



TRI-COUNTY  
REGIONAL ENERGY NETWORK

SAN LUIS OBISPO • SANTA BARBARA • VENTURA

# Navigating the Energy Code

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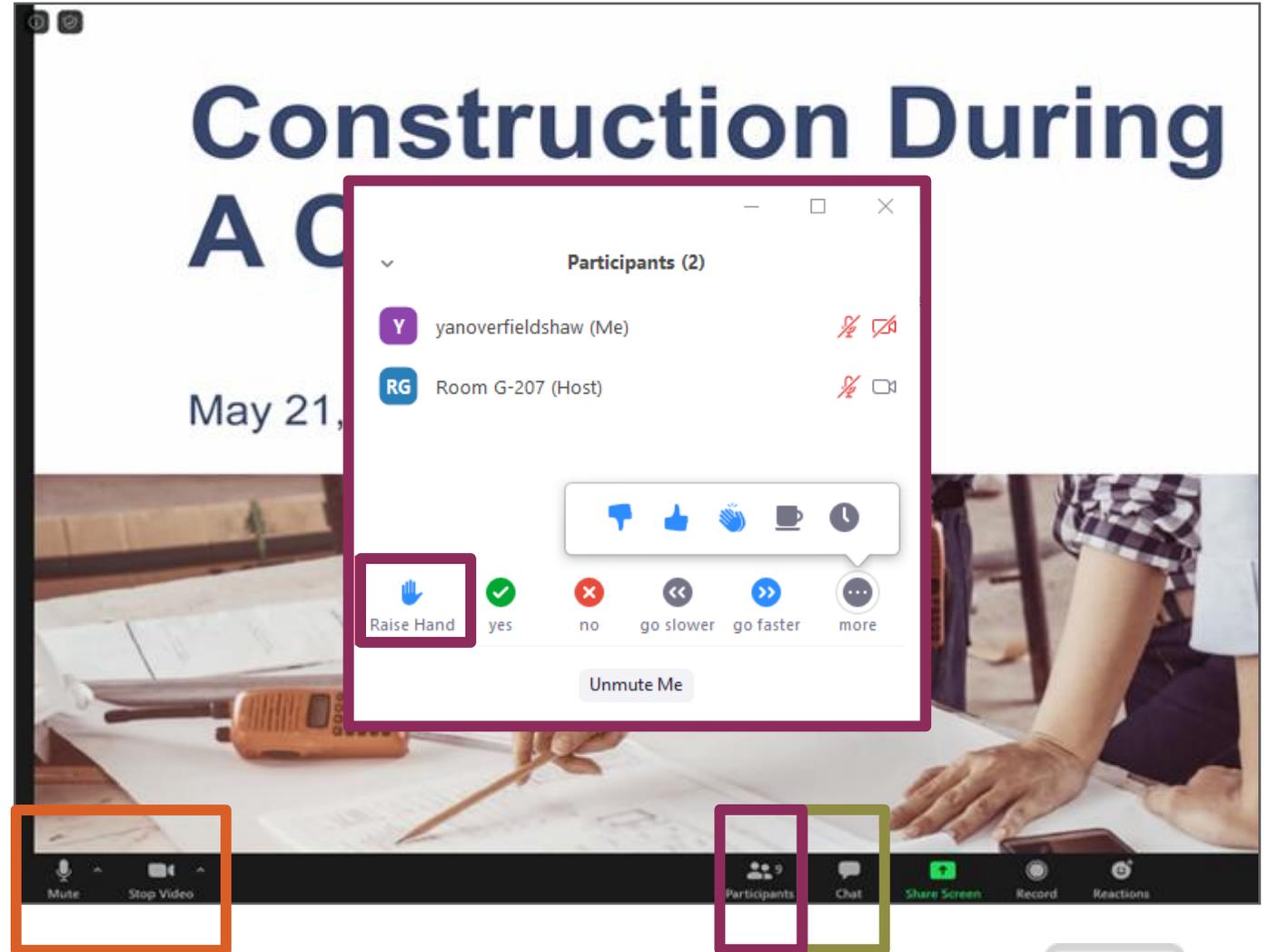
January 22, 2026

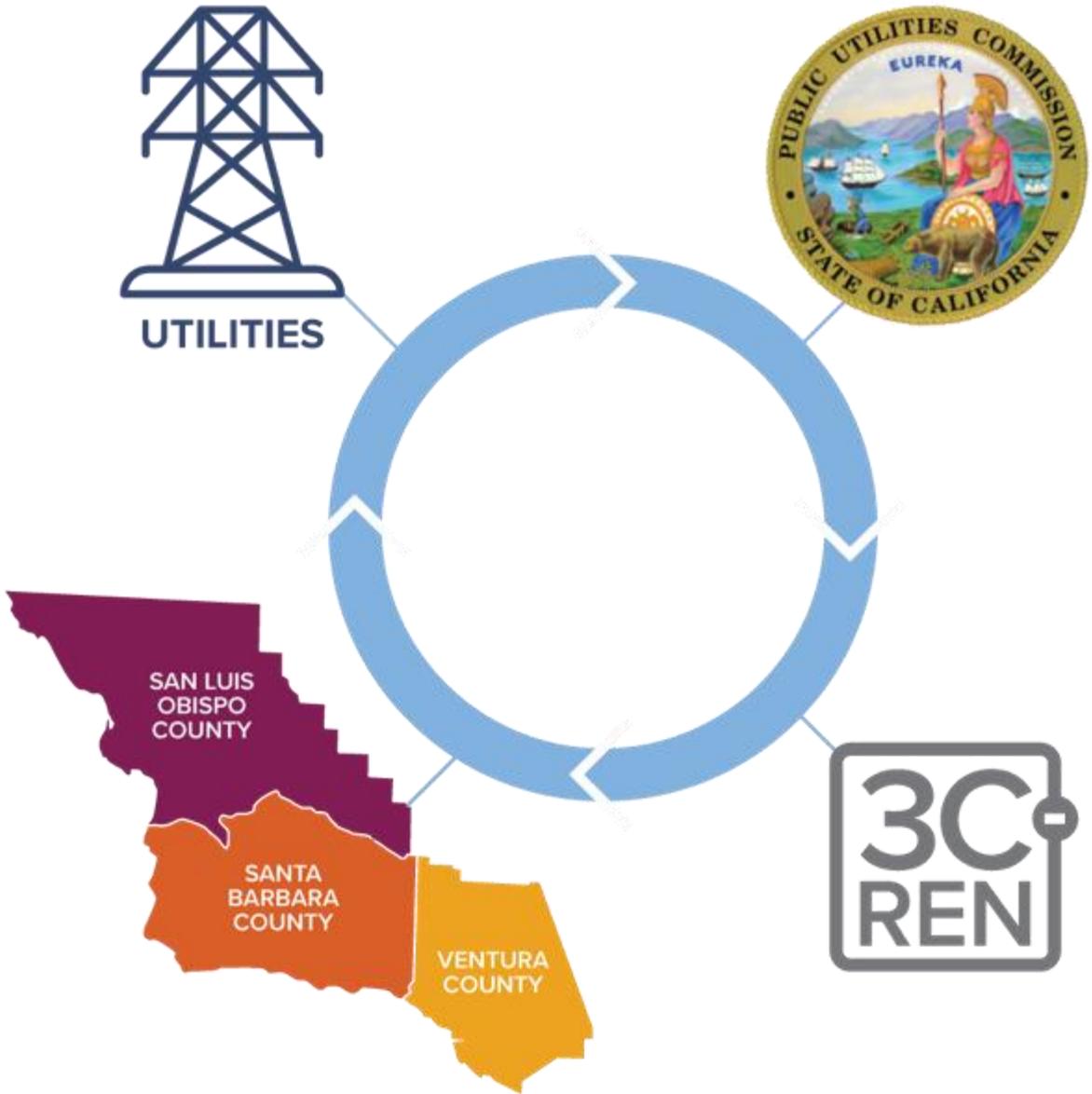


# Before We Begin

Here are some quick reminders:

- Call in? Please **share** full name to confirm attendance
- To receive AIA LUs, you **must attend** at least 80% of the training. Attendance will be verified
- Use the "**Chat**" to share questions or comments
- Slides/recording are **shared** after most events and can be found on 3C-REN's on-demand page
- 3C-REN does **not** allow **AI notetakers**, unless used to accommodate a disability





# Tri-County Regional Energy Network

3C-REN is a collaboration between the tri-counties

Our programs reduce energy use for a more sustainable, equitable and economically vibrant Central Coast

Our free services are funded via the CPUC, bringing ratepayer dollars back to the region



# Our Services

## Incentives



### HOME ENERGY SAVINGS

[3c-ren.org/for-residents](https://3c-ren.org/for-residents)  
[3c-ren.org/multifamily](https://3c-ren.org/multifamily)



### COMMERCIAL ENERGY SAVINGS

[3c-ren.org/commercial](https://3c-ren.org/commercial)

Contractors can enroll at  
[3c-ren.org/contractors](https://3c-ren.org/contractors)

## Training



### BUILDING PERFORMANCE TRAINING

[3c-ren.org/events](https://3c-ren.org/events)  
[3c-ren.org/building](https://3c-ren.org/building)



### ENERGY CODE CONNECT

[3c-ren.org/code](https://3c-ren.org/code)

View past trainings at  
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## Technical Assistance



### AGRICULTURE ENERGY SOLUTIONS

[3c-ren.org/agriculture](https://3c-ren.org/agriculture)



### ENERGY ASSURANCE SERVICES

[3c-ren.org/assurance](https://3c-ren.org/assurance)



# Learning Objectives

If you're new to the energy code (Title 24 Part 6) and looking for a place to start, or just wanting a refresher, this is the class for you! We'll break down the scope and goals of the code, how it's organized, where to find key information for your project and what are some general best practices for successful implementation during design, permitting and construction.

- Understand what the Building Energy Efficiency Standards code is and why we have one in California
- Learn how the energy code is organized and where to find the information you need
- Recognize key energy requirements that can inform building design, plan review and construction decisions
- Learn strategies to communicate energy code requirements to promote successful implementation of energy efficiency and indoor air quality standards.

## Learning Units

- 1.50 AIA LUs will apply for this course
- 0.15 ICC CEUs will apply for this course
- 1.50 CEA CEUs will apply for this course



# Agenda

1. Historical Context
2. California's Energy Code
3. A Closer Look at Title 24 Part 6
4. Tips for Implementation
5. Resources





# Historical Context

# National Energy Crisis and the Oil Embargo

- Oil Embargo in 1973
  - US dependent on OPEC oil
  - Crisis from limited supply of gas
- The embargo helped to change attitude towards energy
  - Speed limit from 70 to 55 mph to save energy
  - Oregon turned off all hot water to state buildings
  - President Jimmy Carter asked everyone to put on a sweater and install solar panels on the roof of the White House (Ronald Reagan removed them at the start of his term)



# California Adopts Legislation Addressing its Energy Future

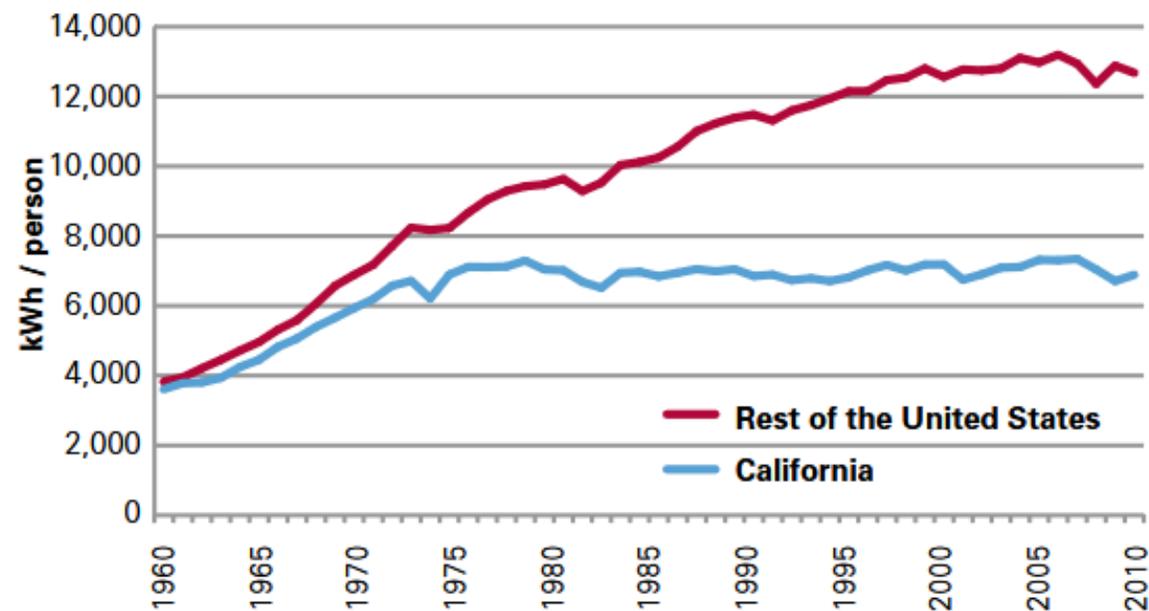
NRDC FACT SHEET

JULY 2013  
FS:13-06-A

## California's Energy Efficiency Success Story: Saving Billions of Dollars and Curbing Tons of Pollution

- California Buildings Standards Commission created the CA Energy Code in 1978
  - To reduce CA energy consumption
  - Development of California Energy Efficiency Standards
- California adopts the most stringent energy code in the US
- Energy consumption in California levels off at 1970 energy consumption while the state grows significantly in population.
  - 1978 pop. About 23 million
  - 2024 pop. About 40 million

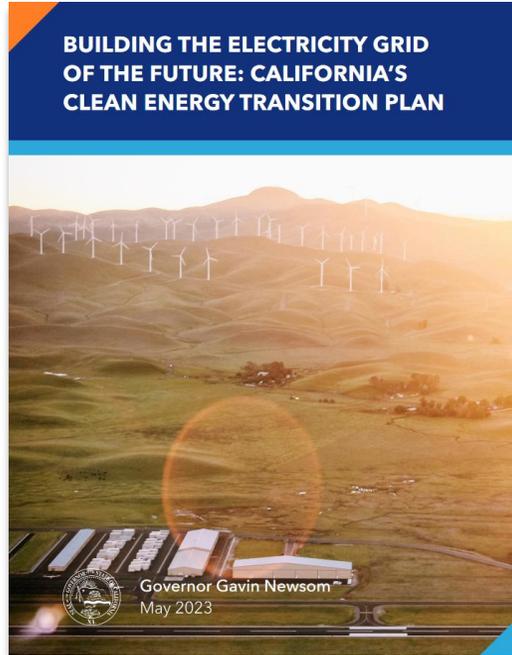
**Figure 1: California Per Capita Electricity Consumption vs. Rest of the Nation**



Source: EIA.<sup>7</sup>

<https://www.nrdc.org/sites/default/files/ca-success-story-FS.pdf>

# California's Plan for Clean Energy Future



<https://www.gov.ca.gov/wp-content/uploads/2023/05/CA-EnergyTransitionPlan.pdf>

## A carbon-free electric grid where:

- **Buildings** are increasingly decarbonized.
- **The Industrial Sector** is powered by clean electricity, and by clean fuels, such as green hydrogen.
- **Transportation** choices are zero-emission and able to plug into the electric grid at places of convenience for all customers



California Air Resources Board (CARB) - Mary D. Nichols Campus



# Big Picture Goals for the 2025 Code

## BY THE NUMBERS

**\$100 BILLION**

avoided energy costs over the last 50 years from the CEC's efficiency standards for buildings and appliances

**70%** amount of California's electricity used by homes and businesses

**25%** amount of the state's total greenhouse gas (GHG) emissions that homes and businesses are responsible for

**\$4.8 BILLION**

statewide energy cost savings expected from the standards for 2025

- Encourage heat pump technology for space and water heating
- Encourage electric-ready building, and updating the requirements
- Expand PV systems and battery storage standards
- Improve indoor air quality by strengthening ventilation standards



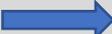


# California's Energy Code

# California Code of Regulations (CCR)

California has 28 **Titles** comprising the rules and regulations e.g. administrative laws, for roughly 200 regulatory agencies. The Office of Administrative Law (OAL) maintains and oversees all but Title 24 Building Standards Code, which falls under the California Building Standards Commission.

Title 1. General Provisions  
Title 2. Administration  
Title 3. Food and Agriculture  
Title 4. Business Regulations  
Title 5. Education  
Title 6. Governor's Regulations (empty)  
Title 7. Harbors and Navigation  
Title 8. Industrial Relations  
Title 9. Rehabilitative and Developmental Services  
Title 10. Investment  
Title 11. Law  
Title 12. Military and Veterans Affairs  
Title 13. Motor Vehicles  
Title 14. Natural Resources

Title 15. Crime Prevention and Corrections  
Title 16. Professional and Vocational Regulations  
Title 17. Public Health  
Title 18. Public Revenues  
Title 19. Public Safety  
 **Title 20. Public Utilities and Energy**  
Title 21. Public Works  
Title 22. Social Security  
Title 23. Waters  
 **Title 24. Building Standards Code**  
 **Title 25. Housing and Community Development**  
Title 26. Toxics  
Title 27. Environmental Protection  
Title 28. Managed Health Care

# Title 24 is comprised of thirteen Parts

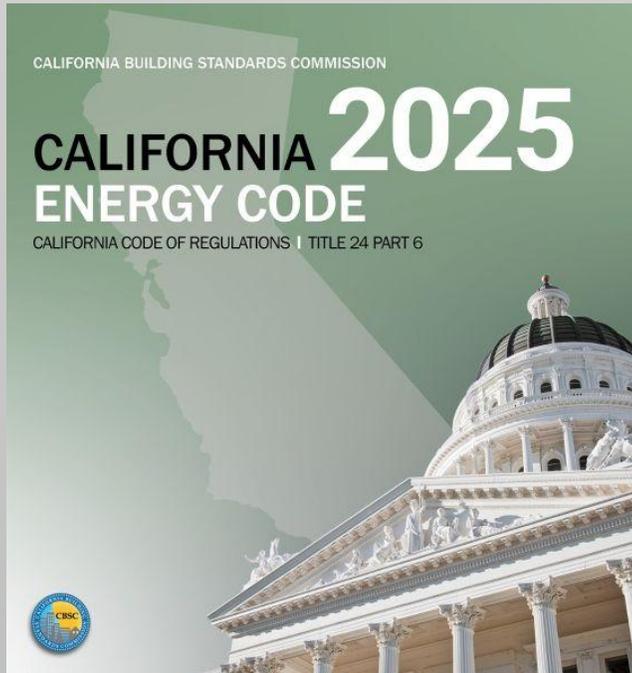


- Part 1 - CA Administrative Code
- Part 2 - CA Building Code
- Part 2.5 - CA Residential Code
- Part 3 - CA Electrical Code
- Part 4 - CA Mechanical Code
- Part 5 - CA Plumbing Code
- Part 6 - CA Energy Code**
- Part 7 - CA Wildland-Urban Interface Code
- Part 8 - CA Historical Building Code
- Part 9 - CA Fire Code
- Part 10 - CA Existing Building Code
- Part 11 - CA Green Building Standards Code
- Part 12 - CA Referenced Standards Code

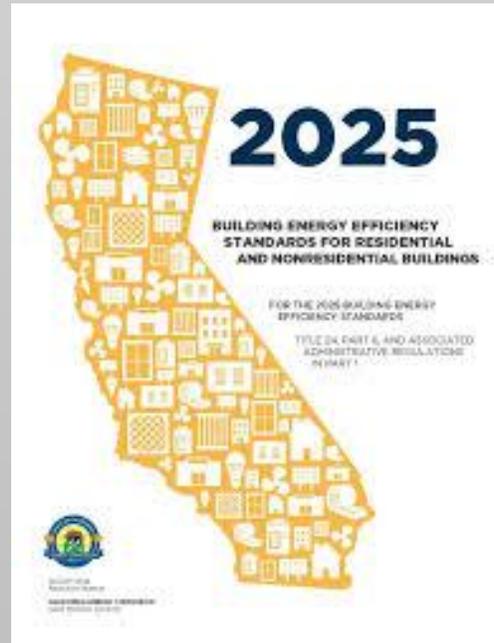


# Available in Print on Online

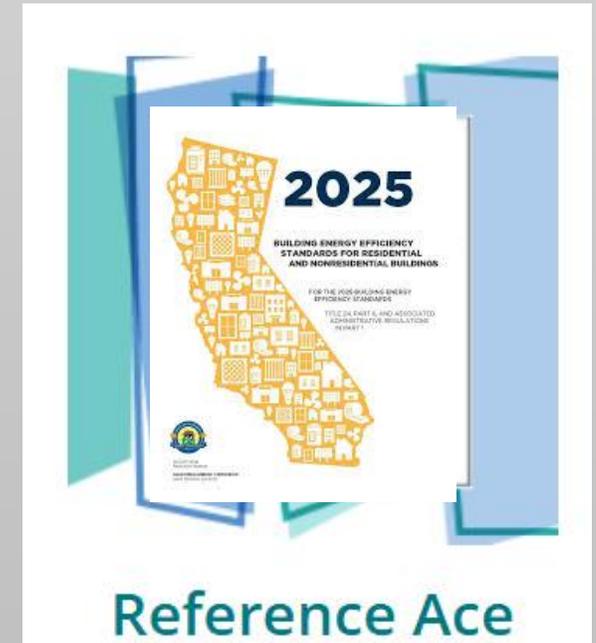
ICC



CA Energy Commission



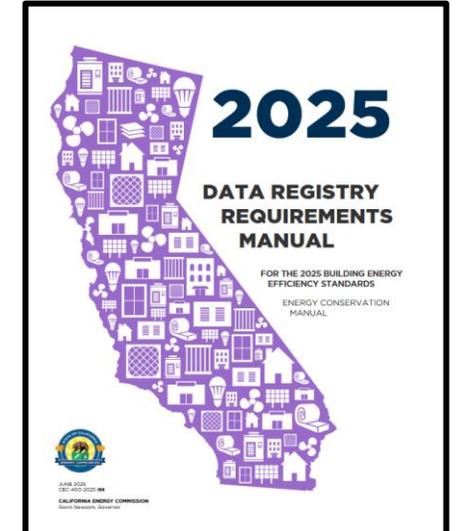
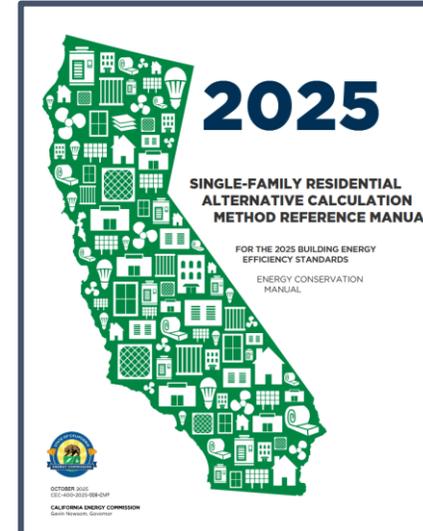
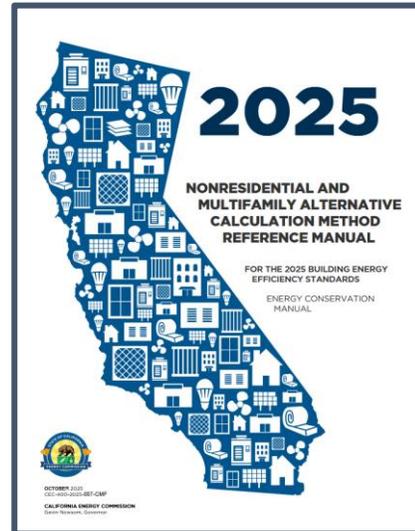
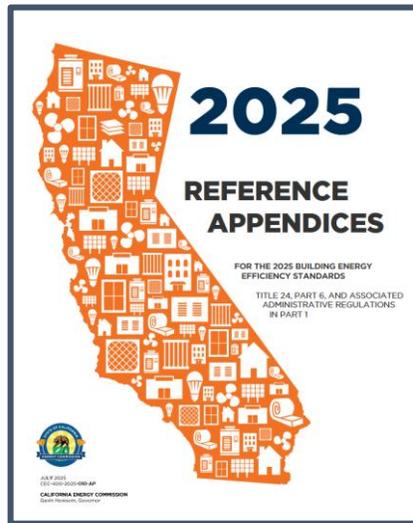
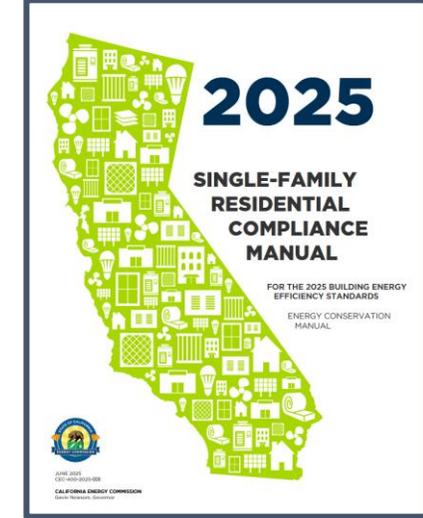
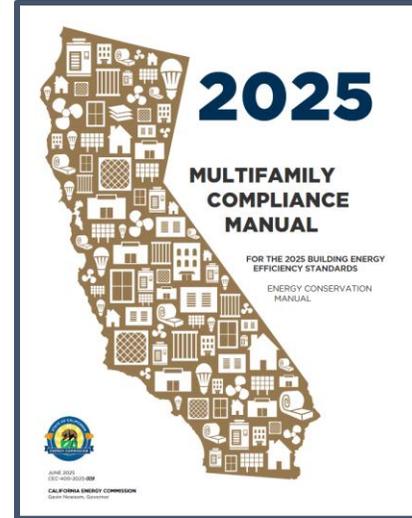
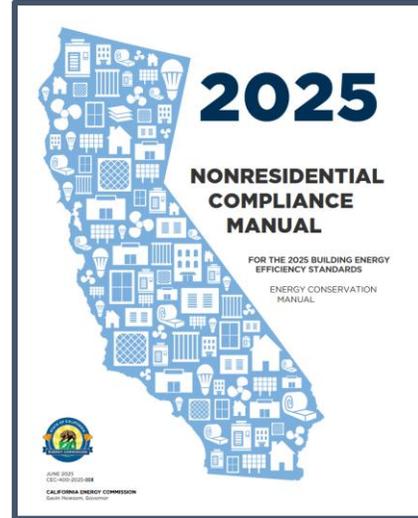
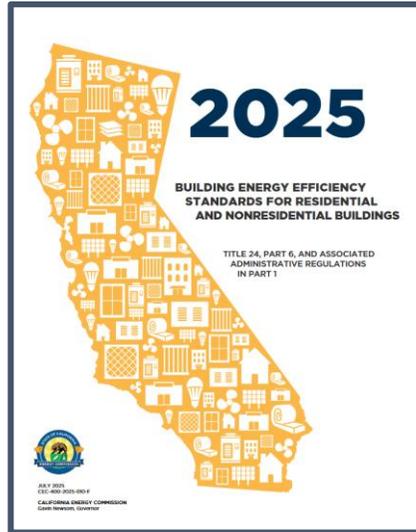
Energy Code Ace



Full set of links and resources at the end!



# Title 24 Part 6, 2025 Standards and Manuals



Full set of links and resources at the end!



# What's Covered in the Energy Code?

- Building Envelope: i.e. Floors, Walls, Windows, and Roof
- Domestic Hot Water
- Heating, Cooling and Ventilation Systems
- Lighting
- Building-Scale Solar Energy and Battery Systems
- Field Verification and Diagnostic Testing
- Covered Process Loads
  - Refrigerated Warehouses
  - Controlled Environment Horticulture
  - Elevators, etc.





# What is *not* covered in the energy code

- Household Appliances (Title 20)
- Small Residential-Scale Heating and Cooling Systems (Title 20)
- Walk-in Coolers and Freezers / Stand-alone Systems (Title 20)
- Refrigerated Warehouses under 3,000 sf
- Agricultural Barns / Warehouses (other than covered process or human occupied)
- Temporary Structures



# Multi-year Adoption Cycle



For more information visit [energy.ca.gov](http://energy.ca.gov)

# Except...

## AB 130: Pause on parts of the 2028 Code Cycle

<b>Residential Standards</b>	<b>2025 Code</b> Effective 1/1/2026  (No 2028 Residential Code)		<b>2031 Code</b> Effective 1/1/2032
<b>Nonresidential Standards</b>	<b>2025 Code</b> Effective 1/1/2026	<b>2028 Code</b> Effective 1/1/2029	<b>2031 Code</b> Effective 1/1/2032

*\*2028 Code...? May depend on substance and breadth of allowed changes*

# Notes and Exceptions

- Includes all R occupancies, including multi-family, SF, townhomes, etc.\*
- No substantive changes for CA for 6 years; administrative clarifications are acceptable
- No local reach codes
  - Exceptions for carry-over of existing reach codes, in place by 9/30/2025
  - Local amendment should “...incentivize all-electric construction and comply with federal law in permitting mixed-fuel residential construction.”\*
- Exceptions for State Fire Marshal Amendments
- Exceptions for alignment with national model codes

\*BSC guidance memo



# Closer Look into Title 24 Part 6

# The Energy Code –Three Compliance Terms

## Mandatory Requirements

Energy efficiency measures that are applicable to all projects.

### Prescriptive Component Package

Mandatory Requirements are applicable

Follow all the parts of the prescriptive package

Note: used to determine the Standard Design Building

Essentially a **checklist** approach

### Performance Method

Mandatory Requirements are applicable

Other components or measures can be traded-off as long as the Proposed Design Building can be shown to be more energy efficiency than a similar sized Standard Design Building (baseline building)

**Energy modeling** approach

# Energy Code is based on Climate Zones (CZ) and Typical Meteorological Year Data (TMY)

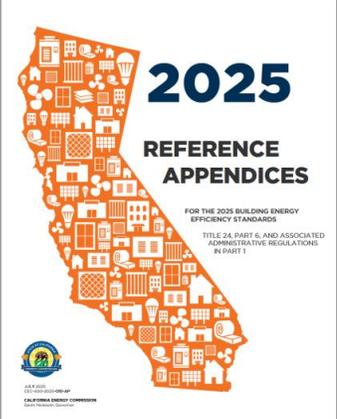
The California Energy Commission has an on-line tool:  
EZ Building Climate Zone Finder



<https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/climate-zone-tool-maps-and>

Example of CZ 5

## 16 Climate Zones (CZ) in California



### Joint Appendix JA2

#### Appendix JA2 – Reference Weather/Climate Data

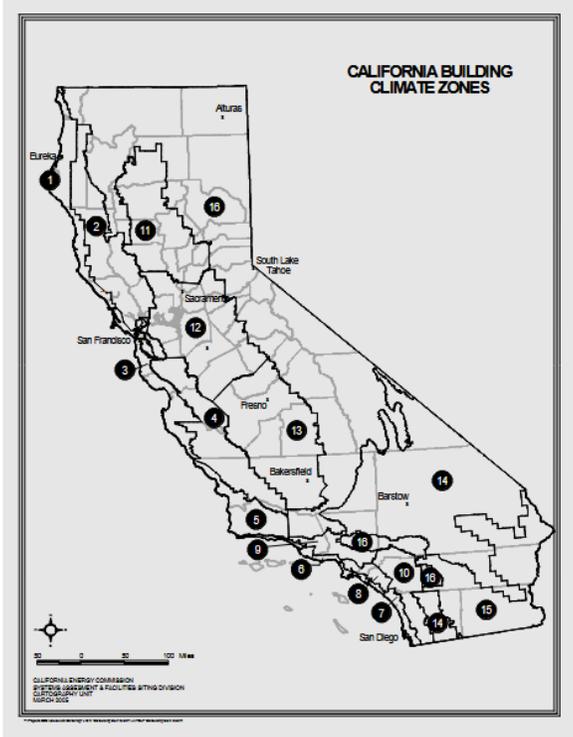


Figure2-1 – Climate Zone Map

# How the Energy Code is Organized

2025 Reference Ace

Search

## ✓ CALIFORNIA CODE OF REGULATIONS

### > 2025 ADMINISTRATIVE REGULATIONS, TITLE 24, PART 1 - ARTICLE 1 - ENERGY BUILDING REGULATIONS

#### ✓ 2025 BUILDING ENERGY EFFICIENCY STANDARDS, TITLE 24, PART 6

All

> SUBCHAPTER 1- ALL OCCUPANCIES--GENERAL PROVISIONS

> SUBCHAPTER 2 - ALL OCCUPANCIES--MANDATORY REQUIREMENTS FOR THE MANUFACTURE, CONSTRUCTION AND INSTALLATION OF

NR

> SUBCHAPTER 3 - NONRESIDENTIAL, HOTEL/MOTEL OCCUPANCIES, AND COVERED PROCESSES--MANDATORY REQUIREMENTS

> SUBCHAPTER 4 - NONRESIDENTIAL, AND HOTEL/MOTEL OCCUPANCIES--MANDATORY REQUIREMENTS FOR LIGHTING SYSTEMS AND E

> SUBCHAPTER 5 - NONRESIDENTIAL, AND HOTEL/MOTEL OCCUPANCIES--PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACH

> SUBCHAPTER 6 - NONRESIDENTIAL, AND HOTEL/MOTEL OCCUPANCIES ADDITIONS, ALTERATIONS, AND REPAIRS

SF

> SUBCHAPTER 7 - SINGLE-FAMILY RESIDENTIAL BUILDINGS--MANDATORY FEATURES AND DEVICES

> SUBCHAPTER 8 - SINGLE-FAMILY RESIDENTIAL BUILDINGS--PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES

> SUBCHAPTER 9 - SINGLE-FAMILY RESIDENTIAL BUILDINGS--ADDITIONS AND ALTERATIONS TO EXISTING RESIDENTIAL BUILDINGS

MF

> SUBCHAPTER 10 - MULTIFAMILY BUILDINGS-MANDATORY REQUIREMENTS

> SUBCHAPTER 11 - MULTIFAMILY BUILDINGS--PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES

> SUBCHAPTER 12 - MULTIFAMILY BUILDINGS--ADDITIONS, ALTERATIONS, AND REPAIRS TO EXISTING MULTIFAMILY BUILDINGS



# Or More Like this...

All [regulated] Occupancies  
(A, B, E, F, H, I, L, M, R, S, or U, except I-3 and I-4)

**Article 1 –Energy Building Regulations**      Sec 10-101 – 10-116

**Subchapter 1 –All Occupancy –General Provisions (Scope, Definitions)**      Sec 100.0-100.2

**Subchapter 2 –All Occupancies – Mandatory Requirements**      Sec 110.0-110.12

## Not Residential

## Single Family Res

## Multifamily Res

**Subchapter 3 – Nonresidential, Hotel/Motel, Covered Process –Mandatory Requirements**  
[HVAC and Ventilation]  
Sec 120.0-120.10

**Subchapter 4 – Nonresidential, Hotel/Motel –Mandatory Requirements**  
[Lighting and Power]  
Sec 130.0-130.5

**Subchapter 7 –Single Family Residential Mandatory Measures**  
Sec 150.0

**Subchapter 10 – Multifamily Residential Mandatory Measures**  
Sec 160.0-160.9

**Subchapter 8 – Performance and Prescriptive**  
[New Construction]  
Sec 150.1

**Subchapter 9 – Additions and Alterations**  
Sec 150.2

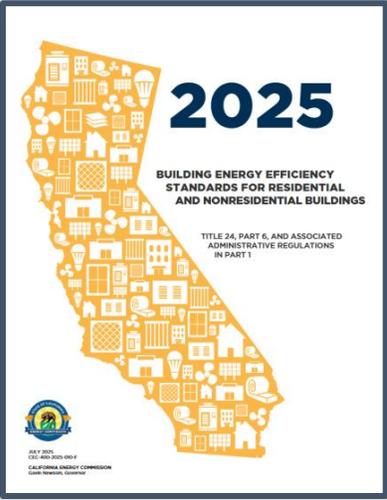
**Subchapter 11 – Performance and Prescriptive**  
[New Construction]  
Sec 170.0-170.2

**Subchapter 12 – Additions and Alterations**  
Sec 180.0-180.4

**Subchapter 5 –Performance and Prescriptive**  
[New Construction]  
Sec 140.0-140.10

**Subchapter 6 – Additions and Alterations**  
Sec 141.0-141.1

# Subchapter 1 –Application of the Standards



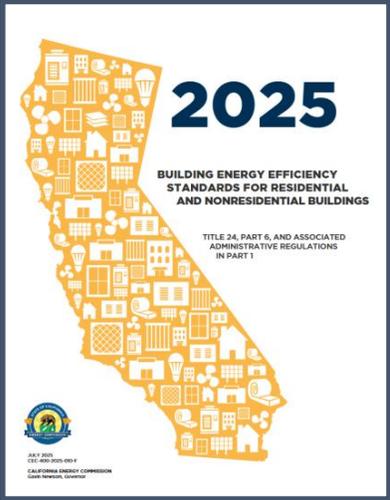
## Subchapter 1 Table 100.0-A

Useful way of looking at how the Energy Code Sections apply to particular applications

TABLE 100.0-A APPLICATION OF STANDARDS

Occupancies	Application	Mandatory	Prescriptive	Performance	Additions Alterations
All Buildings	General	100.0, 100.1, 100.2, 110.0	100.0, 100.1, 100.2, 110.0	100.0, 100.1, 100.2, 110.0	100.0, 100.1, 100.2, 110.0
Nonresidential, And Hotels/Motels	General	120.0	140.0, 140.2	140.0, 140.1	141.0
Nonresidential, And Hotels/Motels	Envelope (conditioned)	110.6, 110.7, 110.8, 120.7	140.3	140.0, 140.1	141.0
Nonresidential, And Hotels/Motels	Envelope (unconditioned process spaces)	N.A.	140.3(c)	140.0, 140.1	141.0
Nonresidential, And Hotels/Motels	HVAC (conditioned)	110.2, 110.5, 120.1, 120.2, 120.3, 120.4, 120.5, 120.8, 120.10	140.4	140.0, 140.1	141.0
Nonresidential, And Hotels/Motels	Water Heating	110.3, 120.3, 120.8, 120.9	140.5	140.0, 140.1	141.0
Nonresidential, And Hotels/Motels	Indoor Lighting (conditioned, process spaces)	110.9, 120.8, 130.0, 130.1, 130.4	140.3(c), 140.6	140.0, 140.1	141.0
Nonresidential, And Hotels/Motels	Indoor Lighting (unconditioned and parking garages)	110.9, 120.8, 130.0, 130.1, 130.4	140.3(c), 140.6	N.A.	141.0
Nonresidential, And	Outdoor Lighting	110.9, 130.0, 130.2, 130.4	140.7	N.A.	141.0

# Subchapter 1 –Application of the Standards

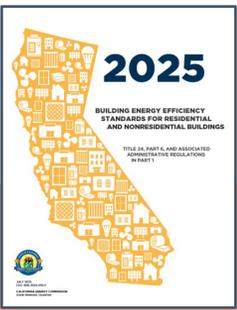


## Example:

- Single-family,
- Envelope (walls, floor, roof, windows, etc),
- Mandatory Measures, and
- Prescriptive Requirements

Occupancies	Application	Mandatory	Prescriptive	Performance	Additions Alterations
Single-Family	General	150.0	150.1(a, c)	150.1(a), 150.1(b)	150.2(a), 150.2(b)
Single-Family	Envelope (conditioned)	110.6, 110.7, 110.8, 150(a), 150.0(b), 150.0(c), 150.0(d), 150.0(e), 150.0(g), 150.0(q)	150.1(a, c)	150.1(a), 150.1(b)	150.2(a), 150.2(b)
Single-Family	HVAC (conditioned)	110.2, 110.5, 150.0(h), 150.0(i), 150.0(j), 150.0(m), 150.0(o)	150.1(a, c)	150.1(a), 150.1(b)	150.2(a), 150.2(b)
Single-Family	Water Heating	110.3, 150.0(j, n)	150.1(a, c)	150.1(a), 150.1(b)	150.2(a), 150.2(b)
Single-Family	Indoor Lighting (conditioned, unconditioned and parking garages)	110.9, 130.0, 150.0(k)	150.1(a, c)	150.1(a), 150.1(b)	150.2(a), 150.2(b)
Single-Family	Outdoor Lighting	110.9, 130.0, 150.0(k)	150.1(a, c)	150.1(a), 150.1(b)	150.2(a), 150.2(b)
Single-Family	Pool and Spa Systems	110.4, 150.0(p)	N. A.	N.A.	150.2(a), 150.2(b)
Single-Family	Solar Ready Buildings	110.10	N. A.	N.A.	N.A.
Single-Family	Electric Ready	150.0(s), 150.0(t), 150.0(u), 150.0(v)	N.A.	N.A.	N.A.
Single-Family	Solar PV Systems	N.A.	150.1(c)14	150.1(a), 150.1(b)	N.A.

# Low Rise Residential –Prescriptive Example



## Single Family (Townhomes and Duplexes)

### Subchapter 7

#### 150.0 Mandatory Measures

##### Applies to all :

- (a) Ceiling and Roof Insulation
- (b) Loose-fill Insulation
- (c) Wall Insulation**
- (d) Raised-floor Insulation
- (e) Fireplaces
- (f) Slab Edge Insulation
- (g) Vapor Retarder
- (h) Space Conditioning Equip
- (i) Thermostats
- (j) Insulation for Piping and Tanks
- (k) Residential Lighting
- (l) *not used*
- (m) Air Distribution...System...Fans
- (n) Water Heating System
- (o) Ventilation and Indoor Air Quality
- (p) Pool Equip
- (q) Fenestration [windows/skylights]
- (r) Solar Ready Buildings

### Subchapter 8

#### 150.1 Performance and Prescriptive [*New Construction*]

##### Climate Zone dependent

##### Applies to

- Hot water heating System
- Mechanical space conditioning system
- Indoor Air Quality Ventilation
- Building Envelope**

##### Show Compliance

- Prescriptive (akin to following a checklist) or**
- Performance Method, i.e. detailed computer modeling analysis

### Subchapter 9

#### 150.2 Additions and Alterations

##### Climate Zone dependent

##### Applies to

- Hot water heating System
- Mechanical space conditioning system
- Indoor Air Quality Ventilation
- Building Envelope

##### Show Compliance

- Prescriptive (akin to following a checklist) or
- Performance Method, i.e. detailed computer modeling analysis

# Prescriptive Wall Example

Example 1: Single-family New Construction, Thousand Oaks area (CZ9), wood framed walls

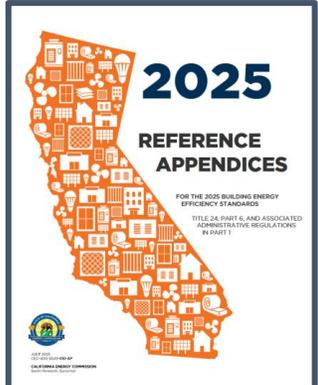
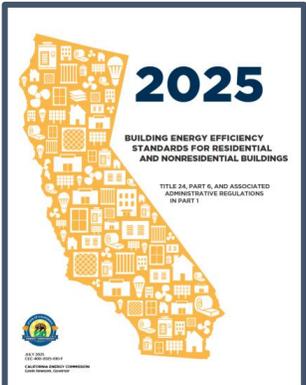


TABLE 150.1-A COMPONENT PACKAGE – Single-Family Standard Building Design (continued)

Building Component Walls, Floors, Doors, Fenestrations, and Oils	CZ 1	CZ 2	CZ 3	CZ 4	CZ 5	CZ 6	CZ 7	CZ 8	CZ 9	CZ 10	CZ 11	CZ 12	CZ 13	CZ 14	CZ 15	CZ 16
Above Grade Framed Walls <sup>3</sup>	U 0.048	U 0.065	U 0.065	U 0.048	U 0.048											
Above Grade Masonry/Mass Wall Interior <sup>4,5,6</sup>	U 0.077 R 13	U 0.059 R 17														
Above Grade Masonry/Mass Wall Exterior <sup>4,5,6</sup>	U 0.125 R 8.0	U 0.077 R 13														
Below Grade Interior Walls <sup>7</sup>	U 0.077 R 13	U 0.067 R 15														
Below Grade Exterior Walls <sup>7</sup>	U 0.200 R 5.0	U 0.100 R 10	U 0.053 R 19													

3. Assembly U-factors for exterior framed walls can be met with cavity insulation alone or with continuous insulation alone, or with both cavity and continuous insulation that results in an assembly U-factor equal to or less than the U-factor shown. Use Reference Joint Appendices JA4 Table 4.3.1, 4.3.1(a), or Table 4.3.4 to determine alternative insulation products to be less than or equal to the required maximum U-factor.



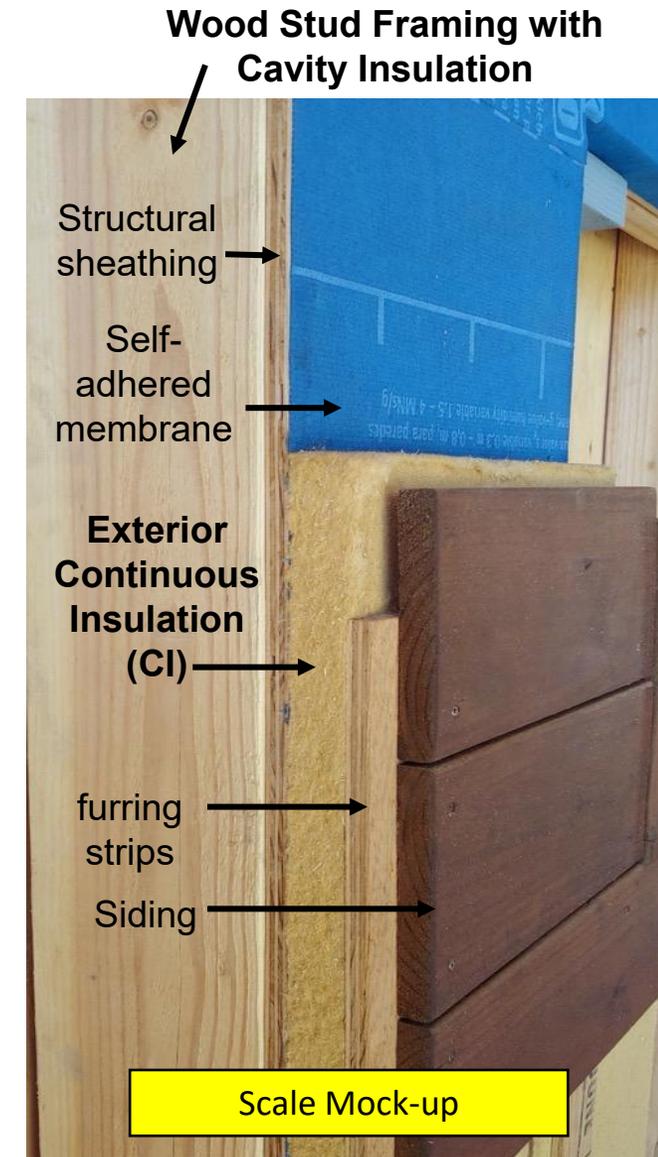
# Translation...Walls Assemblies Meeting Prescriptive U-0.065 and U-0.048



**Table 3-10: Examples of Wood-Framed Wall Assemblies and U-Factors, Assuming Gypsum Board Interior**

Stud (16" oc)	Cavity Insulation	Cavity Insulation Type	Exterior Insulation	U-Factor
2x4	R15	High density batt	R4	0.065
2x4	R13	Open-cell spray foam (ocSPF)	R5	0.064
2x4	R15	High density batt	R8	0.050
2x6	R21	Loose-fill cellulose or high density batt	R4	0.051
2x6	R19	Low density batt	R5	0.051
2x6	R31	Closed-cell spray foam (ccSPF)	R2	0.049
2x6	R23	High density batt or mineral wool	R4	0.049
2x6	R21	Loose-fill cellulose or high density batt	R5	0.048
2x6	R19	Low density batt	R6	0.048
2x6	R23	High density bat or mineral wool	R5	0.047

**CZ 9**



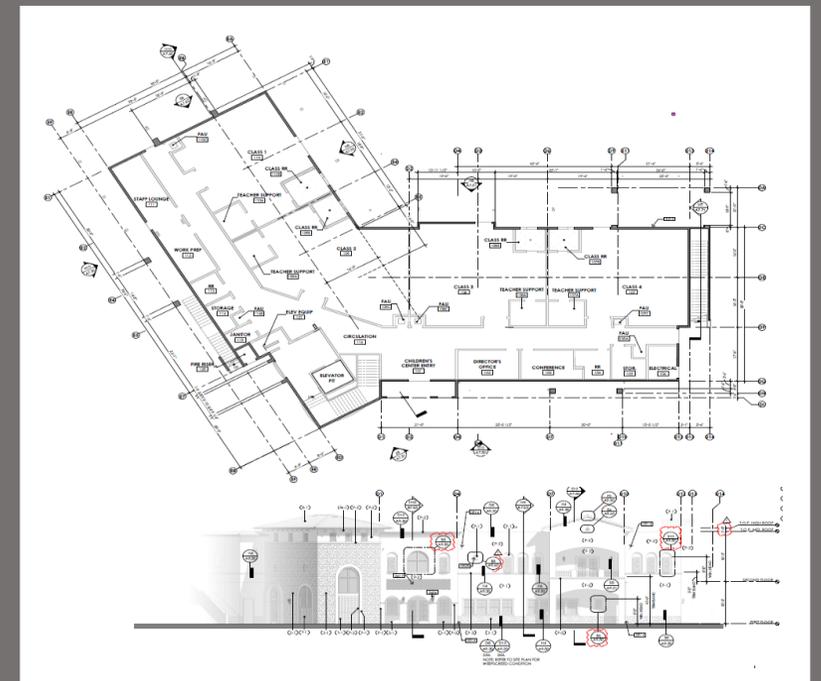
# Prescriptive Nonresidential Example



Climate Zone (CZ) 5				Translation -Ref Joint Appendices	
Opaque Envelope	Roofs/Ceilings	Wood Framed (U-factor)	0.028	24" o.c. 2x12 Rafter R-30 + R-2 CI	
	Walls	Wood Framed (U-factor)	0.095	2x4 Stud w/ R-15	
		Metal Framed (U-factors)	0.055	24" o.c. 2x6 mtl stud R-19 + R-12 CI	
Floors/Soffits	Wood Framed (U-factor)	0.071	2x6 Joist w/ R-11		
Roofing Products	Low-sloped	Aged Solar Reflectance	0.63	Table 140.3 Insulation Trade-off	
		Thermal Emittance	0.75		
Fenestration Products	Vertical	Windows Fixed	0.36	Thermally-Broken Dual-Glazed Typ	
		Windows Operable	0.46		
		WWR	40%		

CZ 4, 9, or 16				Translation -Ref Joint Appendices	
Opaque Envelope	Walls	Wood Framed (U-factor)	0.053	2x6 Stud w/ R-19 + R-5 CI	

CZ 6 or 7				Translation -Ref Joint Appendices	
Opaque Envelope	Walls	Wood Framed (U-factor)	0.102	2x4 Stud w/ R-13	

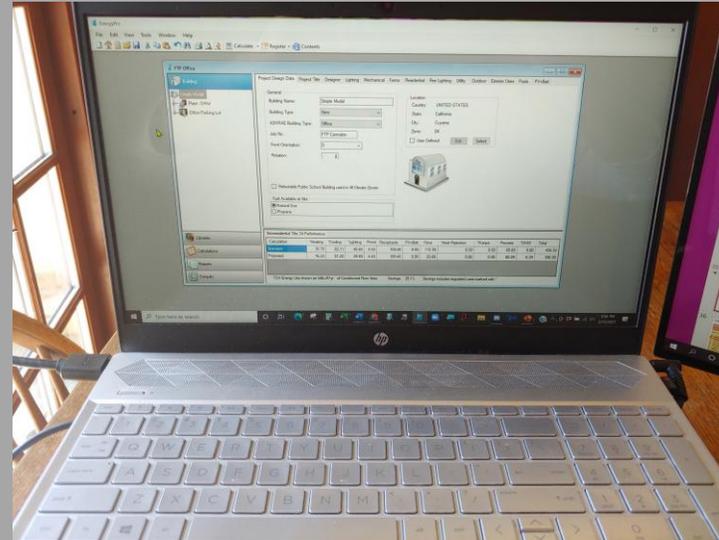
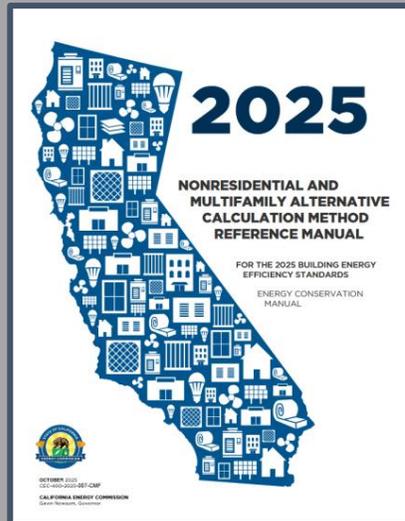
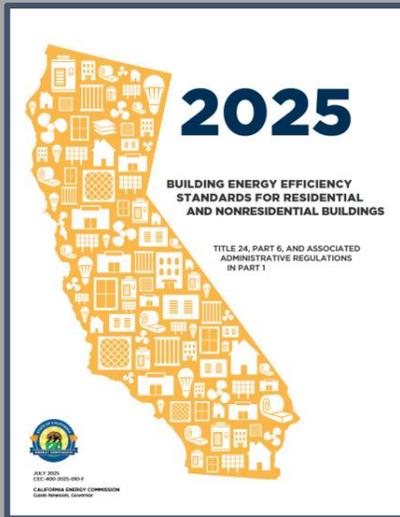


**Envelope Example : Two story commercial building Santa Maria area (CZ5)**

**Walls:** Design team is considering **metal** stud walls, but might use **wood** stud walls... What is the implication of this decision?

**Side Note:** Notice the difference location or a **climate zone (CZ)** could make for a wood stud wall assembly

# Performance Method Results



**Long-term System Cost (LSC)** represents the annual 30-year present value cost to California's energy system as a result from the energy used in the operation of the building.

The calculation uses a typical meteorologically year (TMY) data.

**Source Energy** represents the annual impact on carbon emissions for the creation and delivery of the energy used.

C1. COMPLIANCE SUMMARY			
<b>High-Rise Multifamily Example – Title 24 Report 2025</b>			
<b>COMPLIES*</b>			
	Long-term System Cost (LSC) <sup>1</sup>		Source Energy Use
	Efficiency <sup>2</sup> (\$/ft <sup>2</sup> -yr)	Total <sup>3</sup> (\$/ft <sup>2</sup> -yr)	Total <sup>3</sup> (kBtu/ft <sup>2</sup> -yr)
Standard Design	30.06	18.81	13.38
Proposed Design	27.76	18.25	13.28
Compliance Margins	2.3	0.56	0.1
	Pass	Pass	Pass

<sup>1</sup> Long-term System Cost (LSC) is a 30-year present value cost to California's energy system. LSC is not a predicted utility bill.

<sup>2</sup> Efficiency measures include energy efficiency improvements such as better building envelope and more efficient mechanical equipment

<sup>3</sup> Compliance Totals include efficiency, photovoltaics and batteries

# Performance Method –Regulated Loads Used for Compliance

C2. LSC ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual LSC Energy Use, \$/ft <sup>2</sup> -yr)			
COMPLIES			
Energy Component	Standard Design (LSC)	Proposed Design (LSC)	Compliance Margin (LSC) <sup>1</sup>
Space Heating	0.36	1.16	-0.8 ← -
Space Cooling	2.19	1.32	0.87
Indoor Fans	4.22	2.91	1.31
Heat Rejection	0	0	0
Pumps & Misc.	0.12	0.33	-0.21 ← -
Domestic Hot Water	14.19	14.04	0.15
Indoor Lighting	8.98	8	0.98
Flexibility	---	---	---
<b>EFFICIENCY COMPLIANCE TOTAL</b>	<b>30.06</b>	<b>27.76</b>	<b>2.3 (7.7%)</b>
Photovoltaics	-11.24	-9.51	-1.73
Batteries	-0.01	---	-0.01
<b>TOTAL COMPLIANCE</b>	<b>18.81</b>	<b>18.25</b>	<b>0.56 (3%)</b>

“Regulated Loads”  
Can be traded-off  
with each  
other.  
LSC  
Efficiency

Minimum PV  
and Battery  
Requirement

<sup>1</sup> Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

# Performance Method –Non-Regulated Loads

## Informational Only

“Non-Regulated Loads” Cannot be traded-off. Used for informational purposes.

C3. LSC ENERGY RESULTS FOR NON-REGULATED COMPONENTS <sup>1</sup>			
Non-Regulated Energy Component	Standard Design (LSC)	Proposed Design (LSC)	Compliance Margin (LSC) <sup>2</sup>
Receptacle	15.3	15.3	---
Process	12.86	12.74	0.12
Other Ltg	2.01	2.01	---
Process Motors	5.93	5.93	---
<b>TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)</b>	<b>54.91</b>	<b>54.23</b>	<b>0.68 (1.2%)</b>

<sup>1</sup> Notes: This table is not used for Energy Code Compliance.

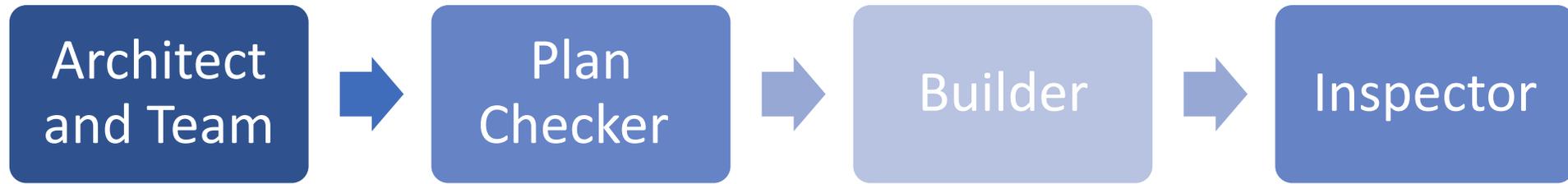
<sup>2</sup> Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.



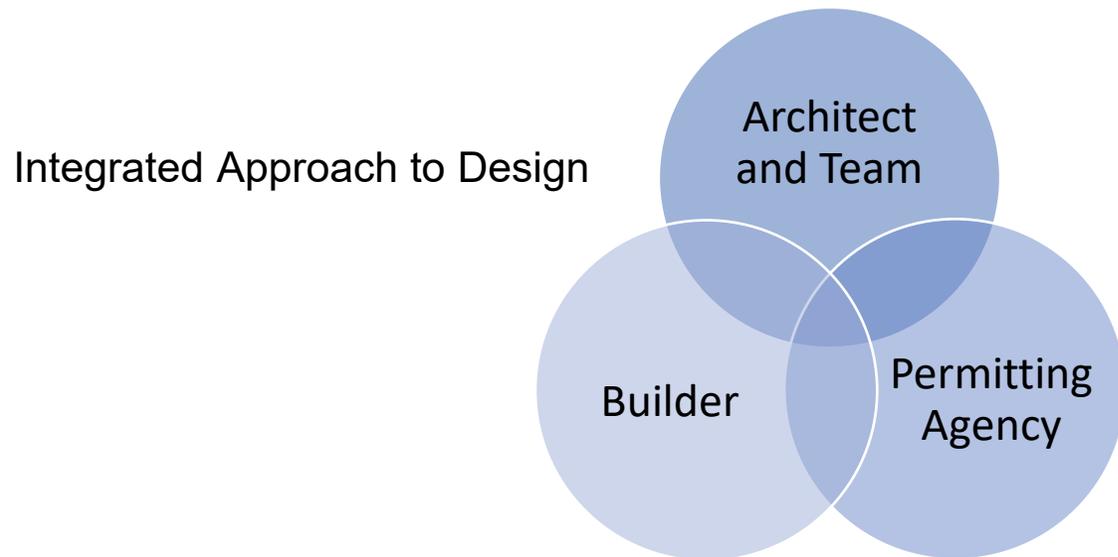
# Tips for Implementation



# Plan and Design for Energy Code Compliance



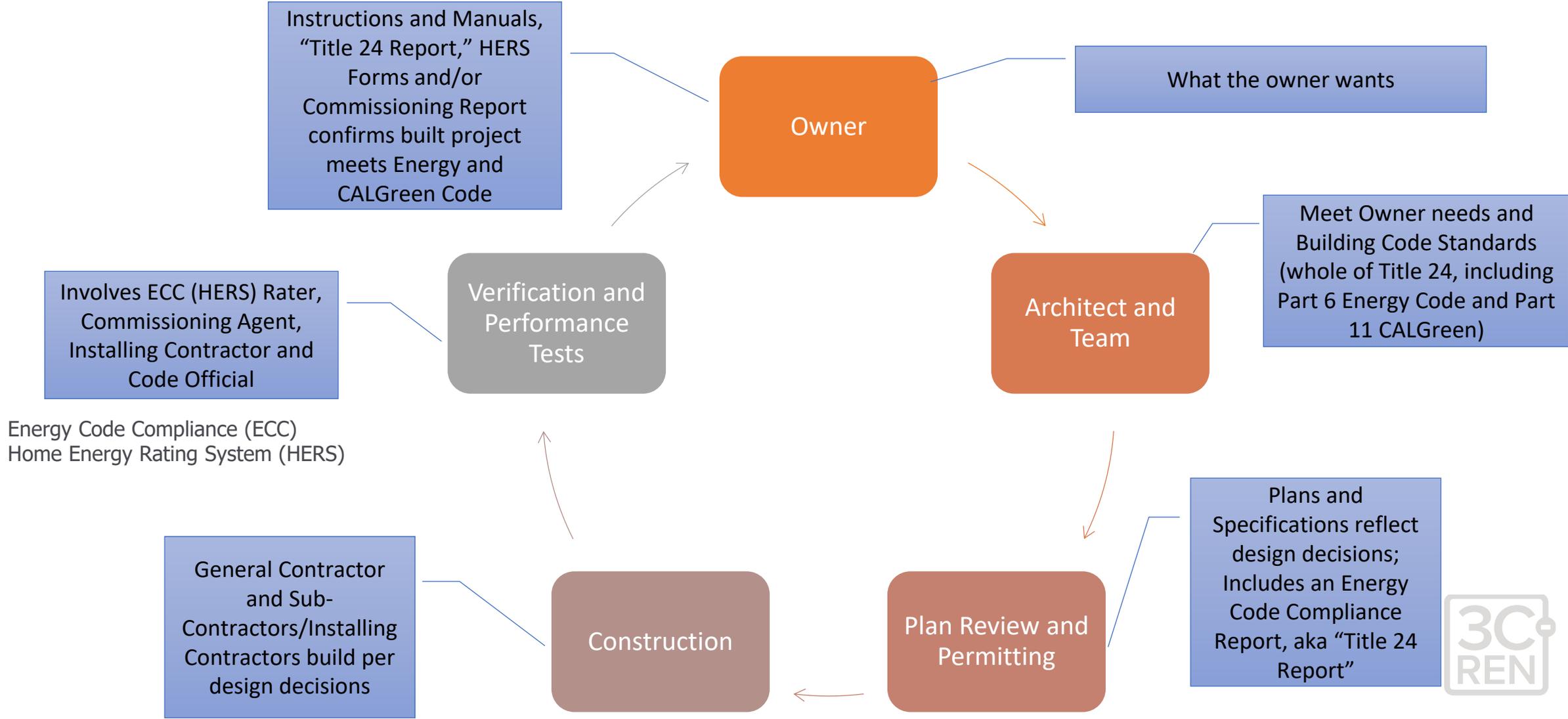
Linear Approach to Design



Integrated approach identifies issues early and enables efficiencies



# Design and Construction – When do the Energy Code (and Green Code) come into play?





# Energy Code Process

- Three Non-Res sections for review - ENV, LTG, MECH/ DHW – make sure scope is covered
- Small projects – Prescriptive forms
- Certified Energy Analyst (CEA) for Performance Method
  - Background needed
  - Independent or part of mechanical engineering
- Building Permit submission
- On-Site Inspections and verifications
  - Acceptance Test Technician (ATT) – Non-Res
  - Energy Code Compliance (ECC) Rater – Res

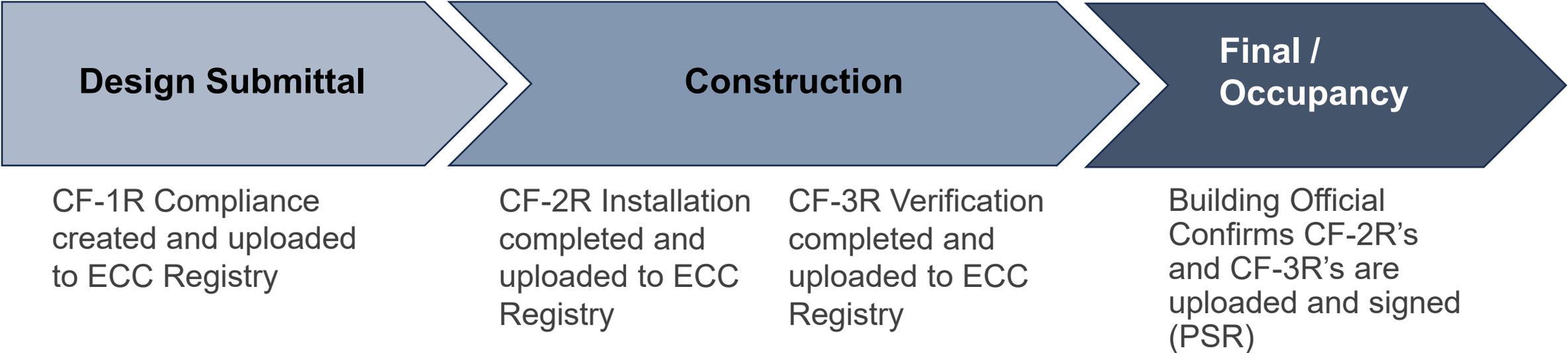


# Process for Energy Code Compliance

## Non-Residential

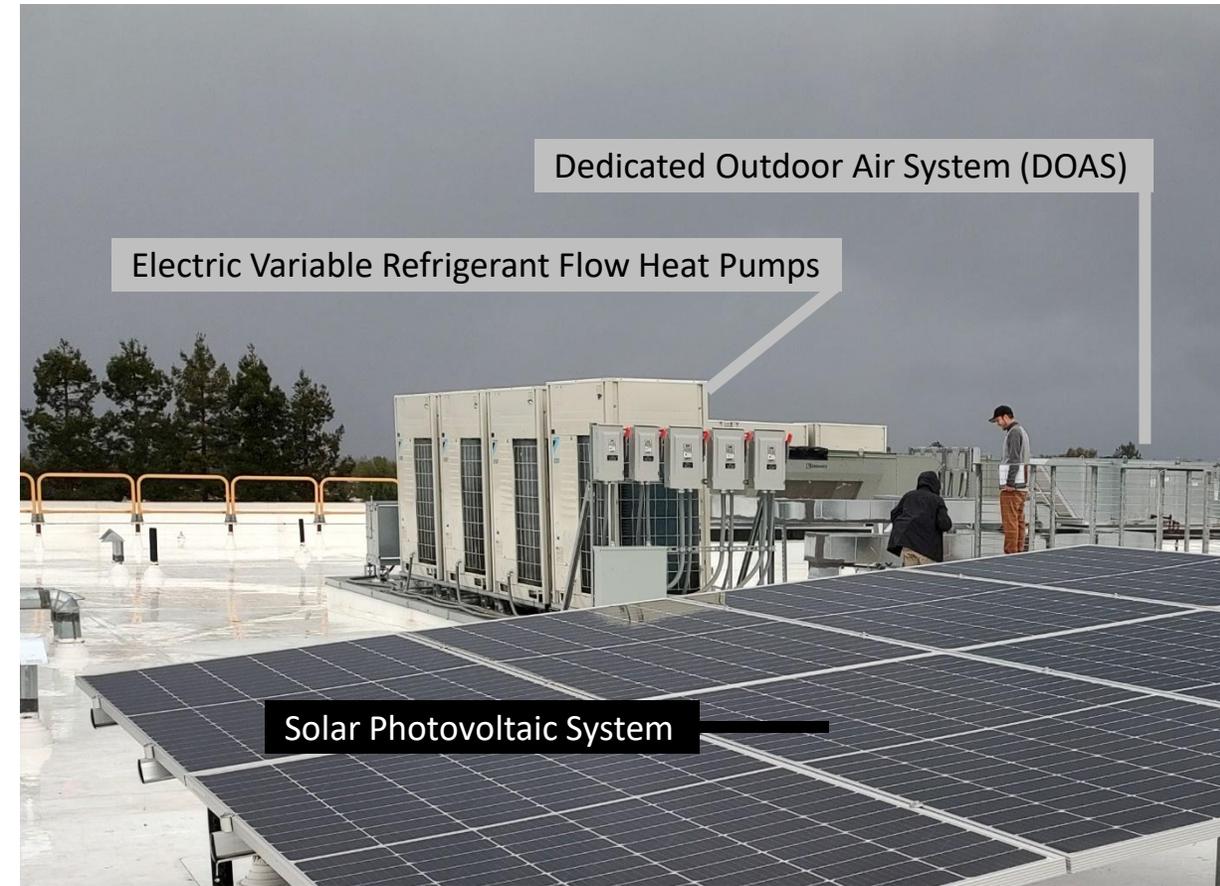


## Residential - SFR



# Key Point: Target All-Electric (and *Nearly All-Electric*) Buildings

- **New Construction** All-Electric is relatively easy, with some exceptions for large scale buildings and industrial applications
- **Existing Buildings** – Incremental opportunities for
  - HVAC Replacement
  - Appliance Replacement
  - On-site Solar and Batteries
  - Envelope Improvements
- **Existing Communities** – Infrastructure Approach
  - Decarbonize the Grid
  - Reduce Natural Gas Carbon Footprint
  - Support Electric Transportation



Morning Star Senior Living, San Jose, CA



# And Solar and Battery

## Applicable Occupancy Types:

High-Rise Residential

Grocery, Retail

Restaurants

School

Library

Warehouse

Religious Worship

Sports and Recreation

Events and Exhibits

Hotel-Motel

Office and Financial Institution

Unleased Tenant Space

Medical Office Building/Clinic



Under the 2025 Code some occupancy types were added and some have increased Solar PV and Battery requirements. Restaurants, for example, had a dramatic increase.





# Resources



# Calif. Code of Regulations and the Building Standards Commission

Through a contract with Westlaw, the CCR Titles can be found on line at <https://govt.westlaw.com/calregs>

govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?bhcp=1&tr  
DSPS - Cuest... 674 Tools & Guides | Bu... CSI EPBB Calculator ECC Trainings - All... HPWH P

THOMSON REUTERS  
**WESTLAW** California Code of Regulations

### California Code of Regulations

- [Title 1. General Provisions](#)
- [Title 2. Administration](#)
- [Title 3. Food and Agriculture](#)
- [Title 4. Business Regulations](#)
- [Title 5. Education](#)
- [Title 7. Harbors and Navigation](#)
- [Title 8. Industrial Relations](#)
- [Title 9. Rehabilitative and Developmental Services](#)
- [Title 10. Investment](#)
- [Title 11. Law](#)
- [Title 12. Military and Veterans Affairs](#)
- [Title 13. Motor Vehicles](#)
- [Title 14. Natural Resources](#)
- [Title 15. Crime Prevention and Corrections](#)
- [Title 16. Professional and Vocational Regulations](#)
- [Title 17. Public Health](#)
- [Title 18. Public Revenues](#)
- [Title 19. Public Safety](#)
- [Title 20. Public Utilities and Energy](#)
- [Title 21. Public Works](#)
- [Title 22. Social Security](#)
- [Title 23. Waters](#)
- [Title 24. Building Standards Code](#)
- [Title 25. Housing and Community Development](#)
- [Title 26. Toxics](#)
- [Title 27. Environmental Protection](#)
- [Title 28. Managed Health Care](#)

Privacy Accessibility California Office of Administrative Law

The screenshot shows the California Building Standards Commission (BSC) website. At the top, there is a navigation menu with links for DGS HOME, HOME, CODES, MEETINGS, CALGREEN, RULEMAKING, FORMS, RESOURCES, NEWS, ABOUT, and CONTACT. Below the navigation is a large banner image of two construction workers wearing hard hats and safety glasses, with the word "Codes" overlaid in large white text. To the left of the banner is the BSC logo and a cityscape image. Below the banner, there are two main sections: "LOCAL AMENDMENTS TO BUILDING STANDARDS - ORDINANCES" with a blue button labeled "ORDINANCES", and "CALIFORNIA BUILDING STANDARDS CODE" with a list of triennial editions. The list includes "2025 TRIENNIAL EDITION OF TITLE 24", "2022 TRIENNIAL EDITION OF TITLE 24", and "2019 TRIENNIAL EDITION OF TITLE 24", each with a plus sign icon. A red box highlights the 2025 edition. Below the list is a "FEATURED LINKS" section with a red box around a link for "Title 24 - The California Building Standards Code". To the right of the featured links are logos for "CALGreen" and "Local Amendments to Building Standards - Ordinances". At the bottom, there is a section for "EDUCATION & OUTREACH" with an image of educational materials.

**Title 24 Building Standards Codes** links to the California Department of General Services: Building Standards Commission

<https://www.dgs.ca.gov/BSC>



The 2025 California Building Standards Code (Cal. Code Regs., Title 24) will be published July 1, 2025, with an effective date of January 1, 2026. [Summaries of the code changes](#) in this edition and the supplements are available under the [Resources](#) tab of the CBSC website.

The active links below will take you to each publisher's website. Please contact CBSC at [cbcs@dgs.ca.gov](mailto:cbcs@dgs.ca.gov) if you have difficulty accessing the codes.

**PART 1 – CALIFORNIA ADMINISTRATIVE CODE**

**PART 2 – CALIFORNIA BUILDING CODE** — Volumes 1 & 2

**PART 2.5 – CALIFORNIA RESIDENTIAL CODE**

**PART 3 – CALIFORNIA ELECTRICAL CODE**

**NOTE:** NFPA requires creation of a user login to view its free online resources.

- [California-specific amendments only](#)
- [Errata — Part 3 \(non-substantive corrections\)](#) Effective January 1, 2026

**PART 4 – CALIFORNIA MECHANICAL CODE**

- [Errata — Part 4 \(non-substantive corrections\)](#) Effective January 1, 2026

**PART 5 – CALIFORNIA PLUMBING CODE**

- [Errata — Part 5 \(non-substantive corrections\)](#) Effective January 1, 2026

**PART 6 – CALIFORNIA ENERGY CODE**

**PART 7 – CALIFORNIA WILDLAND-URBAN INTERFACE CODE**

**PART 8\* – CALIFORNIA HISTORICAL BUILDING CODE**

**PART 9 – CALIFORNIA FIRE CODE**

**PART 10\* – CALIFORNIA EXISTING BUILDING CODE**

**PART 11 – CALIFORNIA GREEN BUILDING STANDARDS CODE** also referred to as **CALGreen**

**PART 12\* – CALIFORNIA REFERENCED STANDARDS CODE**

\*The printed versions of Parts 8, 10, and 12 are located in a shared binder.

**Title 24, Part 6 California Energy Code**  
<https://codes.iccsafe.org/content/CAEC2025P2>

Menu | ICC DIGITAL CODES | Search Digital Codes | Subscribe | Sign In

2025 California Energy Code, Title 24, Part 6 with January 2026 Errata  
 Effective Date: Jan 01, 2026  
 Version: Jan 2026

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PREFACE

ACKNOWLEDGMENTS

CALIFORNIA CODE OF REGULATIONS, TITLE 24

HOW TO DETERMINE WHERE CHANGES HAVE BEEN MADE

SUBCHAPTER 1 ALL OCCUPANCIES—GENERAL PROVISIONS

SUBCHAPTER 2 ALL OCCUPANCIES—MANDATORY REQUIREMENTS FOR THE MANUFACTURE,

**BASIC READ ONLY**

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**About This Title**

The California Energy Code (CEC) contains energy conservation standards applicable to most residential and nonresidential buildings throughout California, including schools.

Included in the subscription service for all state updates and supplements. Effective Date: January 1, 2026.

**Contents and Navigation**

**Read Only or Subscription**



# Note: Red Text for 2025 Changes from 2022 Code

## 2025 Code

Codes / California / 2025 California Energy Code, Title 24, Part 6 with January 2026 Errata ...

SUBCHAPTER 1 ALL OCCUPANCIES—GENERAL PROVISIONS

### SECTION 100.0—SCOPE

(a) **Buildings covered.** The provisions of Part 6 apply to all buildings:

1. That are of Occupancy Group A, B, E, F, H, I, L, M, R, S or U; and
2. For which an application for a building permit or renewal of an existing permit is filed (or is required by law to be filed) on or after the effective date of the provisions, or which are constructed by a governmental agency; and
3. That are:
  - A. Unconditioned; or
  - B. Indirectly or directly conditioned, or process spaces.

**Exception 1 to** Section 100.0(a): Qualified historic buildings as regulated by the *California Historic Building Code* (Title 24, Part 8). Lighting in qualified historic buildings shall comply with the applicable requirements in Section 140.6(a)3Q.

**Exception 2 to** Section 100.0(a): Building departments, at their discretion, may **not require compliance for** temporary buildings, temporary outdoor lighting or temporary lighting in an unconditioned building, or structures erected in response to a natural disaster. Temporary buildings or structures shall be completely removed upon the expiration of the time limit stated in the permit.

**Exception 3 to** Section 100.0(a): Buildings in Occupancy Group I-3 and I-4.

## 2022 Code

Codes / California / 2022 California Energy Code, Title 24, Part 6 with July 2024 Supplement ...

Subchapter 1 All Occupancies—General Provisions

### SECTION 100.0

#### SCOPE

(a) **Buildings covered.** The provisions of Part 6 apply to all buildings:

1. That are of Occupancy Group A, B, E, F, H, I, M, R, S or U; and
2. For which an application for a building permit or renewal of an existing permit is filed (or is required by law to be filed) on or after the effective date of the provisions, or which are constructed by a governmental agency; and
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# California Energy Commission (CEC) [energy.ca.gov](http://energy.ca.gov)



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California Energy Commission > Rules and Regulations > Building Energy Efficiency

Leading the state to a  
clean energy future for

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## Building Energy Efficiency

The California Energy Commission is transforming buildings through standards and programs for newly constructed and existing buildings. Learn more about the Energy Commission's building energy efficiency standards, benchmarking programs, efficiency for existing buildings, and

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[2022 Building Energy Efficiency Standards](#)

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# California Energy Commission Energy.ca.gov

The screenshot shows the California Energy Commission website. At the top, there is a navigation bar with 'CA.gov' and social media links. Below that is the California Energy Commission logo and a search bar. The main navigation menu includes 'HOME', 'PROCEEDINGS', 'RULES AND REGULATIONS', 'PROGRAMS AND TOPICS', 'FUNDING', and 'DATA AND REPORTS'. The current page is '2025 Building Energy Efficiency Standards'. A large blue banner at the top of the page reads '2025 Building Energy Efficiency Standards'. Below this, a text block states: 'The 2025 Energy Code expands the use of heat pumps in newly constructed residential buildings, encourages electric-readiness, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2026, must comply with the 2025 Energy Code.' To the right, a green sidebar lists 'BUILDING ENERGY EFFICIENCY STANDARDS' with links for 2028, 2025, 2022, 2019, and 2016 standards. Under the 2025 standards, there are links for 'Energy Code Hotline Submission Form', 'Energy Code Support Center', and 'Workshops, Notices, and Documents'. At the bottom left, there are two book covers for the '2025 Energy Code for Residential and Nonresidential Buildings' and '2025 Reference Appendices'. A red box highlights the 'Energy Code Support Center' link in the sidebar.

**2025 Building Energy Efficiency Standards**

The 2025 Energy Code expands the use of heat pumps in newly constructed residential buildings, encourages electric-readiness, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2026, must comply with the 2025 Energy Code.

**BUILDING ENERGY EFFICIENCY STANDARDS**

- 2028 Building Energy Efficiency Standards
- 2025 Building Energy Efficiency Standards**
  - 2025 Multifamily Compliance Manual - Individual Chapters and Appendices
  - 2025 Nonresidential Compliance Manual - Individual Chapters and Appendices
  - 2025 Single-Family Residential Compliance Manual - Individual Chapters and Appendices
- 2022 Building Energy Efficiency Standards
- 2019 Building Energy Efficiency Standards
- 2016 Building Energy Efficiency Standards

[Energy Code Hotline Submission Form](#)

[Energy Code Support Center](#)

[Workshops, Notices, and Documents](#)

**2025 Energy Code for Residential and Nonresidential Buildings**

[2025 ENERGY CODE](#)

**2025 BUILDING ENERGY EFFICIENCY STANDARDS FOR RESIDENTIAL AND NONRESIDENTIAL BUILDINGS**

**2025 REFERENCE APPENDICES**

## Additional Resources:

- Forms
- Trainings and Videos
- Newsletter
- Hot Line Submission
- Support Center –FAQ

“Where do I find my climate zone?”



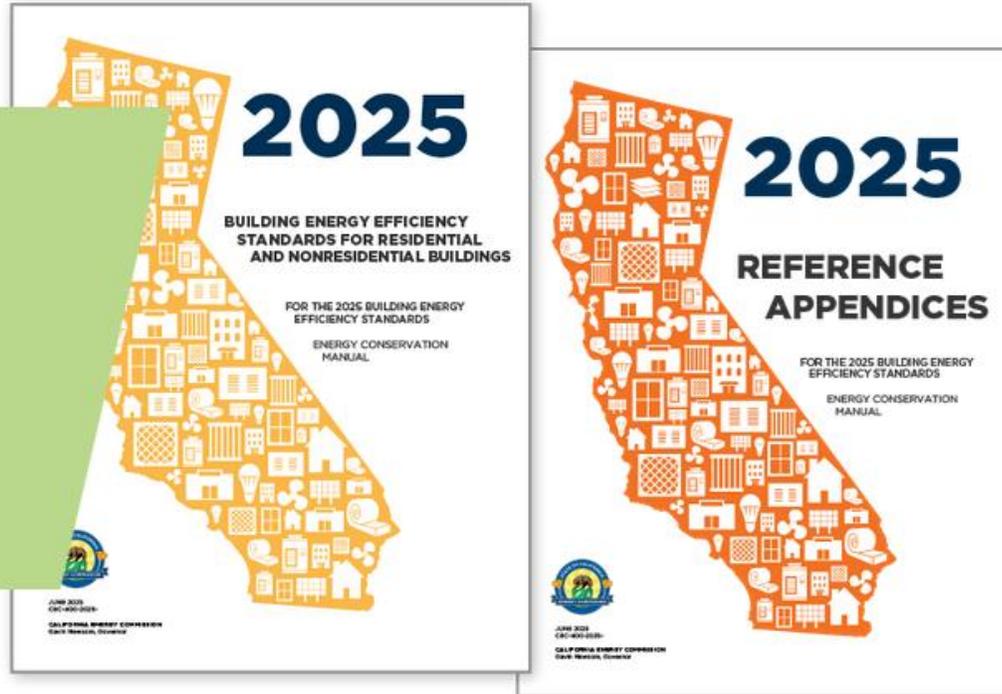
EZ Climate Zone Search Tool



# Title 24 Part 6, 2025 Standards and Manuals

2025 Energy Code for  
Residential and  
Nonresidential Buildings

2025 ENERGY CODE >



– 2025 Multifamily Compliance Manual -  
Individual Chapters and Appendices

– 2025 Nonresidential Compliance Manual -  
Individual Chapters and Appendices

– 2025 Single-Family Residential Compliance  
Manual - Individual Chapters and  
Appendices

The main five manuals/books: Efficiency Standards, Reference Appendices, and three Compliance Manuals



[Restructured 2025 Energy Code – California Code of Regulations – Title 24, Part 6 \(For Information Only\)](#)

Link to alternative way to organize the Energy Code

[California Green Building Standards Code – Title 24, Part 11 \(CALGreen\)](#)

Convenient link to CALGreen, since both Part 6 and Part 11 address systems that impact energy

Expand All

**Supporting Documents**



Expand for the Reference Appendices and the Compliance Manuals

**Software – Compliance Software, Manuals and Forms**



Expand for compliance modeling software and three additional manuals...

**Acceptance Testing, Field Verification and Diagnostic Testing**



**Docket Logs**



**Rulemaking**



**Local Ordinances**



# Side Bar

## Table of Contents Excerpt from Restructured 2025 Energy Code

### Take Away:

- Subchapters organized by topic rather than occupancy type
- Section numbering is consistent with Subchapter numbering

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	SECTION 100: SCOPE AND ADMINISTRATION.....	1
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## Compliance Software

CEC approved software to demonstrate performance compliance with residential and nonresidential provisions of the 2025 Energy Code. Performance modeling allows a user to assess building system performance or different building components against the Energy Code baseline.

- [2025 Energy Code Compliance Software](#)

Download the software

## Alternative Calculation Method (ACM) Manuals

These manuals identify the modeling rules used within the compliance software.

- [2025 Single-Family ACM Reference Manual](#)
- [2025 Nonresidential and Multifamily ACM Reference Manual](#)

Deeper dive into the software engine and requirements

## Data Registry Requirements Manual

This manual is intended to aid in designing and implementing software procedures and user interface features. As a resource for data registry providers, it includes information and explanations regarding the functional and technical aspects of the requirements given in Reference Joint Appendix JA7.

- [2025 Data Registry Requirements Manual](#)

Additional detailed guidance for ECC-Providers (formerly HERS Providers) for JA7 requirements

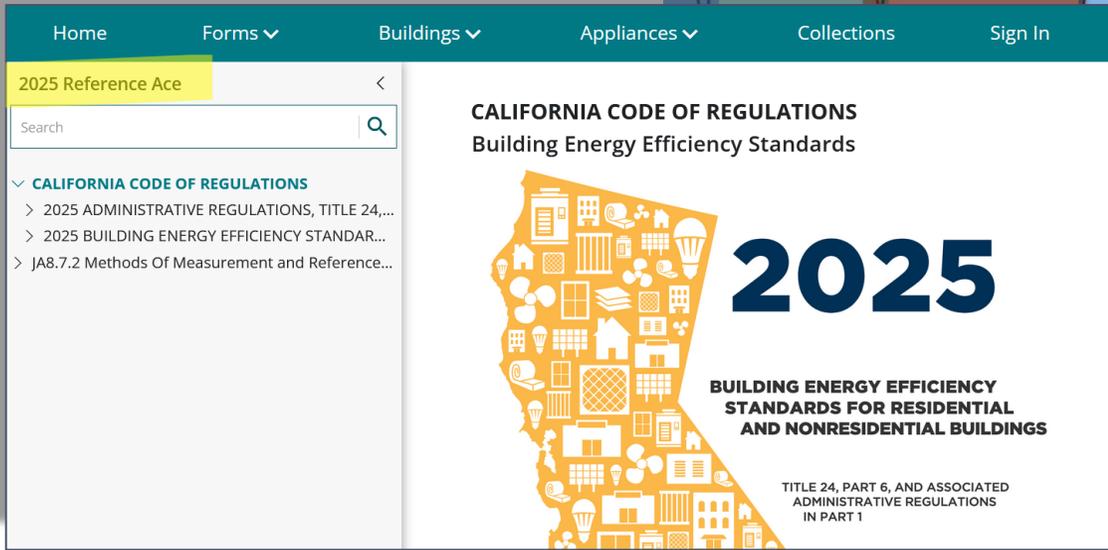
## Compliance Documents - Forms

- [2025 Single-Family Forms](#)
- [2025 Low-rise Multifamily Forms](#)
- [2025 Nonresidential, Hotel/Motel, High-rise Multifamily Forms](#)

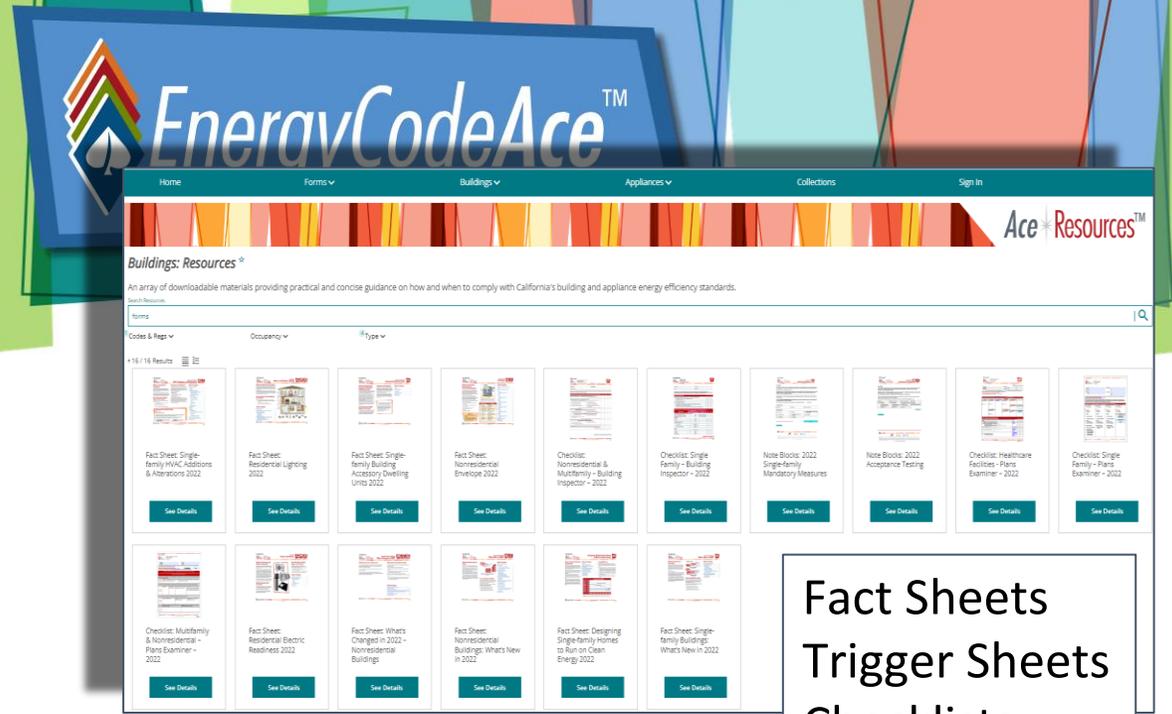
Prescriptive *non*-ECC (formerly HERS) *non*-registered forms, and similar



# Energy Code Ace energycodeace.com



Title 24 Part 6 Energy Code  
Title 20 Appliance Standards  
Res and Non-Res Manuals



Fact Sheets  
Trigger Sheets  
Checklists  
...and more

# Energy Code Ace – Get Forms and Virtual Compliance Assistant

## 2025 Nonresidential Energy Code Forms

Official California Energy Commission compliance documents you can use to show compliance with 2025 California Building Energy Efficiency Standards (Title 24, Part 6 or Energy Code).

These forms are for nonresidential, high-rise multifamily (4 stories or greater) and high-rise mixed-use (4 stories or greater) projects.

[NRCC Forms \(Nonresidential Certificates of Compliance\) ^](#)

[NRCI Forms \(Nonresidential Certificates of Installation\) ^](#)

[NRCA Forms \(Nonresidential Certificates of Acceptance\) ^](#)

[NRCV Forms \(Nonresidential Certificates of Verification\) ^](#)

### NRCC Forms (Nonresidential Certificates of Compliance) v

The Nonresidential Certificates of Compliance (NRCC) are to demonstrate the construction documents are compliant with the Energy Code at the time of permit application.

Paper and dynamic pdf forms are no longer available for the 2025 Energy Code.

Use the Virtual Compliance Assistant to walk you through form completion and produce the pdf you can take to the Authority Having Jurisdiction for construction permit application.

2025-NRCC-CXR-E: Commissioning

[Fill in Online](#)

2025-NRCC-ELC-E: Electric Power Distribution

[Fill in Online](#)

2025-NRCC-ENV-E: Envelope

[Fill in Online](#)

2025-NRCC-LTI-E: Lighting - Indoor

[Fill in Online](#)

2025-NRCC-LTO-E: Lighting - Outdoor

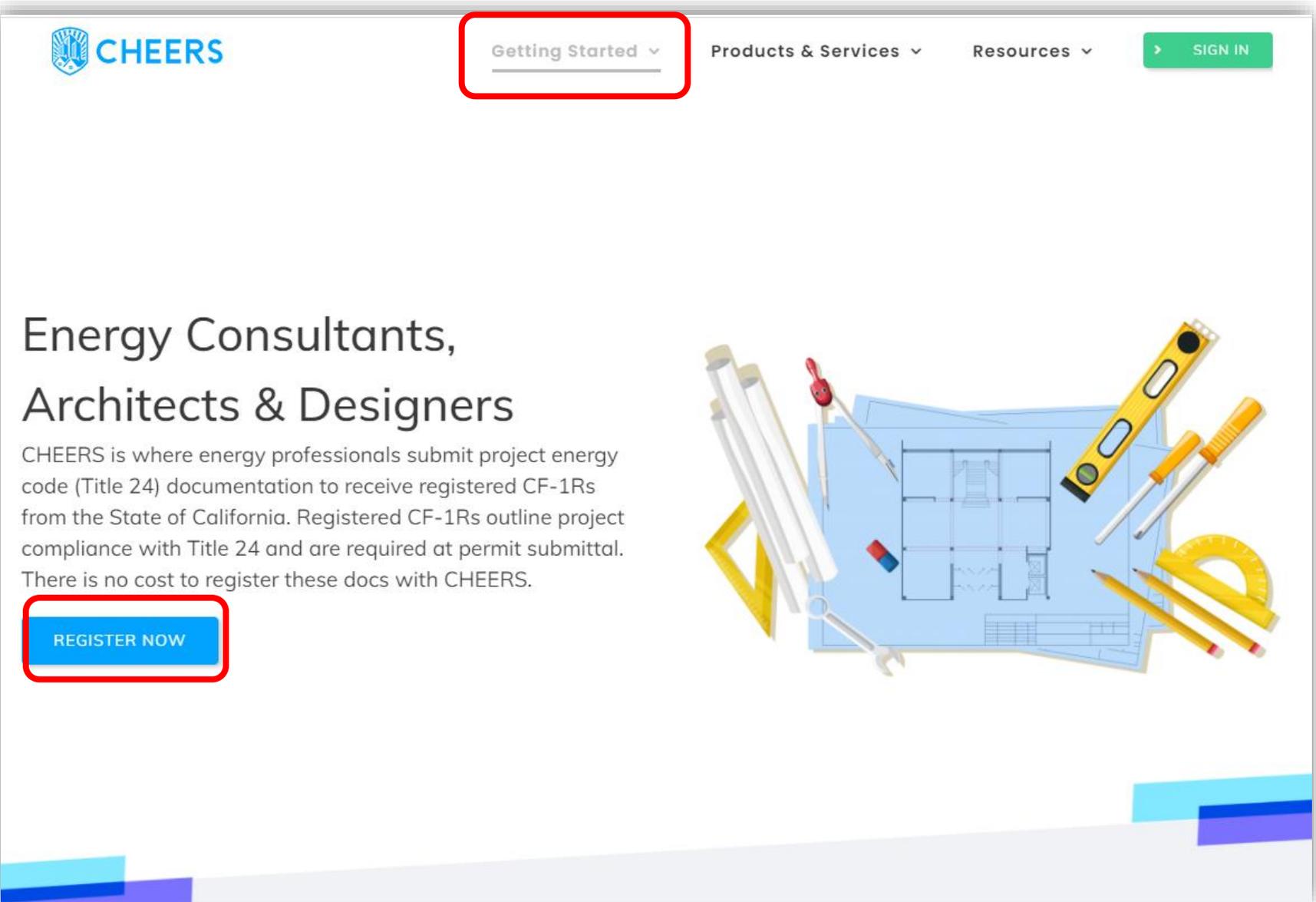
[Fill in Online](#)

2025-NRCC-LTS-E: Lighting - Sign

[Fill in Online](#)



# Low-Rise Residential –Title 24 Energy Documentation Registry



The screenshot shows the homepage of the CHEERS website. At the top left is the CHEERS logo. The navigation bar includes a dropdown menu for 'Getting Started' (highlighted with a red box), 'Products & Services', 'Resources', and a green 'SIGN IN' button. The main content area features the heading 'Energy Consultants, Architects & Designers' and a paragraph explaining that CHEERS is where energy professionals submit Title 24 documentation to receive registered CF-1Rs. A blue 'REGISTER NOW' button (highlighted with a red box) is located at the bottom left. The background of the main content area features an illustration of architectural tools like a level, pencil, and blueprint.

**CHEERS**  
[www.cheers.org](http://www.cheers.org)

CHEERS is a ECC (HERS) Provider (training programs and certification) and Registry for single family residential Energy Compliance Documentation



# Housing and Community Development (Title 25)

## www.hcd.ca.gov/building-standards/fbh

California Department of **Housing and Community Development**

Grants & Funding | Manufactured & Mobilehomes | **Building Standards** | Planning & Community Development | Policy & Research | About HCD

## Factory-Built Housing

Home > Building Standards > Factory-Built Housing

Factory-built housing is a factory-constructed version of a site-built residential building that is manufactured and then transported to its permanent installation location.

HCD's Factory-Built Housing (FBH) Program helps ensure the health and safety of persons using or purchasing factory-built homes or FBH building components and helps provide California residents with reduced housing costs through mass production techniques resulting from a factory production

### Applicable Laws, Regulations and Construction Standards

Factory-Built Housing Code Matrix		
Laws and Regulations	Construction Standards (Ref. HSC Section 19990, Title 25, CCR Section 3070)	Building Accessibility
<p><b>Laws:</b> California Health and Safety Code, Division 13, Part 6, section 19960, et seq.</p> <p><b>Regulations:</b> Title 25, California Code of Regulations, Division 1, Chapter 3, Subchapter 1, section 3000, et seq.</p>	<p>Title 24, California Code of Regulations, California Building Standards Code</p> <p>Part 2 California Building Code Part 2.5 California Residential Code Part 3 California Electrical Code Part 4 California Mechanical Code Part 5 California Plumbing Code Part 6 California Energy Code Part 11 California Green Building Standards Code</p>	<p>Title 24, California Code of Regulations, Part 2 (California Building Code), Chapters 2, 11A<sup>4</sup> and 11B<sup>5</sup></p>



### FACTORY-BUILT HOUSING HANDBOOK FOR LOCAL ENFORCEMENT AGENCIES, BUILDERS, AND THE GENERAL PUBLIC



State of California  
Business, Consumer Services and Housing Agency  
Department of Housing and Community Development  
Division of Codes and Standards

HCD FBH 314 (Rev. 11/20)

**Factory-Built Housing**

WHERE FOUNDATIONS BEGIN

State of California  
Department of Housing and Community Development  
Division of Codes and Standards  
Factory-Built Housing Program

P.O. Box 278186  
Sacramento, California 95827  
P. 916.952.8356  
F. 916.954.2564  
www.hcd.ca.gov

**FREQUENTLY ASKED QUESTIONS**

**Where can Factory-Built Housing (FBH) be installed?**  
FBH can be installed where other similar types of dwelling units are built or exist.

**To what standards are FBH products designed to conform?**  
The California Building Standards Code (Part 2, 2.5, 3, 4, 5, 6, and 11 of Title 24, California Code of Regulations).

**What FBH requirements are entirely reserved for the Local Enforcement Agency (LEA) to apply to FBH projects?**  
LEAs set site requirements, local snow load requirements, local wind pressure requirements, local fire codes, building setbacks, site and near-joint requirements, site development and property line requirements, as well as the review and regulation of architectural and aesthetic requirements.

**Who inspects FBH during construction in the manufacturing facility?**  
A Quality Assurance Agency (QAA) approved by HCD inspects FBH during construction in the factory or at an off-site location.

**Can the LEA charge to inspect the installation of FBH?**  
Yes, by local ordinance.

**Who inspects the installation of FBH on-site?**  
The LEA, or building department, is responsible for inspecting the assembly and installation of FBH products on-site.

**How does the LEA know what to inspect during the installation of FBH?**  
The LEA utilizes DAA-approved plans and a means of work that is pertinent to FBH installation to inspect FBH.

**How does the LEA know FBH structures have been inspected and approved?**  
The LEA utilizes DAA-approved plans and a means of work that is pertinent to FBH installation to inspect FBH.

**Where are FBH laws and regulations?**  
FBH laws are found in Division 13, Part 6 of the California Health and Safety Code. FBH regulations are found in Title 25, California Code of Regulations, Division 1, Chapter 3, Subchapter 1.

**Can FBH be altered during or after installation on-site?**  
Only when approved for such modifications is first obtained from the LEA before installation, or from the LEA during or after installation.

**How can I stay up-to-date on FBH news and information from HCD?**  
Sign up for HCD's email distribution list at the following link: www.hcd.ca.gov. Click on CONTACT or the top right then click on the "Email Sign-up" button.

hcd.ca.gov | 800.952.8356

Or  
Insig  
Thin  
Law  
Insp  
Forn

# More from the CEC... Energy.ca.gov

The screenshot shows the California Energy Commission website. The header includes the CEC logo and navigation menus for HOME, PROCEEDINGS, RULES AND REGULATIONS, PROGRAMS AND TOPICS, FUNDING, DATA AND REPORTS, and SHOWCASE. The main content area features a large blue wireframe graphic of a building and the title "Blueprint Newsletter". Below the title, there is a description of the newsletter and a "NEWSROOM" sidebar with links to News Releases, Highlights, Blog, and Blueprint Newsletter (highlighted with a red box).

- Published quarterly
- Short –quick read with packed info
- Common Q and A for code enforcement /interpretations
- Offers clarifications on code issues
- Keeps readers up to date on latest code concerns

The screenshot shows the content of the Blueprint Newsletter. It features a header with "Issue 151" and "Fall 2025". The main title is "BLUEPRINT CALIFORNIA ENERGY COMMISSION EFFICIENCY DIVISION". The content is organized into sections: "In This Issue" (listing various updates), "2025 Energy Code: Nonresidential Summary of Changes" (providing a detailed overview of code changes), and a list of specific updates. A red arrow points from the "Blueprint Newsletter" link in the sidebar to the "The CEC welcomes feedback on Blueprint" section at the bottom of the page.

**In This Issue**

- 2025 Energy Code: Nonresidential Summary of Changes
- First Hour Ratings for Storage Water Heaters
- ASHRAE Guideline 36 for the 2025 Energy Code
- AB130 Informational Bulletins
- CBECC 2025 Software Update
- EER/SEER Table Reference
- Energy Code Support Center Updates
- Q&A
  - Commercial Kitchens
  - Lighting
  - Solar PV

**2025 Energy Code: Nonresidential Summary of Changes**

The 2025 Energy Code adds new requirements for heat pump water heater (HPWH) installations in newly constructed buildings, including ventilation and pipe insulation. It also sets a new heat pump baseline for multizone space-conditioning systems serving office and school buildings under the prescriptive requirements. Other updates include increasing envelope efficiency, improved calculation methods for solar photovoltaic (PV) and battery energy storage system (BESS), expanded PV and BESS requirements for additional building types, clarifying and simplifying lighting requirements, and increased efficiency for pool- and spa-heating equipment.

**Solar PV and Battery Energy Storage Systems**

- Adds building types in Tables 140.10-A and 140.10-B: events and exhibits, religious worship, sports and recreation, as defined under Section 100.1. Section 140.10(a-b)

- Updates photovoltaic (PV) sizing – multiply square footage of total solar access roof area (SARA) by 18 W/sqft for steep-sloped roofs, and 14 W/sqft for low-sloped roofs. Section 140.10(a)
- Increases PV capacity factors in Table 140.10-A, Section 140.10(a) for:
  - Libraries in Climate Zones 2–16
  - Hotel/motel, medical office building/clinics, restaurants, retail, grocery in all climate zones
- Updates Exception 5 for tenant spaces no more than 2,000 square feet with separate utility meter and HVAC system in multitenant buildings. These spaces are excluded from the PV calculation. Section 140.10(a)
- Updates Equations 140.10-B, -C, and -D for determining BESS minimum energy and power capacities. Section 140.10(b)
- Revises Table 140.10-B, Section 140.10(b):
  - BESS capacity factors revised for all building types

The CEC welcomes feedback on Blueprint. Please contact the editor at [Title24@energy.ca.gov](mailto:Title24@energy.ca.gov)

<https://www.energy.ca.gov/newsroom/blueprint-newsletter>

# Questions about Title 24?

3C-REN offers a *free* Code Coach Service



Online:  
[3c-ren.org/code](https://3c-ren.org/code)

Call:  
805.781.1201

Energy Code Coaches are local experts who can help answer your Title 24 Part 6 or Part 11 questions.

They can provide code citations and offer advice for your res or non-res projects.



# Closing

## Continuing Education Units Available

- Contact [dresurreccion@co.slo.ca.us](mailto:dresurreccion@co.slo.ca.us) for AIA and ICC LUs

## Coming to Your Inbox Soon!

- Slides & Recording

## Upcoming Courses:

- [02/04 2025 Energy Code in Practice: Single Family Residential](#)
- [02/10 2025 California Energy Code & Passive House](#)
- [02/18 Builders Perspective: Heat Pump Water Heaters](#)
- [03/10 2025 Energy Code in Practice: Single Family Add & Alt](#)

**Any phone numbers who joined? Please share your name!**



# Thank you!

More info: [3c-ren.org](https://3c-ren.org)

Questions: [info@3c-ren.org](mailto:info@3c-ren.org)

Email updates: [3c-ren.org/newsletter](https://3c-ren.org/newsletter)



TRI-COUNTY REGIONAL ENERGY NETWORK  
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