

What is The California Energy Code?

California's Building Energy Efficiency Standards (Energy Code) are part of the California Building Code, included in the California Code of Regulations, Title 24, Part 6. The Energy Code regulates energy usage in residential and nonresidential buildings in order to protect consumers by reducing the wasteful, uneconomic, inefficient or unnecessary consumption of energy. The State (California Energy Commission) updates the Energy Code every three years. Specific Energy Codes are referred to by the year they are adopted. On January 1, 2020, the 2019 Energy Code became effective. Its scope broadened to include healthcare facilities, but with a number of exceptions for licensed healthcare facilities. Non-licensed institutional buildings must comply with all applicable sections of the Energy Code and are not eligible for the healthcare facility exemptions.

Relevant Code Sections

2019 California Building Energy Efficiency Standards, Title 24, Part 6:

- [Subchapter 1 \(§§100.0 – 100.2\)](#) – General Provisions – All Occupancies
- [Subchapter 2 \(§§110.0-110.9,110.11-110.12\)](#) – All Occupancies – Mandatory Requirements for the Manufacture, Construction and Installation of Systems, Equipment and Building Components
- [Subchapter 3 \(§§120.0, 120.2,120.3 120.6, 120.7, 120.9\)](#) – Nonresidential, High-Rise Residential, Hotel/Motel Occupancies, and Covered Processes – Mandatory Requirements
- [Subchapter 4 \(§§130.0-130.2, 130.5\)](#) – Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Mandatory Requirements for Lighting Systems and Equipment, and Electrical Power Distribution Systems
- [Subchapter 5 \(§§140.0-140.8\)](#) – Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency
- [Subchapter 6 \(§§141.0 - 141.1\)](#) – Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Additions, Alterations, and Repairs

Relevant Compliance Forms

- [NRCC](#) – Nonresidential Certificates of Compliance
- [NRCI](#) – Nonresidential Certificates of Installation
- [NRCA](#) – Nonresidential Certificates of Acceptance



What Does Title 24, Part 6 Mean for Healthcare Facilities?

Licensed Healthcare Facility Exemptions

The Energy Code contains many exceptions for mechanical and envelope requirements in licensed healthcare facilities. To find a detailed list of these exceptions check out the [Energy Code Ace fact sheet](#), “What’s Changed for 2019 – Nonresidential, High-Rise Multifamily, Hotel & Motel.

What is Covered Process?

The Energy Code uses the term “covered process” to indicate requirements for process systems covered (regulated) by the Energy Code that are not included in energy modeling for the project, such as escalators and compressed air systems. Covered Processes are generally building systems that are not related to the space conditioning, lighting, service water heating or ventilation of a building as it relates to occupant comfort. Regulated covered process systems that may apply to healthcare facilities include ventilation systems for enclosed parking garages and large boilers serving steam sterilization systems. Large medical equipment and medical gas systems are examples of process loads that the Energy Code does not regulate.

The compliance process for the Energy Code follows a similar structure to those for other building codes. Compliance for the building design is verified using the plan set and specifications by the OSHPD Plans Examiner. Inspectors of Record (IOR) are responsible for on-site field verification during construction.

Licensed healthcare facilities (per health and safety code (HSC) Section 1204 or Section 1250, defined as “Healthcare Facilities” in the Energy Code) submitting plans for a construction permit after January 1, 2020 must comply with applicable requirements in the 2019 Energy Code, in order to obtain a final building permit and receive a certificate of occupancy.

Construction Types

The Energy Code recognizes three types of construction: new construction, additions and alterations. All new licensed healthcare facilities and additions to them must comply with the Energy Code. An addition is defined as any change that increases both the floor area and volume of either conditioned or unconditioned space, or increases the area of regulated outdoor illumination. Alterations to licensed healthcare facilities are exempt from Energy Code requirements.

Occupancy Types

Energy Code requirements are organized by occupancy types (low-rise residential, high-rise residential, nonresidential and hotel/motel). Healthcare facilities are classified as nonresidential. Requirements for specific building components and systems (e.g., envelope, HVAC, indoor and outdoor lighting, and process systems) are supported by specific code sections.

Mandatory Measures and Compliance Approaches

Mandatory measures establish the minimum level of energy efficiency and/or performance of a building. All regulated nonresidential buildings, including licensed healthcare facilities, must be designed and built to comply with all applicable Mandatory measures of the Energy Code. In addition to meeting the Mandatory requirements, buildings must also comply with Prescriptive requirements of the Energy Code, or use the Performance approach to gain flexibility beyond Prescriptive measures for specific building features.



Prescriptive Approach

The Prescriptive Approach is considered the most direct path to compliance. It is a set of prescribed performance levels for various building components, where each component must meet specific requirements. Prescriptive measures for new construction projects may differ from those for additions.



Performance Approach

The Performance Approach builds on the Prescriptive Approach by allowing “trade-offs” between building systems. Mandatory measures *always* apply and set the minimum allowable efficiency standards of a building feature. The Prescriptive compliance approach “sets the bar” that will be used as the basis for comparison when using the Performance approach. If your design cannot meet the Prescriptive approach requirements, you may use the Performance method to allow design flexibility through trade-offs with Prescriptive measures down to the Mandatory minimums.

This compliance approach requires using energy analysis software that has been approved by the Energy Commission. In order to demonstrate compliance with the Performance method, every Time Dependent Valuation (TDV) “trade-off penalty” must be offset by a building feature that has equal or greater TDV energy savings “trade-off credit.” Currently, HVAC systems (efficiency and/or distribution) for healthcare facilities will not provide “trade-off credit” for design options that have TDV energy savings over the Prescriptive requirement. Therefore, the Prescriptive pathway may be more appropriate for mechanical (HVAC) measures.

Projects teams have the ability to use both the Prescriptive and Performance approaches to demonstrate compliance for a single project. Design teams can choose to split the compliance approaches up between each building system category. For example, the project team may use the Performance approach for lighting and envelope, and use the Prescriptive approach for the rest of the applicable building systems. This allows the project team additional flexibility with design options while still meeting all applicable Energy Code requirements.

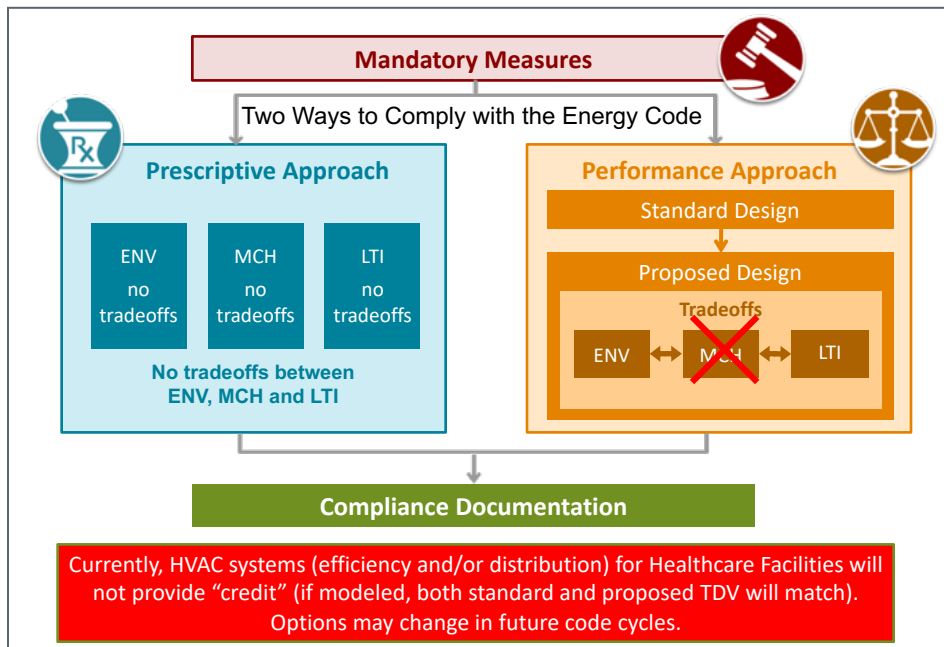


Figure 1: Compliance Approaches







Time Dependent Valuation (TDV) Energy

TDV energy is the metric used in the Energy Code to quantify the value of energy and energy savings when using the Performance approach in nonresidential buildings, including licensed healthcare facilities. TDV takes into account time-of use as well as production, distribution, climate zone and building site energy use.

Need Help?

Do you need help with Energy Code compliance? There is an industry of energy consultants who specialize in this to help you through the design and compliance phases of your project. Find a [Certified Energy Analyst](#).

Table 1, adapted from 2019 Energy Code Table 100.0-A, lists Energy Code sections applicable to licensed healthcare facilities.

Building Occupancies	Building Application	 Mandatory All Occupancy Subchapters 1-2 (§§100.0-110.11) Nonresidential Occupancy Subchapter 3 (§§120.0-120.9)	 Prescriptive Subchapter 5 (§§140.0-140.9)	 Performance Subchapter 5 (§§140.0-140.1)	 Additions Subchapter 6 (§§141.0-141.1)
General Provisions for All Buildings		§§100.0, 100.1, 100.2			
Healthcare Facilities	General	§120.0	§§140.0, 140.2	§§140.0, 140.1	§141.0
	Envelope (conditioned)	§§110.6, 110.7, 110.8, 120.7	§140.3		
	HVAC (conditioned)	§§110.2, 110.5, 120.2*, 120.3	§140.4*		
	Water Heating	§§110.3*, 120.3, 120.9	§140.5		
	Indoor Lighting	§§110.9, 130.0, 130.1*	§§140.3(c), 140.6*	NA	
	Outdoor Lighting	§§110.9, 130.0, 130.2	§140.7		
	Electrical Power Distribution	§§110.11, 130.5*	NA		
	Pool and Spa Systems	§§110.4, 110.5	NA	§140.1	§§120.6, 140.9, 141.1
Covered Processes	Envelope, Ventilation, Process Loads	§§110.2, 120.6* California Mechanical Code (CMC) Chapter 4	NA		
Signs	Indoor and Outdoor	§§110.9, 130.0	§140.8	NA	§141.0

* Code section contains exemptions for licensed Healthcare Facilities, however only portions of the subchapter are exempt. Specific exemptions are listed in each code section. Licensed Healthcare Facilities are exempt from Energy Code sections not listed above.

Table 1: 2019 Energy Code Sections Applicable to Healthcare Facilities



How to Document Compliance with Title 24, Part 6

When taking the Prescriptive approach to compliance, separate reports must be completed and submitted for building features subject to the Energy Code based on the scope of your project. Outlined below are the forms that need to be completed and submitted for healthcare facilities

Certificates of Compliance

Certificates of compliance (NRCC) are submitted with the design documents at time of permit application to the OSHPD Plans Examiner to demonstrate that the proposed building design meets Energy Code requirements. For new licensed healthcare projects, you should always expect to submit the NRCC forms for sign lighting (LTS), outdoor lighting (LTO) and electrical power distribution (ELC) (★). These forms must be submitted to OSHPD if the healthcare facility includes the applicable scope. But only those forms that apply to building components in your scope of work need to be submitted.

Depending on the project scope and compliance path used for indoor lighting, envelope, process, mechanical systems or plumbing projects may be required to submit LTI, ENV, PRC (★), MCH or PLB (★) forms if complying prescriptively, or the NRCC-PRF if using the Performance path (★). The NRCC forms will only request project details for applicable requirements for licensed healthcare facilities. Because licensed healthcare facilities are completely exempt (✘) from all solar ready and commissioning requirements of the Energy Code, NRCC-SRA and NRCC-CXR forms will never be required. OSHPD Testing, Inspection and Observation (TIO) Program commissioning requirements must be met.

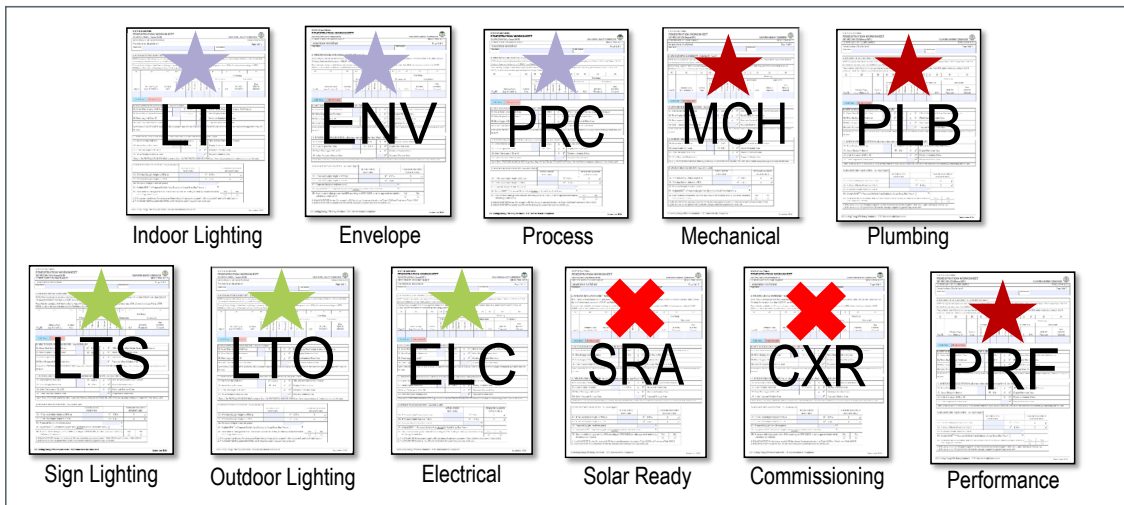


Figure 2: 2019 NRCC Applicable to Healthcare Facilities

Certificates of Installation

Certificates of Installation (NRCI) are completed during construction by the installer and submitted to the IOR to certify that energy features listed on the applicable NRCC form have been installed as indicated on the plans. The required NRCI forms are identified by the NRCC forms.

Certificates of Acceptance

Certificates of Acceptance (NRCA) are completed during construction by the installer or acceptance testing technician (ATT) and submitted to the IOR to certify that the building's energy features and/or systems are functioning. The applicable NRCA forms are identified in the NRCC forms, but only the NRCA forms for envelope have been adopted by OSHPD (NRCA-ENV). No other NRCA forms will be required since OSHPD TIO forms take precedence. OSHPD field verification methods take precedence over those in the respective Nonresidential Reference Appendix to the Energy Code.

For More Information

Primary Sources

- Energy Code Subchapter 1: (Sections 100.0 – 100.2) – General Provisions – All Occupancies
energycodeace.com/site/custom/public/reference-ace-2019/Documents/section100scope1.htm
- Energy Code Subchapter 2: (Sections 110.0-110.9,110.11-110.12) – All Occupancies – Mandatory Requirements for the Manufacture, Construction and Installation of Systems, Equipment and Building Components
energycodeace.com/site/custom/public/reference-ace-2019/Documents/subchapter2alloccupanciesmandatoryrequirementsforthemanufacturec.htm
- Energy Code Subchapter 3: (Sections 120.0, 120.2,120.3 120.6, 120.7, 120.9) – Nonresidential, High-Rise Residential, Hotel/Motel
energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1200general.htm
- Energy Code Subchapter 4: (Sections 130.0-130.2, 130.5) – Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Mandatory Requirements for Lighting Systems and Equipment, and Electrical Power Distribution Systems
energycodeace.com/site/custom/public/reference-ace-2019/Documents/subchapter4nonresidentialhighrisesidentialandhotelmoteloccupan.htm
- Energy Code Subchapter 5: (Sections 140.0-140.8) – Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency
energycodeace.com/site/custom/public/reference-ace-2019/Documents/subchapter5nonresidentialhighrisesidentialandhotelmoteloccupan.htm
- Energy Code Subchapter 6: (Sections 141.0 – 141.1) – Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Additions, Alterations, and Repairs
energycodeace.com/site/custom/public/reference-ace-2019/Documents/subchapter6nonresidentialhighrisesidentialandhotelmoteloccupan.htm

Compliance Forms

- Nonresidential Compliance Forms
energycodeace.com/NonresidentialForms/2019

California Energy Commission Information & Services

- Energy Code Hotline: 1-800-772-3300 (Free) or Title24@energy.ca.gov
- Online Resource Center:
www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/online-resource-center
 - The Energy Commission’s main web portal for the Energy Code, including information, documents and historical information

Additional Resources

- California Health and Safety Code
leginfo.ca.gov/faces/codesTOCSelected.xhtml?tocCode=HSC
 - The California Health and Safety Code is the section of the California Codes covering the subject areas of health and safety
- OSHPD
oshpd.ca.gov/
 - California’s Office of Statewide Health Planning and Development
- Energy Code Ace
energycodeace.com
 - An online “one-stop-shop” providing free resources and training to help appliance and building industry professionals decode and comply with Title 24, Part 6 and Title 20. The site is administered by California’s investor-owned utilities.
Of special interest:
 - Fact Sheets:
energycodeace.com/content/resources-fact-sheets
 - What’s Changed for 2019 – Nonresidential, High-Rise Multifamily, Hotel & Motel
 - What’s New in 2019 Nonresidential Energy Code
 - Training:
energycodeace.com/training
 - Decoding 2019 Title 24, Part 6: Let’s Talk Healthcare Facilities
 - Decoding What’s New: Let’s Talk 2019 Title 24, Part 6 – Nonresidential
 - 2019 Title 24, Part 6: Where We’re Headed with the Nonresidential Standards
 - Reference Ace™:
energycodeace.com/content/tools-ace/tool=reference-ace
 - Easily navigate Title 24, Part 6 documents using search and hyperlinks

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