

# BLUEPRINT

CALIFORNIA ENERGY COMMISSION  
EFFICIENCY DIVISION

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For additional help with the 2019 Energy Code see Energy Code Ace's **online offerings** of trainings, tools, and resources.



## Nonresidential Acceptance Testing

The mandatory requirement that any person performing a mechanical systems acceptance test in a nonresidential building must be certified as an acceptance test technician (ATT) took effect on April 14, 2021. In order to allow a reasonable time for training and implementation of additional ATTs, the California Energy Commission (CEC) expects authorities having jurisdiction to enforce the mechanical systems ATT requirements for all nonresidential permit applications submitted on or after October 1, 2021.

### What is acceptance testing?

Acceptance testing for nonresidential buildings was adopted in 2005 as part of the Building Energy Efficiency Standards (Energy Code) **Section 10-103.2**. Lighting controls acceptance testing by an ATT became mandatory on July 1, 2014.

Acceptance testing generally includes three phases: documentation inspection,

construction inspection, and functional testing. Acceptance testing confirms that contractors install equipment, controls, and systems that operate as required by the Energy Code. Acceptance testing verifies the installed energy efficient equipment is performing as expected, achieving lasting cost savings.

### What is an ATT?

An ATT is an installation technician that is trained, certified, and overseen by an acceptance test technician certification provider (ATTCP) to perform nonresidential acceptance testing for lighting controls or mechanical systems. ATTs conduct required tests, submit test results and certificates to enforcement agencies, and are employed by certified acceptance test employers. These employers are trained and certified by an ATTCP.

### What is the role of the ATTCP?

ATTCPs are professional organizations approved by the CEC to provide a training curriculum for technicians, employers, certification procedures,

complaint resolution (including disciplinary procedures), quality assurance, and accountability measures. ATTCPs monitor acceptance test employers and ATTs who perform acceptance testing.

### Certificates of acceptance

Nonresidential certificates of acceptance (NRCA) provide enforcement agencies the data necessary to verify compliance. The NRCAs have the ATTCPs logo, representing accountability for the work of the certified ATTs. The enforcement agency should not accept NRCAs that do not have an ATTCP logo. The CEC provides sample NRCAs, without ATTCP logos, for reference. ATTs are required to use the ATTCP database system to record testing results and generate NRCAs.

The ATTCPs use the database system to track the completed work of ATTs and acceptance test employers for quality assurance.

Enforcement agencies can rely on the compliance documentation with an ATTCP logo and be assured that the quality assurance checks on all certified technicians are being performed.

### Outreach and education

CEC staff is available to provide training on the ATTCP program for lighting controls and mechanical systems. Topics addressed include why acceptance testing is required, what is the role of the ATTCP, when ATT certification became mandatory, and how contractors and inspectors can use the ATTCP program to their best advantage. The intent of this course is to provide a basic understanding of the responsibilities and benefits to the builder, contractor, ATT, and the building inspector.

Additional information is available on the [ATTCP webpage](#).

### Approved ATTCPs for lighting controls

- **California Advanced Lighting Controls Training Program (CALCTP)**
- **National Lighting Contractors Association of America (NLCAA)**

### Approved ATTCPs for mechanical systems

- **California State Pipe Trades Council (CSPTC)**
- **National Energy Management Institute Committee (NEMIC)** also referred to as the Testing, Adjusting, and Balancing Bureau (TABB)
- **National Environmental Balancing Bureau (NEBB)**
- **Refrigeration Service Engineers Society (RSES)**

### New Resources on ORC

The Online Resource Center (ORC) has new 2019 Energy Code resources. The ATTCP Inspector's Field Sheet, training presentation, and counter card (Figure 1) are available on the [ORC ATTCP webpage](#).

Presentations for the 2019 Energy Code are available on these ORC web pages

- **Accessory Dwelling Units**
- **Commissioning**
- **Covered Processes Overview**
- **Residential Envelope**
- **Nonresidential Envelope**
- **Residential Water Heating**
- **Nonresidential Water Heating**
- **Solar Ready**

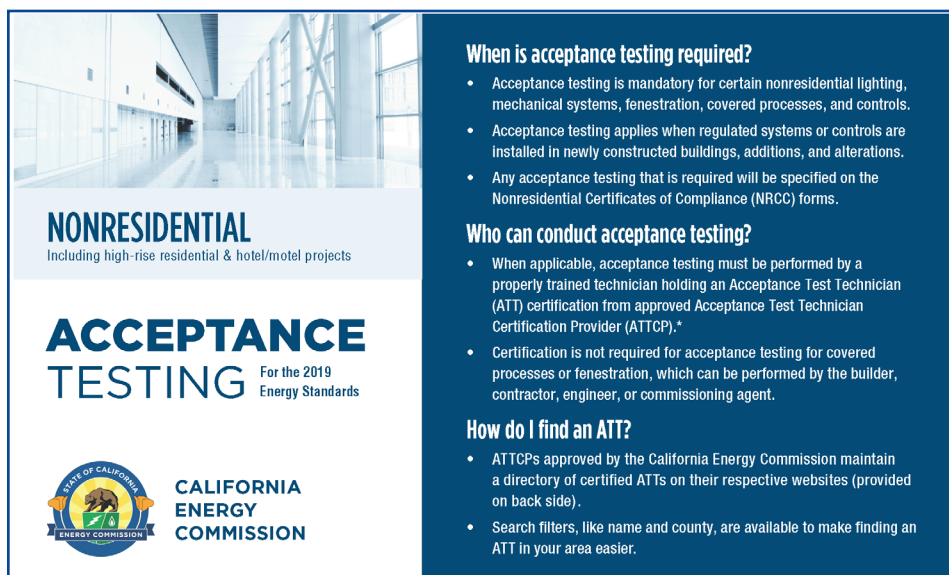


Figure 1: ATTCP Counter Card

## Repeal of Title 20 Self-Contained Lighting Controls

Effective March 16, 2021, amendments to Title 20 self-contained lighting controls and other minor amendments under **Docket 20-AAER-01** were approved with an immediate effective date.

This rulemaking includes the removal of the appliance type called “self-contained lighting controls” from Title 20, which includes the removal of definitions; efficiency standards; and testing, marking, and certification requirements related to this appliance. Self-contained lighting controls are no longer required to comply with Title 20 to be sold or offered for sale in California.

Self-contained lighting controls are no longer required to be certified to the Modernized Appliance Efficiency Database System (MAEDbS) and future certifications of this appliance type will not be possible. All self-contained lighting controls listed in MAEDbS were recently archived. Affected manufacturers

were notified separately though a MAEDbS communication.

Other non-substantive changes include removal of the minimum light output requirement for LED portable luminaires, updates to data submittal requirements for certain appliances, updates to reflect current federal law, and other miscellaneous changes to improve the readability of Title 20.

Please visit the **Title 20 Appliance Efficiency Regulations webpage** for more information.

## 2019 Energy Code Software Approved

The CEC approved Integrated Environmental Solutions (IES) Virtual Environment Title 24 2019 Version 1.0 as an alternative compliance software program to demonstrate compliance for nonresidential buildings under the 2019 Energy Code.

All approved software versions, with corresponding approval and expiration dates, are listed on the **2019 compliance software webpage**. Check back often for approved version updates.

## Q&A

### Nonresidential Indoor Lighting Alterations

#### What is a one-for-one luminaire alteration?

A one-for-one luminaire alteration is either replacement of whole luminaires one-for-one, in which the only electrical modifications involves disconnecting the existing luminaire and reconnecting the replacement luminaire, or when components of a luminaire are modified without replacing the entire luminaire. Adding luminaires and relocating existing luminaires are not one-for-one alterations.

#### If luminaires are permanently removed as part of a greater one-for-one alteration, does the project still qualify as a one-for-one alteration?

Yes. Permanently removing existing luminaires does not disqualify this alteration from being considered one-for-one.


#### If luminaires are permanently removed as part of a greater one-for-one alteration, does the wattage of the removed luminaires count toward the 40 percent reduction in lighting power?

Yes. This wattage does count toward the 40 percent reduction under **Section 141.0(b)2liii** of the 2019 Energy Code.

## ENERGY STANDARDS HOTLINE

Available to help with  
Energy Code  
(Title 24, Part 6) questions.

 EMAIL  
[title24@energy.ca.gov](mailto:title24@energy.ca.gov)

 CALL  
800-772-3300 | 916-654-5106  
Toll free in CA | Outside CA

HOURS 8 a.m.–12 p.m. and 1 p.m.–4:30 p.m.



### Does permanently removing existing luminaires trigger indoor lighting alteration requirements?

No. Permanent removal of existing luminaires does not trigger indoor lighting alteration requirements. If other alterations are made to the lighting system in conjunction with permanent removal of luminaires, such as relocating 10 percent of existing luminaires, this may trigger alteration requirements.

### If lamps and ballasts are replaced, or lamps and drivers are replaced in a luminaire, is this an alteration?

Yes. Replacing lamps and ballasts, or lamps and drivers in a luminaire, is an alteration. These alterations can qualify as one-for-one alterations under **Section 141.0(b)2liii** of the 2019 Energy Code. Replacements of lamps alone, ballasts alone, or drivers alone is not considered an alteration per **Exception 5 to Section 141.0(b)2l**.

### PV for Accessory Dwelling Units (ADU)

#### Can an existing photovoltaic (PV) system be used to meet the PV requirement for a newly constructed detached ADU?

No. The ADU must have a newly installed PV system to meet the requirements.

#### Can new PV modules be added to the existing PV system to meet the PV requirement for a newly constructed detached ADU?

Yes. New PV modules may be added to an existing system to meet the 2019 Energy Code requirements. The new PV modules must be part of the ADU's permit application, sized per the Energy Code, and comply with other parts of the building code as applicable.

For more information on PV requirements for ADUs, see **Blueprint 129**.

### FOR MORE INFORMATION

**Online Resource Center (ORC):**  
[www.energy.ca.gov/orc](http://www.energy.ca.gov/orc)

**Home Energy Rating System (HERS):**  
[www.energy.ca.gov/HERS](http://www.energy.ca.gov/HERS)

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

**2019 Approved Compliance Software:**  
<https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency-2>

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The CEC welcomes feedback on Blueprint.  
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