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ACKNOWLEDGMENTS

The Building Energy Efficiency Standards (Energy Standards) were adopted and put into effect in 1978, and have been updated periodically in the intervening years. The Energy Standards are a unique California asset that have placed the state on the forefront of energy efficiency, sustainability, energy independence, and climate change issues. These standards also have provided a template for national standards within the United States, as well as for other countries around the globe. They have benefitted from the conscientious involvement and enduring commitment to the public good of many persons and organizations along the way. The 2022 Energy Standards development and adoption process continues a longstanding practice of maintaining the standards with technical rigor, challenging but achievable design and construction practices, public engagement, and full consideration of the views of stakeholders.

The 2022 Energy Standards revision and the supporting documents were conceptualized, evaluated, and justified through the excellent work of California Energy Commission (CEC) staff and consultants working under contract to the CEC, supported by the utility-organized Codes and Standards Enhancement (CASE) Initiative, and shaped by the participation of more than 150 stakeholders and the contribution of more than 1,300 formal public comments.

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ABSTRACT

California's Building Energy Efficiency Standards were adopted in 1976 and have been updated periodically as directed by statute. In 1975, the Department of Housing and Community Development adopted rudimentary energy conservation standards under State Housing Law authority that were a precursor to the first generation of the standards. However, the Warren-Alquist Act¹ was passed one year earlier with explicit direction to the California Energy Commission (CEC), formally titled the State Energy Resources Conservation and Development Commission, to adopt and implement the standards. The CEC's statute created separate authority and specific direction regarding what the standards are to address, what criteria are to be met in developing the Standards, and what implementation tools, aids, and technical assistance are provided.

The standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. Public Resources Code Sections 25402 subdivisions (a)-(b) and 25402.1 emphasize the importance of building design and construction flexibility by requiring the CEC to establish performance standards, in the form of an "energy budget" in terms of the energy consumption per square foot of floor space.

Public Resources Code Section 25402.1 requires the CEC to support the performance standards with compliance tools for builders and building designers. The Alternative Calculation Method (ACM) Approval Manual adopted by regulation as an appendix of the Standards establishes requirements for input, output and calculational uniformity in the computer programs used to demonstrate compliance with the Standards. The CEC develops and makes publicly available free, public domain building modeling software to enable compliance based on modeling of building efficiency and performance. The ACM Approval Manual also includes provisions for private firms seeking to develop compliance software for approval by the CEC, which further encourages flexibility and innovation.

¹ [Warren-Alquist Act 2022 Edition](#)

Keywords:

California Energy Commission	mandatory	envelope insulation
California Building Code	prescriptive	HVAC
California Building Energy Efficiency Standards	performance time-dependent	building commissioning process load
Title 24, Part 6	valuation	refrigeration
2022 Building Energy Efficiency Standards	TDV ducts in conditioned spaces	data center exhaust
Residential	high-performance attics	compressed air
Nonresidential	high-performance walls	acceptance testing
newly constructed	high-efficacy lighting	data collection
additions and alterations to existing buildings	water heating windows	cool roof on-site renewable

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EXECUTIVE SUMMARY

The Compliance Manuals are intended to help plans examiners, inspectors, owners, designers, builders, and energy consultants comply with and enforce California's *2022 Building Energy Efficiency Standards*. These manuals contain information supplemental to the code regulations themselves and contain copies of compliance documents ("forms") used to demonstrate compliance. There are two compliance manuals: one for single-family homes and a second one for nonresidential building and multifamily homes.