

➤ Single-family Buildings What's Changed in 2025?



Using this Fact Sheet

Use this fact sheet if you need to examine the language of the 2025 California Building Energy Efficiency Standards (Energy Code or Title 24, Part 6) for single-family residential buildings.

- ✦ Energy Code changes are organized by building feature, such as envelope, electrical, etc.
- ✦ Each building feature section includes explanatory notes on all applicable sections.
- ✦ When language has been added or substantially revised, the intent of the language of the 2025 Energy Code is included.
- ✦ If there are no changes or minimal clean-up, those Energy Code sections are not included.
- ✦ To review Energy Code updates for other occupancy types, refer to these fact sheets: Nonresidential Buildings: What's Changed in 2025? and Multifamily Buildings: What's Changed in 2025?

What's Included:

This fact sheet describes changes made to the 2022 Energy Code and incorporated in the 2025 Energy Code for single-family buildings.

- ✦ Single-family dwellings
- ✦ Single-family accessory dwelling units
- ✦ Duplexes
- ✦ Townhomes of any size





Table of Contents

Mechanical Systems: Single-family Occupancies.....	2
Envelope: Single-family Occupancies.....	16
Photovoltaic, Battery Storage Systems, Solar and Battery Readiness.....	22
Electrical Systems: Lighting and Electric Readiness.....	26
For More Information.....	27



Mechanical Systems: Single-family Occupancies

Table 1: Changes to the 2025 Energy Code, Mechanical Systems

Building Application	 Mandatory		 Prescriptive Subchapter 8 (\$150.1)	 Performance Subchapter 8 (\$150.1)	 Additions and Alterations Subchapter 9 (\$150.2)	Reference Appendices
	All Occupancy Subchapters 1-2 (\$§100.0-110.12)	Subchapter 7 (\$150.0)				
General	§100.0 Revised §100.1 Revised §100.2 Revised §§110.0-.1 No Change	N/A	§150.1(a) No Change	§150.1(b) Revised	N/A	JA2 Weather and Climate: No Change JA3 Energy Budget: Revised
Heating, Ventilation, Air Conditioning (HVAC) (conditioned spaces)	§110.2 Revised §110.5 No Change	§150.0(h) Revised §150.0(i) Revised §150.0(m) Revised	§150.1(c)6 Revised §150.1(c)7 Revised §150.1(c)9 Revised §150.1(c)10 No Change §150.1(c)12 No Change §150.1(c)13 No Change	§150.1(b) Revised	§150.2(a) Revised §150.2(b)1C No Change §150.2(b)1D No Change §150.2(b)1E No Change §150.2(b)1F Revised §150.2(b)1G No Change	JA5 OCST Thermostats: Revised JA6 HVAC System FDD: Revised JA9 Low Leakage AHU: No Change RA1 Refrigerant Charge: No Change RA2 Field Verification and Diagnostic Testing: Revised RA3 Field Verification and Diagnostic Protocols: Revised RA4.3 HVAC Measures: No Change
Indoor Air Quality	N/A	§150.0(o) Revised	§150.1(c)15 NEW!	§150.1(b) Revised	§150.2(b)1L No Change §150.2(b)1M No Change	JA17 Fault Indicator Display (FID): NEW! RA2 Field Verification and Diagnostic Testing: Revised RA3 Field Verification and Diagnostic Protocols: Revised
Water Heating	§110.3 Revised	§150.0(i) Revised §150.0(n) Revised	§150.1(c)8 Revised	§150.1(b) Revised	§150.2(b)1H No Change	JA13 HPWH Demand Management: Revised RA4.4 Water Heating Special Measures: Revised
Pool and Spa	§110.4 Revised §110.5 No Change	§150.0(p) Revised	N/A	N/A	§150.0(p) Revised	JA16 Criteria for Pool and Spa Heating: NEW!

Title 24, Part 1

Article 1 – Energy Building Regulations



› Mandatory

› Section 10-103.3 Administrative Procedures for the Energy Code Compliance Program

§10-103.3 “Administrative Procedures for Energy Code Compliance Program (ECC)”

NEW!: Program requirements moved from Title 20 to Title 24. Home Energy Rating System (HERS) is now called Energy Code Compliance (ECC). New requirements are introduced for both ECC-Raters and ECC-Providers.

Title 24, Part 6

Subchapter 1 – All Occupancies

General Provisions



› Mandatory

› Section 100.1 Definitions and Rules of Construction

NEW!: **Air-to-Water Heat Pump (AWHP)** is a factory-made packaged heat pump system containing one or more compressors, and heat exchangers for transferring heat between refrigerant and air, as well as between refrigerant and water, and various other components. Its primary purpose is to generate heated or cooled water to meet space conditioning loads, domestic hot water loads, or both.

Revised: **Energy Budget** is the maximum energy consumption that a proposed building, or portion of a building, can be designed to consume, calculated using Commission-approved compliance software as specified by Section 10-109 of the Energy Code and the Alternative Calculation Method Reference Manual. The Energy Budget for newly constructed buildings are expressed in terms of the Long-term System Cost (LSC) and Source Energy. The energy budget for Additions and Alterations is expressed in terms of LSC.

Revised: **Energy Efficiency Ratio 2 (EER2)** is the ratio of the average rate of space cooling capacity (Btu/h) delivered to the average rate of electrical energy consumed by the air conditioner or heat pump as determined in accordance to the test method in 10CFR430 Subpart B Appendix M1. EER is expressed in Btu/Wh.

NEW!: **Long-term System Cost (LSC)** is the CEC- projected present value of costs to California’s energy system over a period of 30 years. LSC does not represent a prediction of individual utility bills.

NEW!: **Net Free Area (NFA)** is the total unobstructed area within the air gaps between louver and grille slats in a vent, allowing the passage of air. The narrowest distance between two slats, perpendicular to the surface of both slats is the air gap height. The narrowest width of the gap is the air gap width. The NFA is the air gap height multiplied by the air gap width multiplied by the total number of air gaps between slats in the vent.

Revised: **Pools** is any structure or product intended for swimming, bathing or wading; designed and manufactured to be connected to a circulation system; and not intended to be drained and filled with each use. This includes, but is not limited to, inground, above ground, and on ground pools; and wading pools.

Subchapter 1 – All Occupancies

General Provisions *(continued)*



› **Mandatory**

› **Section 100.1 Definitions and Rules of Construction** *(continued)*

Revised: **Pools, Residential** is a pool intended for use that is accessory to a residential setting and available only to the household and its guests, and with specifications as defined within the scope of either ANSI/APSP/ICC-4, 2012 (R2022) or ANSI/APSP/ICC-5, 2011 (R2022).

NEW!: **Pool Pump, Dedicated-Purpose** refers to a category of pumps designed specifically for various pool related functions. This includes self-priming pool filter pumps, non-self-priming pool filter pumps, waterfall pumps, pressure cleaner booster pumps, integral sand-filter pool pumps, integral-cartridge filter pool pumps, storable electric spa pumps, and rigid electric spa pumps, as defined by 20 CCR §1602(g)(4).

NEW!: **Pool, Public** is a pool other than a residential pool, that is intended to be used for swimming or bathing and is operated by an owner, lessee, operator, licensee, or concessionaire, regardless of whether a fee is charged for use. Public pools include pools installed in private settings such as multifamily residential buildings or hotels that are available exclusively for use by tenants or guests.

NEW!: **Portable Electric Spa** is a factory-built electric spa or hot tub, supplied with equipment for heating and circulating water at the time of sale or sold separately for subsequent attachment, as defined by 20 CCR §1602(g)(2).

NEW!: **Recovered Energy, On-Site** is recovered energy that is captured at the building site.

NEW!: **Self-Utilization Credit** is the limited Efficiency LSC energy budget compliance credit available for combined PV and battery energy storage systems for single-family, as specified by the Residential ACM Reference Manual, and low-rise multifamily, as specified by the Nonresidential and Multifamily ACM Reference Manual.

NEW!: **Single Zone Constant Volume Heat Pump (SZHP)** is an Air-source Heat Pump which uses a supply fan whose speed does not vary.

NEW!: **Solar Pool Heating System** is an assembly of components designed to heat water for swimming pools, spas, or swimming pool and spa combinations by solar thermal means, excluding pool recirculation components.

Revised: **Source Energy** is defined as the long run hourly marginal source energy of fossil fuels that are combusted as a result of building energy consumption either directly at the building site or caused to be consumed to meet the electrical demand of the building considering the long-term effects of Commission-projected energy resource procurement. For a given hour, the value in that hour for each forecasted year is averaged to establish a lifetime average source energy.

Title 24, Part 6

Subchapter 1 – All Occupancies

General Provisions *(continued)*



› Mandatory

› Section 100.1 Definitions and Rules of Construction *(continued)*

Revised: **Water Heater** definitions include the following:

Consumer Water Heater is a water heater that meets the definition of a consumer product under USDOE 10 CFR 430.

Heat Pump Water Heater (HPWH) is a water heater that transfers thermal energy from one temperature level to another temperature level for the purpose of heating water, including all ancillary equipment such as fans, storage tanks, pumps, or controls necessary for the device to perform its function.

- ✦ **Integrated Heat Pump Water Heater** is a HPWH which has all components, including fans, storage tanks, pumps, or controls necessary for the device to perform its function contained in a single factory-made assembly.
- ✦ **Split-Refrigerant Heat Pump Water Heater** is a HPWH which has a single outdoor section and one or more indoor sections connected to the outdoor section via a refrigerant circuit.
- ✦ **Split-Hydronic Heat Pump Water Heater** is a HPWH that consists of multiple separate sections. One section houses all the refrigerant components, while one or more additional sections are designated for water storage. These sections are interconnected through a hydronic circuit.



› Mandatory

› Section 100.2 Calculation of Energy Budgets

Revised: When using the performance approach for compliance, the energy budget for all newly constructed single-family buildings is now expressed in terms of Long-term System Cost (LSC) and Source Energy. The energy budget for additions and alterations are expressed in terms of LSC.

LSC is calculated by multiplying the buildings annual hourly site energy use for each fuel type by the CEC published LSC hourly factors, which vary for each hour of the year based on the energy type, Climate Zone, and building type. All other depletable energy sources other than electricity and natural gas must use the LSC factors for propane. A summary of LSC hourly factors is found in the Reference Joint Appendix JA3.

Source Energy is calculated by multiplying the annual hourly site energy use by Btu factors for fossil fuel used directly or indirectly at the building site, or to meet the electrical demand of the building.

Title 24, Part 6

Subchapter 2 – All Occupancies

Mandatory Requirements for the Manufacture, Construction and Installation of Systems, Equipment and Building Components



› Mandatory

› Section 110.2 Mandatory Requirements for Space-Conditioning Equipment

§110.2(a) “Efficiency”

Revised: When a Federal Minimum Efficiency dictates, the Energy Code no longer reports the required efficiency value. This will require the use of Title 20 to determine minimum efficiency. As a result, the following tables are no longer supported in Title 24, Part 6:

- ✦ **Removed:** Table 110.2-E “Packaged Terminal Air Conditioners (PTAC) and Packaged Terminal Heat Pumps (PTHP)”
- ✦ **Removed:** Table 110.2-I “Warm-Air Furnaces and Combination Warm-Air Furnaces/Air-Conditioning Units, Warm-Air Duct Furnaces, and Unit Heaters”

The following tables include new revised efficiency minimums including referring to Federal Minimum Efficiency, when applicable:

- ✦ **Revised:** Table 110.2-A “Air Conditioners and Condensing Units”
- ✦ **Revised:** Table 110.2-B “Heat Pumps, Minimum Efficiency Requirements”
- ✦ **Revised:** Table 110.2-F (used to be 110.2-G) “Electrically Operated Variable Refrigerant Flow (VRF) Air Conditioners Air-to-Air and Applied Heat Pumps - Minimum Efficiency Requirements”
- ✦ **Revised:** Table 110.2-G (used to be 110.2-H) “Electrically Operated Variable Refrigerant Flow Air-to-Air and Applied Heat Pumps”
- ✦ **Revised:** Table 110.2-H (used to be 110.2-K) “DX-DOAS Units, Single-Package and Remote Condenser” no longer supports non energy recovery systems

§110.2(b) “Controls for Heat Pumps with Supplementary Heaters”

Revised: Requirements revised for when heat pumps with supplementary heating are installed, excluding room air-conditioner heat pumps. The controls must:

1. **No change:** Supplementary heater controls.
2. Control requirements revised to require heat pump cut-on and cut-off temperature set points to be higher than supplemental heating cut-on and cut-off temperature set points.

Subchapter 2 – All Occupancies

Mandatory Requirements for the Manufacture, Construction and Installation of Systems, Equipment and Building Components *(continued)*



› Mandatory

› Section 110.3 Mandatory Requirements for Service Water-Heating Systems and Equipment

§110.3(c)7 “Installation – Heat Pump Water Heaters (HPWH)”

NEW!: There are new requirements for air-source heat pump water heaters regarding backup heat and ventilation.



› Mandatory

› Section 110.4 Mandatory Requirements for Pool and Spa Systems and Equipment

§110.4(a) through (d) “Pools and Spa Systems and Equipment”

Revised: a) Certification by Manufacturers: Manufacturers are now required to include an energy efficiency rating within the permanent plate or card in addition to supporting the instructions for the energy efficiency operation of the pool or spa. There are no other substantive changes to the section.

b) Installation: Heating equipment must comply with the standard requirements of Table 110.4-A “Heating Equipment Standards.” The piping length between the filter and heater, or dedicated suction and return lines, has changed from 36” to 18.” Covers are required for electric or gas heated pools or spas. Time switches (or similar) must be permanently installed.

c) Heating Source Sizing: The newly installed heating source must be either a solar thermal system sized to 65% or more of the surface area for a public pool (if a residential pool or spa is serving only one dwelling unit, then it will meet the same requirements as single-family, which is 60%); a heat pump meeting JA16.3 “Criteria for Pool and/or Spa Heating” and supplementary heating controls per Section 110.4(d) “Controls for Heat Pump Pool Heaters with Supplementary Heating;” a solar system combined with a heat pump pool heater; or an on-site renewable or recovered energy system that provides 60% or more of the annual heating energy. Exceptions may apply, such as Alterations to existing heated pools or spas.

d) Controls for Supplementary Heating: Controls are required so that supplementary heating does not operate when the heating load can be met by a heat pump pool heater. Additionally, cut-on and cut-off temperatures for heat pump heating must be set higher than those set for supplementary heating.

Title 24, Part 6

Subchapter 7 – Single-Family Residential Buildings

Mandatory Features and Devices



› Mandatory

› Section 150.0 – Mandatory Features and Devices

§150.0(h) “Space-conditioning Equipment”

Revised: Revised space-conditioning equipment requirements:

1. **No change** to the heating and cooling load calculation methodology. A **new exception** allows block loads to be used for HVAC system sizing for Additions.
2. **No change** to the indoor design conditions. Outdoor design conditions now include two additional sources: ASHRAE Handbook Fundamentals and ACCA Manual J. The SMACNA Residential Comfort System Installation Standards Manual was removed as an outdoor design condition source.
3. **No change:** Outdoor condensing units.
4. **No change:** Central forced-air heating furnaces.
5. **NEW!** New space conditioning system selection requirements, including equipment sizing to meet the cooling and heating load and equipment must be sized based on ACCA Manual S-2023.
6. **NEW!** New heat pump installation requirements apply when a defrost delay timer is installed; delay timer must be set to greater than or equal to 90 minutes.
7. **NEW!** Heat pumps equipped with supplementary heating now require controls to lock out supplementary heating when ambient outdoor temperature is greater than 35°F, unless used for defrost or emergency operation.
8. **NEW!** New requirements for heat pumps equipped with electric resistance supplementary heating to limit the capacity of heat strips to 2.7 kW per ton, based on the nominal cooling capacity.
9. **NEW!** New requirements for space-conditioning systems with variable- or multi-speed compressors. The unit and thermostat must be capable of responding to heating and cooling loads by modulating system compressor speed.

§150.0(i) “Thermostats”

Revised: New thermostat requirements for heat pumps equipped with supplemental heating to require thermostat to display outdoor air temperature via a sensor or internet weather service; lock out supplemental heating when outdoor air is greater than 35°F; display when supplementary heat or emergency heat is in use; and allow supplementary or emergency heat to be used above 35°F.

Title 24, Part 6

Subchapter 7 – Single-Family Residential Buildings

Mandatory Features and Devices *(continued)*



› **Mandatory**

› **Section 150.0 – Mandatory Features and Devices** *(continued)*

§150.0(m)1Bi-ii “Air Distribution and Ventilation System Ducts, Plenums, and Fans: CMC Compliance”

Revised: New exception for air-distribution system insulation requirements when ducts are located in an unvented attic.

All of the following must be met:

- a. R-4.2 ducts may be installed in the attic when at least R-30 insulation is installed below the roof deck.
- b. All attic gable end walls are insulated to the same insulation level as prescriptively required.
- c. Building air-leakage rate is three ACH50 or lower, verified by an ECC-Rater.

Clarification provided for ducts located in conditioned space. Ducts must be located below the ceiling separating the occupiable space from the attic.

§150.0(m)13C “Zonally Controlled Central Forced Air Systems”

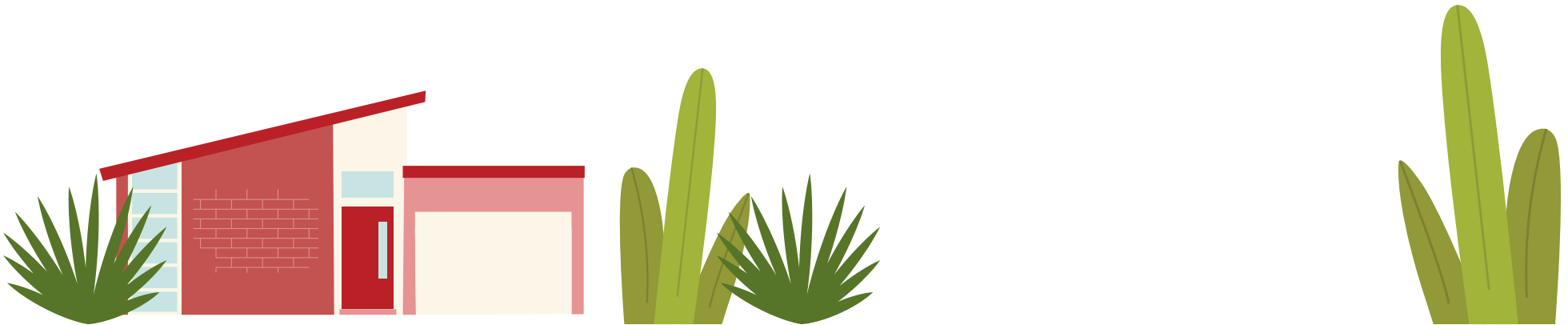
Revised: The exception to zonally controlled central forced air systems now only applies to multi-speed or variable-speed systems with controls that vary the fan speed to the number of zones.

§150.0(n)1Ai “Water-heating System – Heat Pump Ready Dedicated Electrical Requirements”

Revised: Removed the requirement for specified conductor size and added a minimum branch circuit rating of 30 amps.

§150.0(n)1B2 “Water-heating System – Recirculation Loops”

Revised: Removed water heating recirculation loops serving multiple dwelling units since that is supported in the multifamily subchapters.



Subchapter 7 – Single-Family Residential Buildings

Mandatory Features and Devices *(continued)*



› **Mandatory**

› **Section 150.0 – Mandatory Features and Devices** *(continued)*

§150.0(o)1C “Whole-dwelling Unit Mechanical Ventilation for Single-family Dwellings”

Revised: Revised whole-dwelling unit mechanical ventilation requirements to only allow single-family dwellings and attached dwelling units not sharing ceilings or floors with other dwelling units (or other specified spaces) to reduce the required mechanical ventilation rates in accordance with subsections ii “Effective Annual Average Infiltration Rate” and iii “Required Mechanical Ventilation Rate.”

New requirements when balanced and supply-only ventilation systems are installed: Indoor air quality (IAQ) filter and heat recovery ventilator (HRV) or energy recovery ventilator (ERV) systems are now required to be accessible for service from within occupiable spaces, basements, garages, balconies, and mechanical closets. If located behind access panels, doors, or grilles, the filter and HRV or ERV system must be no more than 10’ above a walking surface inside the space.

Exception: Systems that require servicing from inside the attic shall have a fault indicator display (FID), an access door with an integrated ladder, and a walkway from the attic access door to the HRV or ERV.

Fans, motors, heat exchangers, filters, and recovery cores must meet all applicable requirements of California Mechanical Code Section 304.0 accessibility for service. Outdoor air intakes shall comply with California Mechanical Code Section 402.4.1. Outdoor air intakes shall be accessible, and not more than 10 feet above a walking surface. If located on roofs, they shall meet the requirements of California Mechanical Code Section 304.3.1, except when equipped with an FID.

§150.0(o)1G “Local Mechanical Exhaust”

Revised: Table 150.0-E “Demand-Controlled Local Ventilation Exhaust Airflow Rates and Capture Efficiency” has been revised to combine enclosed and non-enclosed kitchen requirements, allowing other kitchen exhaust fans including downdraft: 300 cfm (150 L/s). Enclosed kitchens are no longer allowed to use a capacity of five ACH for compliance.

§150.0(p) “Pool Systems and Equipment Installation”

Revised: Pump sizing and flow rate for single-family buildings have been revised:

- ✦ New pump designations for dedicated-purpose pool pumps and replacement dedicated-purpose pump motors have been added, which include requirements to meet applicable Appliance Efficiency Regulations.
- ✦ Requires dedicated-purpose pool pumps with more than one speed to have controls that default to the filtration flow rate when no auxiliary pool loads are operating, have controls that default to filtration flow rate setting within 24 hours, and have an override capability for servicing.

Subchapter 8 – Single-Family Residential Buildings

Performance and Prescriptive Compliance Approaches for Single-Family Residential Buildings



› Performance

› Section 150.1 Performance Approach

§150.1(b)1 “Performance Approach”

Revised: Proposed Design building to be no greater than the energy budget calculated for the Standard Design building using CEC-certified compliance software as specified by §10-109(c) “Compliance Software” and §10-116 “Third.”

Energy Budget. The energy budget is expressed in terms of long-term system cost and source energy.

- ✦ **Long-term System Cost (LSC).** The LSC energy budget is determined by applying the Mandatory and Prescriptive Requirements of the Standard Design to the Proposed Design building and has two components, the **Efficiency LSC** and the **Total LSC**. The **Efficiency LSC** energy is the sum of the LSC energy for space-conditioning, water-heating, mechanical ventilation, and self-utilization credit(s). **Total LSC** energy is the sum of the Efficiency LSC energy and LSC energy from the PV system, battery energy storage systems (BESS), lighting, demand flexibility, and other plug loads.
- ✦ **Source Energy.** Source Energy reflects the long run marginal source energy of fossil fuels that are combusted as a result of building energy consumed either directly at the building site or to meet the electrical demand of the building.



› Prescriptive

› Section 150.1 Prescriptive Compliance Approaches for Single-Family Residential Buildings

§150.1(c)6 “Heating System Type”

Revised: The prescriptive requirement for heating system type has been expanded to require a heat pump for all 16 CZs. The prescriptive requirement allowing the use of a gas space heating system has been removed. Table 150.1-A “Component Package – Single-family Standard Building Design” has been updated to require a heat pump space heating system and to not allow gas space heating prescriptively for all 16 CZs.

§150.1(c)7A “Space Heating and Space Cooling”

Revised: The prescriptive refrigerant charge requirement has been revised to remove the compliance option of a fault indicator display. Table 150.1-A “Component Package – Single-family Standard Building Design” was revised to require refrigerant charge verification to apply to air conditioners and heat pumps separately. Heat pump systems are now required to meet refrigerant charge verification in all 16 CZs. There are no changes to the refrigerant charge verification requirements for air conditioners.

Title 24, Part 6

Subchapter 8 – Single-Family Residential Buildings

Performance and Prescriptive Compliance Approaches for Single-Family Residential Buildings *(continued)*



› Prescriptive

› Section 150.1 Prescriptive Compliance Approaches for Single-Family Residential Buildings *(continued)*

§150.1(c)8 “Domestic Water-heating Systems”

Revised: **Exception 1** allowing a gas or propane instantaneous water heater to be installed in CZs 3, 4, 13, and 14 has been removed. **Exception 2** has been revised to remove the term “instantaneous,” and instead now allows all electric water heater types with point-of-use distribution for new dwelling units with a conditioned floor area of less than or equal to 500 ft².

§150.1(c)9B “Space Conditioning Distribution Systems”

Revised: Ducts and air-handlers must be located entirely in conditioned space in dwelling units with attics and must be located below the ceiling separating the occupiable space from the attic.

§150.1(c)15 “Ventilation FID”

NEW!: New prescriptive requirement for all HRV/ERV systems serving individual dwellings must have a ventilation system fault indicator display (FID) and be verified by an ECC-Rater. Table 150.1-A “Component Package – Single-family Standard Building Design” now includes a prescriptive requirement for FID if an HRV/ERV is installed for all 16 CZs.

Title 24, Part 6

Subchapter 9 – Single-Family Residential Buildings

Additions and Alterations to Existing Residential Buildings



› Additions and Alterations

› Section 150.2 Energy Efficiency Standards for Additions and Alterations to Existing Single-Family Residential Buildings

§150.2(a)1D “Additions – Water Heater”

Revised: Water heater prescriptive requirements have been revised so that when an additional water heater is installed as part of the Addition:

- ✦ **Electric Resistance Option:** The term “instantaneous” has been removed which now allows all electric water heater types with point-of-use distribution for Additions that are less than or equal to 500 ft².
- ✦ **Instantaneous Gas Option:** Removed.
- ✦ **Heat Pump Options:** *No change.*

Subchapter 9 – Single-Family Residential Buildings

Additions and Alterations to Existing Residential Buildings *(continued)*



› Additions and Alterations

› Section 150.2 Energy Efficiency Standards for Additions and Alterations to Existing Single-Family Residential Buildings *(continued)*

§150.2(a)1E “Additions – Space-conditioning Load Calculations and System Capacity”

NEW!: Space-conditioning systems serving Additions must meet the minimum capacity limits and supplemental heating requirements as described in §150.0(h) “Space-conditioning Equipment.”

- ✦ Maximum heating and cooling systems capacity is determined on the type of space conditioning system and the duct sizing.
- ✦ Systems where the airflow is field verified to be at least 350 CFM/ton are not required to meet a maximum capacity limit.
- ✦ Systems where the airflow is NOT field verified to be at least 350 CFM/ton, the system capacities cannot be larger than what is indicated in Table 150.2-A for heating and Table 150.2-B for cooling.

Exceptions: Ductless space-conditioning systems; variable-speed and multi-speed systems can install the larger of two available capacities if the proposed equipment capacity falls between capacities listed in Tables 150.2-A “Maximum Heating Capacity” or 150.2-B “Maximum Cooling Capacity.”

- ✦ The specified envelope leakage rate used in load calculations for Additions cannot exceed the specified envelope leakage rate values listed in Table 150.2-C “Maximum Infiltration Air Changes per Hour for Load Calculations.”

Exception: When envelope air leakage is field verified, the tested leakage may be used in the load calculations.

Table 150.2-A Maximum Heating Capacity

System Type	Maximum Heating Capacity for Heating Only Systems	Heat Pump Maximum Heating Capacity when HL is greater than CL	Heat Pump Maximum Heating Capacity when CL is greater than HL by less than 12 kBtuh	Heat Pump Maximum Heating Capacity when CL is greater than HL by 12 kBtuh or more
Single-Speed System Capacity	HL + 6 kBtuh	No Maximum	HL + 12 kBtuh	No Maximum
Variable- or Multi-Speed System Maximum Capacity	HL + 6 kBtuh	No Maximum	HL + 12 kBtuh	No Maximum
Variable- or Multi-Speed System Capacity at Lowest Speed	80% of HL	80% of HL	No Maximum	No Maximum

HL and CL refer to the design heating load and design cooling load, respectively.

Subchapter 9 – Single-Family Residential Buildings

Additions and Alterations to Existing Residential Buildings *(continued)*



› Additions and Alterations

› Section 150.2 Energy Efficiency Standards for Additions and Alterations to Existing Single-Family Residential Buildings *(continued)*

§150.2(a)1E “Additions – Space-conditioning Load Calculations and System Capacity” *(continued)*

Table 150.2-B Maximum Cooling Capacity

System Type	Maximum Cooling Capacity for Cooling Only Systems	Heat Pump Maximum Cooling Capacity when HL is greater than CL	Heat Pump Maximum Cooling Capacity when CL is greater than HL by less than 12 kBtuh	Heat Pump Maximum Cooling Capacity when CL is greater than HL by 12 kBtuh or more
Single-Speed System Capacity	CL + 6 kBtuh	No Maximum	CL + 6 kBtuh	CL + 6 kBtuh
Variable- or Multi-Speed System Maximum Capacity	CL + 6 kBtuh	No Maximum	CL + 6 kBtuh	CL + 6 kBtuh
Variable- or Multi-Speed System Capacity at Lowest Speed	80% of CL	No Maximum	80% of CL	80% of CL

HL and CL refer to the design heating load and design cooling load, respectively.

Table 150.2-C Maximum Infiltration Air Changes Per Hour for Load Calculations

Floor Area of Conditioned Space	Single Story Heating	Single Story Cooling	Two Story Heating	Two Story Cooling	Townhouse or Condominium Heating	Townhouse or Condominium Cooling
ACH for ≤ 900 ft²	0.61	0.32	0.79	0.41	0.69	0.36
ACH for 901–1,500 ft²	0.45	0.23	0.80	0.30	0.50	0.27
ACH for 1,501–2,000 ft²	0.38	0.20	0.50	0.26	0.43	0.23
ACH for 2,001–3,000 ft²	0.32	0.16	0.41	0.21	0.36	0.19
ACH for ≥ 3,001 ft²	0.28	0.15	0.37	0.19	0.32	0.17
CFM for one Fireplace	20	0	20	0	20	0

Title 24, Part 6

Subchapter 9 – Single-Family Residential Buildings

Additions and Alterations to Existing Residential Buildings *(continued)*



› **Additions and Alterations**

› **Section 150.2 Energy Efficiency Standards for Additions and Alterations to Existing Single-Family Residential Buildings** *(continued)*

§150.2(a)2D “Addition – Performance Approach: Space-conditioning Load Calculations and System Capacity”

Revised: New requirement for Additions to meet all applicable load calculation requirements specified in §150.2(a)1E “Additions - Space-conditioning Load Calculations and System Capacity.”

§150.2(b)1C “Alteration – Entirely New or Complete Replacement Space-conditioning Systems”

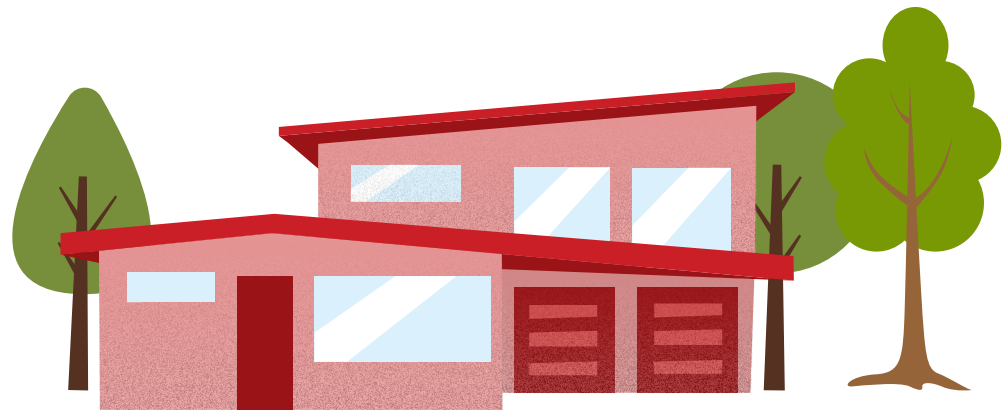
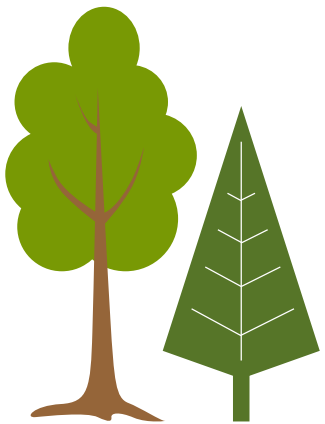
Revised: Central air-cooled air conditioners installed in CZs 2 and 8–15 and central heat pumps installed in all CZs must meet the minimum system airflow and refrigerant charge verification requirements as specified in §150.2(b)1Fii “Air-cooled Air Conditioners and Air-source Heat Pumps.”

§150.2(b)1Fiib “Altered Space-conditioning System – Mechanical Cooling”

Revised: Removed the option to install a fault indicator display (FID) device





§150.2(b)1Fiii “Alteration – Air-cooled Air Conditioners and Air-source Heat Pumps”

Revised: Central air-cooled air conditioners installed in CZs 2 and 8–15 and central air-source heat pumps installed in all CZs to meet the minimum system airflow and refrigerant charge verification requirements.



Envelope: Single-family Occupancies

Table 2: Changes to the 2025 Energy Code, Envelope

Building Application	 Mandatory		 Prescriptive Subchapter 8 (\$150.1)	 Performance Subchapter 8 (\$150.1)	 Additions and Alterations Subchapter 9 (\$150.2)	Reference Appendices
	All Occupancy Subchapters 1-2 (§§100.0-110.12)	Subchapter 7 (\$150.0)				
General	§100.0 Revised §100.1 Revised §100.2 Revised §§110.0-.1 No Change	N/A	§150.1(a) No Change	§150.1(b) Revised	N/A	JA2 Weather/Climate: No Change JA3 Energy Budget: Revised
Envelope (conditioned)	§§110.6-8 No Change	§150.0(a) Revised §150.0(b) No Change §150.0(c) Revised §150.0(d) No Change §150.0(e) No Change §150.0(f) No Change §150.0(g) No Change §150.0(q) Revised	§150.1(c)1 Revised §150.1(c)2 No Change §150.1(c)3 Revised §150.1(c)4 Revised §150.1(c)5 No Change §150.1(c)11 No Change	§150.1(b) Revised	§150.2(a) Revised §150.2(b)1A Revised §150.2(b)1B Revised §150.2(b)1I No Change §150.2(b)1J Revised §150.2(b)1N No Change	JA4 U-factor/C-Factor/ Thermal Mass: Revised Table 4.2.5 RA2 Field Verification/ Diagnostic Testing: Revised RA3 Field Verification/ Diagnostic Protocols: Revised RA4 Energy Efficiency Measures: No Change NA6 Alternate Fenestration Method (COG): No Change

Title 24, Part 6

Subchapter 1 – All Occupancies

General Provisions



› Mandatory

› Section 100.1 Definitions And Rules of Construction

NEW!: **Cathedral Ceiling** is an exterior partition with a slope less than 60 degrees from horizontal that is created by applying the ceiling directly to the underside of the roof framing members and applying structural roof sheathing directly to the top of the roof framing members/rafters. It may be flat or sloped and vented or unvented.

Subchapter 1 – All Occupancies

General Provisions *(continued)*



› **Mandatory**

› **Section 100.1 Definitions And Rules of Construction** *(continued)*

Revised: **Energy Budget** is the maximum energy consumption, that a proposed building, or portion of a building, can be designed to consume, calculated using Commission-approved compliance software as specified by Section 10-109 of the Energy Code and the Alternative Calculation Method Reference Manual. The Energy Budget for newly constructed buildings are expressed in terms of the Long-term System Cost (LSC) and Source Energy. The energy budget for Additions and Alterations is expressed in terms of LSC.

NEW!: **Long-Term System Cost (LSC)** is the CEC-projected present value of costs to California's energy system over a period of 30 years. LSC does not represent a prediction of individual utility bills.

Revised: **Source Energy** is defined as the long run hourly marginal source energy of fossil fuels that are combusted as a result of building energy consumption either directly at the building site or caused to be consumed to meet the electrical demand of the building considering the long-term effects of Commission-projected energy resource procurement. For a given hour, the value in that hour for each forecasted year is averaged to establish a lifetime average source energy.



› **Mandatory**

› **Section 100.2 Calculation of Energy Budgets**

Revised: When using the Performance Approach for compliance, the energy budget for all newly constructed multifamily buildings is now expressed in terms of LSC and Source Energy. The energy budgets for Additions and Alterations are expressed in terms of LSC.

LSC is calculated by multiplying the building's annual hourly site energy use for each fuel type by the CEC-published LSC hourly factors, which vary for each hour of the year based on the energy type, Climate Zone, and building type. All depletable energy sources other than electricity and natural gas must use the LSC factors for propane. A summary of LSC hourly factors is found in the Reference Joint Appendix JA3.

Source Energy is calculated by multiplying the annual hourly site energy use by Btu factors for fossil fuel used directly or indirectly at the building site, or to meet the electrical demand of the building.

Title 24, Part 6

Subchapter 2 – All Occupancies

Mandatory Requirements for the Manufacture, Construction and Installation of Systems, Equipment, and Building Components



› Mandatory

› Section 110.8 – Mandatory Requirements For Insulation, Roofing Products, and Radiant Barriers

§110.8(i)3 “Solar Reflectance Index (SRI)”

Revised: Solar Reflectance Index (SRI), calculated as specified by ASTM E1980-1 (2019), may be used as an alternative to thermal emittance and an aged solar reflectance. SRI calculations must use Approach I from Section 6.1.1 of ASTM E1980-11 (2019) using only equation one and three and a moderate wind velocity of two to six meters per second.

Title 24, Part 6

Subchapter 7 – Single-Family Residential Buildings

Mandatory Features and Devices



› Mandatory

› Section 150.0 – Mandatory Features and Devices

§150.0(a) “Roof Deck, Ceiling, and Rafter Roof Insulation”

Revised: Clarification provided in which newly constructed attics **that are above conditioned space** must be insulated to achieve an area-weighted average U-factor less than or equal to 0.184. **Exceptions:** Ductless space-conditioning systems have been added along with space-conditioning duct systems buried within insulation in an attic that comply using the Performance Approach and are ECC-verified.

§150.0(c) “Wall Insulation”

Revised: The maximum overall assembly U-factor for 2x4 framing has been changed to 0.095, and the maximum overall assembly U-factor for 2x6 framing has been changed to 0.069. Clarification that masonry also includes “mass” walls to meet the wall insulation requirements of Table 150.1-A “Component Package – Single-family Standard Building Design.”

Revised to require wall insulation in wood framed assemblies with 16 inches on center spacing to meet an R-value of R-15 in 2x4 assemblies, and R-21 in 2x6 assemblies.

§150.0(q) “Fenestration”

Revised: Clarification supporting that skylight products are considered fenestration. All fenestration products must have a weighted average U-factor of less than or equal to 0.40. **Exception:** Fenestration installed in buildings located in Fire Hazard Severity Zones or Wildland-Urban Interface (WUI) Fire Areas as designated by the local enforcement agency.

Subchapter 8 – Single-Family Residential Buildings

Performance and Prescriptive Compliance Approaches for Single-Family Residential Buildings



› Performance

› Section 150.1 Performance Approach

§150.1(b)1 “Performance Approach”

Revised: Proposed Design building to be no greater than the energy budget calculated for the Standard Design building using CEC-certified compliance software as specified by §10-109(c) “Compliance Software” and §10-116 “Third Party Alternative Calculation Method Compliance Software.”

Energy Budget. The energy budget is expressed in terms of Long-term System Cost (LSC) and source energy.

- ✦ **Long-term System Cost (LSC).** The LSC energy budget is determined by applying the Mandatory and Prescriptive Requirements of the Standard Design to the Proposed Design building and has two components, the **Efficiency LSC** and the **Total LSC**. The **Efficiency LSC** energy is the sum of the LSC energy for space-conditioning, water-heating, mechanical ventilation, and self-utilization credit(s). **Total LSC** energy is the sum of the Efficiency LSC energy and LSC energy from the PV system, battery energy storage systems (BESS), lighting, demand flexibility, and other plug loads.
- ✦ **Source Energy.** Source Energy reflects the long run marginal source energy of fossil fuels that are combusted as a result of building energy consumed either directly at the building site or to meet the electrical demand of the building.

Title 24, Part 6

Subchapter 8 – Single-Family Residential Buildings

Performance and Prescriptive Compliance Approaches for Single-Family Residential Buildings



› Prescriptive

› Section 150.1 Prescriptive Compliance Approaches for Single-Family Residential Buildings

§150.1(c)1A “Newly Constructed Buildings – Roof and Ceiling Insulation”

Revised: **Option C:** Revised to apply to ceiling insulation located between a ventilated attic and the conditioned space or within a cathedral ceiling assembly must comply with the space conditioning distribution systems of §150.1(c)9B “Duct Systems and Air Handlers of HVAC Systems in Conditioned Space.” Table 150.1-A “Component Package – Single-family Standard Building Design” has been revised to include **Option C** Roof deck insulation for cathedral ceilings requiring R-38 insulation in cathedral ceilings in all 16 CZs.

§150.1(c)1B “Newly Constructed Buildings – Wall Insulation”

Revised: Table 150.1-A “Component Package – Single-family Standard Building Design” has been revised to indicate that above grade mass walls now include “masonry” walls.

§150.1(c)1D “Newly Constructed Buildings – Slab Floors”

Revised: Table 150.1-A “Component Package – Single-family Standard Building Design” has been revised to indicate the slab perimeter floor requirement for CZ 16 is an “F” factor.

§150.1(c)3 “Newly Constructed Buildings – Fenestration”

Revised: Table 150.1-A “Component Package – Single-family Standard Building Design” was revised to include new lower U-factor of 0.27 in CZs 1–5, and 11–14, and 16, and for dwelling units in CZ 5 less than or equal to 500 ft² to comply with a maximum U-factor of 0.30. **Exception** to allow less than or equal to 16 ft² of skylight with a U-factor less than or equal to 0.40 and a solar heat gain coefficient (SHGC) of less than or equal to 0.30 in CZs 2, 4, and 6 through 15. Added clarification that in CZs 1, 3, 5, and 16 there is no SHGC requirement.

Title 24, Part 6

Subchapter 9 – Single-Family Residential Buildings

Additions and Alterations to Existing Residential Buildings



› Additions and Alterations

› Section 150.2 Energy Efficiency Standards for Additions And Alterations to Existing Single-Family Residential Buildings

§150.2(a)1A “Additions > 700 ft²”

Revised: New requirement for Alterations that add fenestration area in CZ 15 are allowed to meet a maximum SHGC value of 0.23.

§150.2(b)1A and 1B “Alterations – Added and Replacement Fenestration”

Revised: There have been changes to the exceptions:

- ✦ **Exception 1** to §150.2(b)1A was revised to remove the 75 ft² threshold to meet the total fenestration area and west-facing fenestration area requirements of §150.1(c)3B “Maximum Fenestration Area” and §150.1(c)3C “Maximum West-facing Fenestration Area.” A new exception was added to allow Alterations that increase fenestration area in CZ 15 to install fenestration with a maximum SHGC of 0.23.
- ✦ **Exception 2** to §150.2(b)1A was revised to allow fenestration Alterations to allow up to 16 ft² of added fenestration or skylights and not be required to meet the total fenestration area and west-facing fenestration area requirements of §150.1(c)3B “Maximum Fenestration Area” and §150.1(c)3C “Maximum West-facing Fenestration Area.”
- ✦ **Exception 1** to §150.2(b)1B was revised to require replacement of vertical fenestration less than or equal to 75 ft² with a U-factor less than or equal to 0.40 in CZs 1–16, and a SHGC value less than or equal to 0.35 in CZs 2, 4, and 6–14.
- ✦ **Exception 2** to §150.2(b)1B was revised to require replaced skylights must meet a U-factor less than or equal to 0.40.
- ✦ **Exception 3** to §150.2(b)1B was added for the replacement of vertical fenestration in CZ 15 to allow a SHGC less than or equal to 0.23.

§150.2(b)2 “Alterations – Performance Approach”





Revised: Table 150.2-G “Standard Design for an Altered Component” was revised in the following areas (see below) when using the ECC-Rater verification of existing conditions.

Table 150.2-G Standard Design for an Altered Component

Altered Component	Standard Design Without Third Party Verification of Existing Conditions Must Be Based On	Standard Design with Third Party Verification of Existing Conditions Must Be Based On
Fenestration	The requirements of §150.1(c)3A “New Construction – Fenestration”	The existing fenestration U-factor and SHGC values as verified by ECC-Rater
Window Film	The requirements of §150.1(c)3A “New Construction – Fenestration”	NO CHANGE: The existing fenestration in the Alteration must be based on Table 110.6-A “Default Fenestration Product U-factors” and Table 110.6-B “Default Solar Heat Gain Coefficient (SHGC)”

Photovoltaic, Battery Storage Systems, Solar and Battery Readiness: Single-family Occupancies

Table 3: Changes to the 2025 Energy Code, Photovoltaic, Battery Storage Systems, Solar and Battery Readiness

Building Application	 Mandatory		 Prescriptive Subchapter 8 (\$150.1)	 Performance Subchapter 8 (\$150.1)	 Additions and Alterations Subchapter 9 (\$150.2)	Reference Appendices
	All Occupancy Subchapters 1-2 (§§100.0-110.12)	Subchapter 7 (\$150.0)				
General	§100.0 Revised §100.1 Revised §100.2 Revised §§110.0-.1 No Change	N/A	§150.1(a) No Change	§150.1(b) Revised	N/A	JA2 Weather/Climate: No Change JA3 Energy Budget: Revised
Photovoltaic (PV) Systems	§110.10 No Change	N/A	§150.1(c)14 Revised	§150.1(b) Revised	N/A	JA11 PV Qualifications: No Change
Solar Readiness	§110.10 No Change	§150.0(r) No Change	N/A	N/A	N/A	N/A
Battery Energy Storage System (BESS) Readiness and Installation	§110.10 No Change	§150.0(s) Revised	N/A	§150.1(b) Revised	N/A	JA12 Battery Qualifications: Revised

Title 24, Part 1

Article 1 – Energy Building Regulations



› Mandatory

- › Section 10-115 Community Shared Solar Electric Generation System or Community Shared Battery Energy Storage System Compliance Option for On-Site Solar Electric Generation or Battery Energy Storage Requirements

§10-115(a)6 “Community-shared Solar Electric Generation System or Battery Energy Storage System Offset – Location”

Revised: The community shared solar electric generation system and/or community shared BESS shall be located on a distribution system of the load serving entity providing service to the participating buildings. The distribution system must have an electrical voltage.



› **Mandatory**

› **Section 100.1 Definitions and Rules of Construction**

Revised: **Battery Energy Storage System (BESS)** is a stationary equipment that receives electrical energy and then utilizes batteries to store that energy for later use to supply electrical energy when needed. The BESS consists of one or more modules, a power conditioning system, and balance of plant components.

NEW!: **BESS Ready Interconnection Equipment** is equipment, including but not limited to a Battery Energy Storage System (BESS) ready panelboard or switchboard, that can accommodate the connection of a distributed energy resource or a Battery Energy Storage System (BESS) capable of either automatic or manual isolation from the utility power source.

NEW!: **BESS Ready Panelboard/Switchboard** is a panelboard or switchboard that can accommodate either automatic or manual switching between a utility power source to a distributed energy resource or a Battery Energy Storage System (BESS), such as a split bus panelboard or a switchboard.

Revised: **Energy Budget** is the maximum energy consumption, that a proposed building, or portion of a building, can be designed to consume, calculated using Commission-approved compliance software as specified by Section 10-109 of the Energy Code and the Alternative Calculation Method Reference Manual. The Energy Budget for newly constructed buildings are expressed in terms of the Long-term System Cost (LSC) and Source Energy. The energy budget for additions and alterations is expressed in terms of LSC.

NEW!: **Executive Director** is the Executive Director of the Energy Commission.

NEW!: **Long-Term System Cost (LSC)** is the CEC-projected present value of costs to California's energy system over a period of 30 years. LSC does not represent a prediction of individual utility bills.

NEW!: **Power Conditioning System (PCS)** is a device, which may be either integrated into a Battery Energy Storage System (BESS) or standalone, that allows for the BESS to interact with other electrical infrastructure, such as the electrical network. The PCS may include an inverter like that used for a photovoltaic (PV) system.

Revised: **Source Energy** is defined as the long run hourly marginal source energy of fossil fuels that are combusted as a result of building energy consumption either directly at the building site or caused to be consumed to meet the electrical demand of the building considering the long-term effects of Commission-projected energy resource procurement. For a given hour, the value in that hour for each forecasted year is averaged to establish a lifetime average source energy.

Title 24, Part 6

Subchapter 1 – All Occupancies

General Provisions *(continued)*



› Mandatory

› Section 100.2 Calculation of Energy Budgets

Revised: When using the Performance Approach for compliance, the energy budget for all newly constructed multifamily buildings is now expressed in terms of Long-term System Cost (LSC) and Source Energy. The energy budgets for Additions and Alterations are expressed in terms of LSC.

LSC is calculated by multiplying the building's annual hourly site energy use for each fuel type by the CEC-published LSC hourly factors, which vary for each hour of the year based on the energy type, Climate Zone, and building type. All depletable energy sources other than electricity and natural gas must use the LSC factors for propane. A summary of LSC hourly factors is found in the Reference Joint Appendix JA3.

Source Energy is calculated by multiplying the annual hourly site energy use by Btu factors for fossil fuel used directly or indirectly at the building site, or to meet the electrical demand of the building.

Title 24, Part 6

Subchapter 7 – Single-Family Residential Buildings

Mandatory Features and Devices



› Mandatory

› Section 150.0 – Mandatory Features and Devices

§150.0(s) “Battery Energy Storage Systems (BESS) Ready”

Revised: Revised to apply to all single-family residences comprised of one and two units with an electrical service greater than 125 amps. **New exception** added for buildings that have a BESS installed.



Title 24, Part 6

Subchapter 8 – Single-Family Residential Buildings

Performance and Prescriptive Compliance Approaches for Single-Family Residential Buildings



› Performance

› Section 150.1 Performance Approach

§150.1(b)1 “Performance Approach”

Revised: Proposed Design building to be no greater than the energy budget calculated for the Standard Design building using CEC-certified compliance software as specified by §10-109(c) “Compliance Software” and §10-116 “Third Party Alternative Calculation Method Compliance Software.”

Energy Budget. The energy budget is expressed in terms of LSC and source energy.

- ✦ **LSC.** The LSC energy budget is determined by applying the Mandatory and Prescriptive Requirements of the Standard Design to the Proposed Design building and has two components, the **Efficiency LSC** and the **Total LSC**. The **Efficiency LSC** energy is the sum of the LSC energy for space-conditioning, water-heating, mechanical ventilation, and self-utilization credit(s). **Total LSC** energy is the sum of the Efficiency LSC energy and LSC energy from the PV system, BESS, lighting, demand flexibility, and other plug loads.
- ✦ **Source Energy.** Source Energy reflects the long run marginal source energy of fossil fuels that are combusted as a result of building energy consumed either directly at the building site or to meet the electrical demand of the building.



› Prescriptive





› Section 150.1 Prescriptive Compliance Approaches for Single-Family Residential Buildings

§150.1(c)14 “Photovoltaic System Requirements”

Revised: When considering the Solar Access Roof Area (SARA) method, low-sloped roofs (less than 2:12) are multiplied by 14 watts. Steep-sloped roofs (greater than or equal to 2:12) are now included in SARA in which the area is multiplied by 18 watts. To determine minimum required PV kW requirements, the smaller of either SARA or Equation 150.1-C “Annual Photovoltaic Electrical Output” (or the Performance Approach, if choosing to use the alternative compliance method) is used.

Electrical Systems: Lighting and Electric Readiness

Table 4: Changes to the 2025 Energy Code, Lighting and Electric Readiness

Building Application	 Mandatory		 Prescriptive Subchapter 8 (\$150.1)	 Performance Subchapter 8 (\$150.1)	 Additions and Alterations Subchapter 9 (\$150.2)	Reference Appendices
	All Occupancy Subchapters 1-2 (§§100.0-110.12)	Subchapter 7 (\$150.0)				
General	§100.0 Revised §100.1 Revised §100.2 Revised §§110.0-.1 No Change	N/A	N/A	N/A	N/A	JA2 Weather/Climate: No Change JA3 Energy Budget: Revised
Indoor and Outdoor Lighting	§110.9 No Change	§150.0(k) Revised	N/A	N/A	§150.2(b)1K No Change	JA8 Residential High Efficacy Light: Revised JA10 Residential JA8 Flicker: Revised
Electric Readiness	N/A	§150.0(t) Revised §150.0(u) Revised §150.0(v) Revised	N/A	N/A	§150.0(n) Additional Gas Water Heater for Addition Revised	N/A

Title 24, Part 6

Subchapter 7 – Single-Family Residential Buildings

Mandatory Features and Devices



› Mandatory

› Section 150.0 – Mandatory Features and Devices

§150.0(k)1 “Indoor and Outdoor Lighting”

Revised: All changes in support of clean-up with no substantive changes.

§150.0(n)1Ai “Water-heating System – Heat Pump Ready Dedicated Electrical Requirements”

Revised: Removed the requirement for specified branch circuit to be 10 AWG copper, and added a minimum branch circuit rating of 30 amps.

For More Information



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Create an account on the EnergyCodeAce.com website and select an industry role for your profile in order to receive our newsletter and messages about all our offerings!



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Ace*Tools™

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Explore this suite of interactive tools to understand the compliance process, required forms, installation techniques, and efficiency regulations in California.

- ✦ [Reference Ace](#): Navigate Title 24, Part 6 using an index, keyword search, and hyperlinked text.
- ✦ [Q&Ace](#): Search our online knowledge base or submit your question to Energy Code Ace experts.
- ✦ [Product Finder](#): Find Title 24, Part 6 compliant products.

Ace*Training™

energycodeace.com/training

On-demand, live in-person, and online training alternatives are tailored to a variety of industry professionals and address key measures.

Of special interest:

- ✦ [2025 Title 24, Part 6 Essentials – Residential Standards: What’s New](#)

Ace*Resources™

energycodeace.com/resources

Downloadable materials provide practical and concise guidance on how and when to comply with Title 24, Part 6 and Title 20.

Of special interest:

- ✦ [Fact Sheets for Buildings](#)
 - » Coming soon – search for “single-family buildings” on our website for new 2025 resources
- ✦ [Fact Sheets for Appliances](#)
 - » [MAEDbS 101](#)

California Energy Commission (CEC)
energy.ca.gov

Learn more about the CEC and its programs.

- ✦ [2025 Building Energy Efficiency Standards:](#) Explore the main CEC web portal for the 2025 Energy Code, including information, documents, and historical information.
- ✦ [2025 California Energy Code Fact Sheet:](#) Download this brief summary of the Title 24, Part 6 purpose, current changes, and impact.
- ✦ [California Appliance Efficiency Standards Site:](#) Visit this site for information on California's Title 20 Appliance Efficiency Regulations.
- ✦ **Energy Code Hotline**
 - » Call: 1-800-772-3300 (Free)
 - » [Submission Form](#)
- ✦ [Energy Code Support Center:](#) Use these online resources developed for building and enforcement communities to learn more about Title 24, Part 6.
- ✦ [Modernized Appliance Efficiency Database System \(MAEDbS\):](#) Search this database to find products that comply with Title 24, Part 6 and Title 20.

Additional Resources

Title 24 Stakeholders
title24stakeholders.com

The Codes and Standards Enhancement (CASE) initiative presents recommendations to support the CEC's efforts to update Title 24, Part 6) to include new requirements or to upgrade existing requirements for various technologies. Three California investor-owned utilities sponsor this effort. The Statewide CASE Team encourages the open exchange of comments and concerns from all stakeholders engaged in the Title 24, Part 6 code change process. Contact them and they will put you in touch with the appropriate CASE Team members.

Reach Codes
localenergycodes.com

Collaborating with cities, counties, and stakeholders to drive reach code development and adoption for long-term climate and energy efficiency benefits. View a list of adopted ordinances at the link provided.

CALGreen
calgreeninfo.com

CALGreen is a mandatory green building code with additional voluntary provisions. CALGreen is Part 11 of the California Building Standards Code, Title 24 of the California Code of Regulations. Codes are updated and adopted on an 18-month cycle, triennial and intervening. The current code is effective through December 31, 2025.



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

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