

BLUEPRINT

CALIFORNIA ENERGY COMMISSION
EFFICIENCY DIVISION

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The CEC welcomes feedback on Blueprint. Please contact the editor at Title24@energy.ca.gov

Covered Process or Process Space

A covered process is different than a process space. Both need to be understood to meet the Energy Code requirements.

Covered processes are regulated under the 2022 Energy Code **§ 120.6**, **§ 140.9**, and **§ 141.1**.

These processes include specific efficiency requirements for computer rooms, data centers, elevators, escalators and moving walkways, laboratories, enclosed parking garages, commercial kitchens, refrigerated warehouses, commercial refrigeration, compressed air systems, process boilers, steam traps, and controlled environment horticultural spaces.

Process space is a space that is controlled to maintain temperatures below 55 degrees Fahrenheit or above 90 degrees Fahrenheit. Spaces that are maintained within the temperature range of 55 degrees Fahrenheit to 90 degrees Fahrenheit are considered conditioned spaces.

Directly and indirectly conditioned spaces with a covered process must meet all applicable Energy Code requirements including:

- Covered process
- Envelope
- Lighting
- Mechanical
- Power distribution
- Solar PV and battery storage
- Water heating

If the equipment serves both conditioned space and process space, the equipment must meet the requirements in **§ 110.2**, unless the equipment meets specific exceptions in the Energy Code or has specific efficiency requirements stated in **§ 120.6**, **§ 140.9**, or **§ 141.1**. The mandatory requirements for space conditioning equipment in **§ 110.2** do not apply to equipment used solely for process space.

Buildings that use only an evaporative cooler (swamp cooler) for space conditioning must meet all the applicable requirements for unconditioned nonresidential buildings, which primarily consist

of lighting, power distribution, and applicable covered process requirements. Cooling of a space by direct or indirect evaporation of water alone is not considered mechanical cooling.

For more information on covered processes, see the **Nonresidential and Multifamily Compliance Manual Chapter 10**.

Compliance Software

Approved updated versions of the 2022 Energy Code compliance software are available on the **2022 Energy Code compliance software webpage**.

- For single-family buildings
 - Right-Energy Title 24 2022.2.0
- For nonresidential and multifamily buildings
 - IES VE Title 24 2022.1.0

All permit applications submitted on or after January 1, 2023, must comply using software and compliance forms approved for the 2022 Energy Code. Please visit the **compliance software webpage** for the latest versions of the software and software expiration dates.

New Resources on the ORC

New presentations for the 2022 Energy Code are available on the **Online Resource Center overview webpage**.

- 2022 Single-Family Significant Changes
- 2022 Multifamily Significant Changes
- 2022 Nonresidential Significant Changes

2022 Compliance Manual Errata

The first errata for the **2022 Single-Family Residential Compliance Manual** and the **2022 Nonresidential and Multifamily Compliance Manual** have been published.

These errata address revisions to the compliance manuals, including minor changes to correct grammatical errors, clarify meaning, and clean up confusing language.

View the errata on the **2022 Energy Code webpage**.

Q&A

Single-Family Energy Storage System Ready

Do the energy storage system (ESS) ready requirements in § 150.0(s) apply to duplexes?

Yes. The 2022 Energy Code ESS ready requirements in **§ 150.0(s)** apply to all single-family residences that include one or two dwelling units.

Will both duplex units need to meet the Energy Code requirements separately?

Yes. Duplexes are considered two single-family homes. Each duplex unit would have a separate panel with 225A busbar rating to meet the ESS ready mandatory requirements in **§ 150.0(s)**.

Do the ESS ready requirements in § 150.0(s) apply to townhouses?

No. Per the definition in **§ 100.1** a townhouse is a single-family dwelling unit constructed in a group of three or more attached units. Townhouses do not need to meet the ESS ready requirements in **§ 150.0(s)**.

Single-Family Solar PV

Does the prescriptive exception 2 to § 150.1(c)14 for solar PV apply when using performance modeling software?

Yes. The performance modeling software allows exception 2 to **§ 150.1(c)14**. Per the 2022 Single-Family Residential ACM Reference Manual, no PV system is required when

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Energy Code
(Title 24, Part 6) questions.

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the minimum PV system size is less than 1.8 kWdc as specified by **§ 150.1(c)14**, which uses **Equation 150.1-C** to determine the required minimum PV system size.

Capture Efficiency Ratings

Can capture efficiency ratings be used instead of the airflow rate to comply with ventilation requirements per the single-family Table 150.0-G and the multifamily Table 160.2-G?

Not at this time. The verification testing for the capture efficiency ratings per ASTM E3087 is still underway. The 2022 Energy Code includes the capture efficiency ratings since the ASTM values are expected to be available before the end of this code cycle.

For additional help with the Energy Code, see Energy Code Ace's **online offerings** of trainings, tools, and resources.



Nonresidential Economizers

Is there a prescriptive trade-off for economizers per § 140.4(e)1 of the 2022 Energy Code?

Yes. Exception 4 to **§ 140.4(e)1** allows for prescriptive trade-off based on **Table 140.4-F**. The minimum efficiencies in **§ 110.2** must be met. If the unit is rated with a part-load metric, only the minimum cooling efficiency of the unit is used to meet the exception.

Nonresidential HVAC Alterations

Is an economizer required for replacement of HVAC single packaged units per § 141.0(b)2C of the 2022 Energy Code?

Yes. Exception 4 to **§ 141.0(b)2C** requires single packaged air-cooled commercial unitary air conditioners or heat pumps with cooling capacity less than 54,000 Btu per hour to meet the economizer requirements in **§ 140.4(e)**. This exception does not require economizers for replacements of VRF, split systems, or systems that are not single packaged units.

FOR MORE INFORMATION

Online Resource Center (ORC):
www.energy.ca.gov/orc

Home Energy Rating System (HERS):
www.energy.ca.gov/HERS

Acceptance Test Technician Certification Provider Program (ATTCP): www.energy.ca.gov/ATTCP

2022 Approved Compliance Software:
<https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1>

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