 2022 California Energy Code makes the state the first in the country to incentivize electric ready requirements for single family homes. The electric readiness requirements apply when natural gas or propane equipment is used for space heating, water heating, cooking or clothes drying.[3] Specifically, the new requirements leave dedicated electrical circuits for single family homes in space heating, cooking, clothes drying, electric vehicle charging and water heating.[4] There are also energy ready storage system requirements for single family homes. These requirements are for new construction and are not applicable to additions or alterations. These requirements are also not applicable when electric equipment is already installed. Multifamily homes need to be electric ready as well in regards to furnaces, cooktops, dryers in units, and dryers in common areas. [5]


California Energy Commission. 2022 Energy Code Benefits. (Building Energy Efficiency Standards Summary, 2021). See: https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf.

## 3. SOLAR PHOTOVOLTAIC (PV) SYSTEMS & BATTERY STORAGE STANDARDS

California has also declared the expansion of solar photovoltaic (PV) systems for increased renewable energy capacity and in turn, new battery storage standards. This coincides with California's push to electrify the building sector by making onsite energy readily available.[6] Strengthening battery storage standards also sets the state up for future success on grid resilience and eliminates reliance on fossil fuel power plants.

## 4. INCREASED VENTILATION STANDARD

The 2022 Energy Code calls for higher ventilation standards to improve indoor air quality. As the state coordinates public health and safety efforts to navigate the COVID-19 global pandemic, benefits of increased air quality come with reduced disease transmission rates and airborne related illnesses. This update also protects people from the effects of air pollution and related respiratory diseases.[7]

***During this push for decarbonization and electrification, the San Diego region must work collaboratively when preparing for these updated compliance standards so energy efficiency benefits can be felt region-wide.***

## LOOKING TOWARDS THE FUTURE

Overall, updates to the 2022 Energy Code are set to make California significantly reduce "Single-family" and "Multifamily & Nonresidential" electricity usage along with greenhouse gas emissions. During this push for decarbonization and electrification, the San Diego region must work collaboratively when preparing for these updated compliance standards so energy efficiency benefits can be felt region-wide. As the San Diego region tackles energy resilience, ensuring proper capacity, resources, and cross-sectoral collaboration are necessary for success. Collectively, we must begin to rethink and reimagine the way our built environment is constructed to ensure a high quality of life for current and future communities.

## SOURCES


1. Energy Code Ace. 2022 Title 24, Part 6 Essentials – Residential Standards – What's New. (Virtual Class, 2021).
2. California Energy Commission. Saturation of Electric Space Heating by Forecasting Climate Zone. (2019 California Residential Appliance Saturation Survey, 2021). See: https://webtools.dnv.com/CA_RASS/Uploads/CEC-200-2021-005-PO.pdf
3. Energy Code Ace. 2022 Title 24, Part 6 Essentials – Residential Standards – What's New. (Virtual Class, 2021).
4. Energy Code Ace. 2022 Title 24, Part 6 Essentials – Residential Standards – What's New. (Virtual Class, 2021).
5. Energy Code Ace. 2022 Title 24, Part 6 Essentials – Residential Standards – What's New. (Virtual Class, 2021).
6. California Energy Commission. Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses. (News Releases, 2021). See: https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0
7. Mathis & Ray.Understanding the Energy Standards Required by California's Title 24. (SIG, 2018). See: https://sigearth.com/understanding-the-energy-standards-required-by-californias-title-24/


*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.*

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