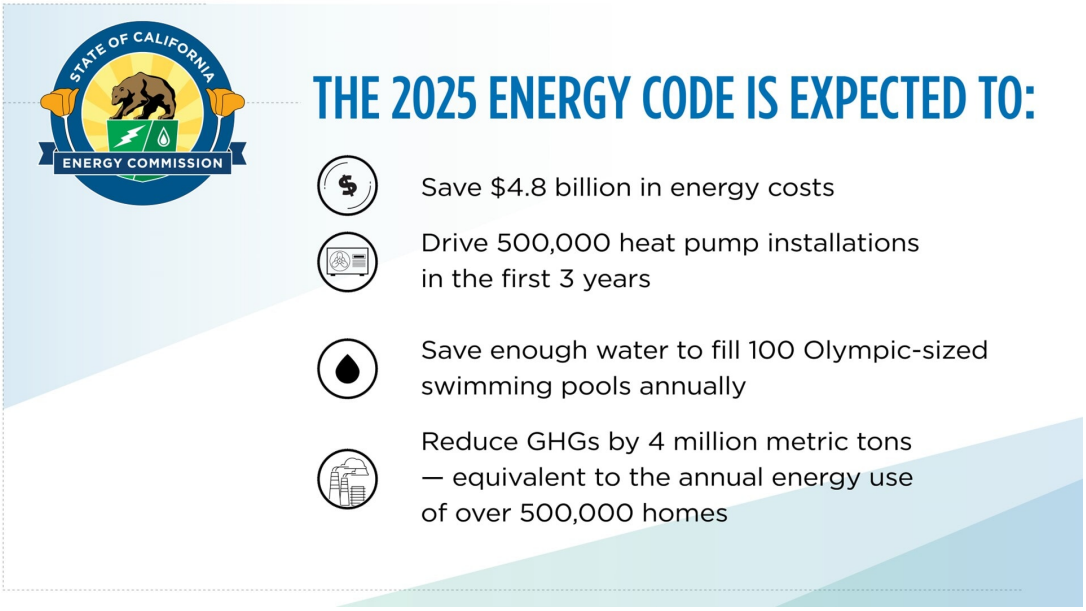
REACH CODE NEWS BRIEF: OCTOBER 2024

SPECIAL EDITION: INTRODUCING THE 2025 ENERGY EFFICIENCY STANDARDS



Last month, the California Energy Commission adopted the 2025 Building Energy Efficiency Standards (Energy Code) for newly constructed buildings, building additions, and alterations to existing buildings. These updates will contribute to California's efforts to decarbonize its buildings as well as providing more than $4.8 billion in estimated statewide energy cost savings over 30 years. The Commission maintains a webpage on the Standards.

One definitional change across the residential and nonresidential provisions is the replacement of Time Dependent Valuation (TDV) as the metric with a new definition, Long-Term System Cost (LSC). This is the CEC projected present value of costs to California's energy systems over a period of 30 years.

The Commission also adopted the voluntary standards within the Energy Efficiency Division of CALGreen (Appendix A4.2 –Residential Voluntary Measures, Energy Efficiency and Appendix A5.2 – Nonresidential Voluntary Measures, Energy Efficiency). The Commission's webpage on CALGreen is available here.

The new standards will become effective January 1, 2026.

The articles below highlight some of the changes and additions to these new standards, as well as point to additional resources that may be available.

UPCOMING EVENTS

November 5: Energy Code Ace training: 2025 Title 24 Part 6 Essentials: Residential Standards What's New

November 6: Energy Code Ace training: 2025 Title 24 Part 6 Essentials: Nonresidential Standards What's New

November 7: BayREN C&S Training: Heat Pump Water Heaters for Building Departments

November 7: Building Decarbonization Coalition: BDC Presents: State of the Union: Post-Election Decarb Outlook

November 13: California Energy Commission Business Meeting

November 13: CivicWell webinar: Innovative Investment Strategies for Climate Resilience

November 14: I-REN C&S Training: 2025 Energy Code Updates with the California Energy Commission

November 14: 3C-REN webinar: Modeling All-Electric Homes in the 2022 Energy Code

November 18: California Department of Water Resources: The Road to SustainabilitySustainable Groundwater Management Act (SGMA) 10-Year Anniversary Event

November 21: BayREN Regional Forum: It's Not Easy Being Green: Workforce Development, Codes, & Decarbonization

OVERVIEW OF 2025 ENERGY CODE AND CALGREEN

NON-RESIDENTIAL ENERGY CODE OVERVIEW

The 2025 standards continue the focus on advancing electrification, strongly encouraging heat pumps for more building types and applications and updating photovoltaic and battery energy storage system requirements. Updates include:

- Introducing prescriptive heat pump standards for select nonresidential building types (when replacing single-zone rooftop units less than 65,000 Btu/h)
- Prescriptively requiring multizone HVAC heat pumps in most climate zones for office and school building types
- Prescriptively requiring heat pump water heaters in schools greater than 25,000 ft2 for most climate zones (CZ 2-15)
- Replacing end-of-life rooftop heating, ventilation, and air-conditioning (HVAC) units of a certain size with heat pumps, for existing retail, schools, offices and libraries, or with an air conditioner with additional efficiency measures
- Establishing electric-ready requirements for commercial kitchens
- Updating solar and storage standards for assembly buildings, including religious worship, sport, and recreation buildings

Energy Code Ace is conducting training sessions on what's new in the nonresidential 2025 Energy Code, with upcoming webinars on November 6, 2024, December 4, 2024, and January 15, 2025.

The 2025 Standards focus on strengthening heat pump requirements for space and water heating with additional focus on envelope and pool heating. Single family new construction highlights include:

- Extending the prescriptive standard for heat pumps for space heating to all climate zones
- Requiring controls to improve performance of heat pumps, including defrost timers and limits on supplementary heat to 35°F and below
- Prescriptively requiring heat pump water heaters in all climate zones
- Adjusting requirements for high-performance windows and walls
- Establishing new mandatory options that encourage heat pumps for heating newly constructed swimming pools and newly installed pool heaters for existing pools

Multi-family new construction highlights include:

- Introducing a prescriptive requirement for sizing water pipes according to CPC Appendix M for central domestic hot water (DHW) systems
- Prescriptively requiring heat pump for water heating equipment serving individual dwelling units in all climate zones
- Mandating electric readiness for central gas water heating systems
- Strengthening envelope provisions including cool roof, wall and fenestration performance

Energy Code Ace is conducting training sessions on what's new in single family and multi-family residential 2025 standards, with upcoming webinars on November 5, 2024 and December 3, 2024.

2025 CALGREEN UPDATES

The CEC proposes and adopts language for the voluntary Energy Efficiency Tiers in Title 24, Part 11 (CALGreen A4.2 and A5.2). The CALGreen amendments, if adopted by a local jurisdiction, increase energy efficiency for residential and non-residential buildings beyond Energy Code requirements by introducing new standards for existing buildings and amending and expanding standards for newly constructed buildings. (Note that cost-effectiveness analysis may be required on some or all of these provisions if a local jurisdiction is evaluating adoption as a reach code.) Highlights include:

- Introducing a prescriptive requirement for either installing a heat pump when replacing an air conditioner in an existing single-family residence or installing an air conditioner with additional efficiency measures
- Strengthening requirements for pool/spa heating
- Requiring heat pump (gas back up allowed) or gas with 60% solar thermal/ recovered energy fraction for nonresidential or multi-family pool/spa alterations
- Updating performance energy targets for single-family new construction
- Updating outdoor lighting standards for multi-family and non-residential, with new requirements for freestanding, pole- and arm-mounted luminaires

The Statewide Codes and Standards team, in collaboration with the California Building Standards Commission (CBSC), the California Division of the State Architect (DSA)and AIA California maintains a web site, CALGreenInfo.com that houses resources to help stakeholders comply with the code. Examples include AIA California's new CALGreen Checklist and the CBSC's video presentation on CALGreen Nonresidential requirements. Check back often, as the team continues to add resources to this online resource as they become available.

The CBSC is expected to adopt and finalize the 2025 California Building Code package mid-December.

This program is funded by California utility customers and administered by Pacific Gas and Electric Company, San Diego Gas & Electric Company (SDG&E®) and Southern California Edison Company under the auspices of the California Public Utilities Commission and in support of the California Energy Commission.

OTHER REACH CODE NEWS BRIEFS

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