





California Energy Commission November 12, 2025 Business Meeting Backup Materials for REFRIGERATION SERVICE ENGINEERS SOCIETY (RSES) Approval of Provider Update Report

The following backup materials for the above-referenced agenda item are available as described below:

- 1. Proposed Order
- 2. Executive Director Recommendation
 - Exhibit A: Staff Evaluation and Condition of Approval COA-2025-01
- 3. CEQA Memorandum

STATE OF CALIFORNIA

STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

IN THE MATTER OF:

Refrigeration Service Engineers Society Proposed Acceptance Test Technician Certification Provider 2025 Update Report for the 2025 Building Energy Efficiency Standards Docket No.: 13-ATTCP-01

ORDER TO APPROVE THE
REFRIGERATION SERVICE
ENGINEERS SOCIETY PROPOSED
ACCEPTANCE TEST TECHNICIAN
CERTIFICATION PROVIDER 2025
UPDATE REPORT FOR THE 2025
BUILDING ENERGY EFFICIENCY
STANDARDS

I. BACKGROUND

The California Energy Commission (CEC) approves Acceptance Test Technician Certification Providers (ATTCPs) that train, certify, and oversee installation technicians performing acceptance tests for nonresidential and multifamily buildings. Acceptance testing ensures that installed equipment, controls, and systems operate as required by the California Building Energy Efficiency Standards (Energy Code).

Section 10-103.2(d)2 of the Energy Code (codified in Title 24, Part 1, of the California Code of Regulations), requires ATTCPs to submit an update report to address changes to the Energy Code; and update reports are subject to the application review and determination process specified in section 10-103.2(e) of the 2025 Energy Code.

II. Refrigeration Service Engineers Society (RSES), an approved ATTCP, has applied to amend its approved application to comply with the 2025 Energy Code.

EXECUTIVE DIRECTOR'S RECOMMENDATION

RSES submitted an update report to amend its approved application on April 2, 2025, which proposes to modify its application in compliance with the 2025 Energy Code (RSES 2025 Update Report). RSES submitted subsequent application materials, with the final filing, including revisions, received on April 29, 2025, and August 27, 2025.

As specified in section 10-103.2(e) of the 2025 Energy Code, staff reviewed and validated all information received in the update report and determined that RSES meets the criteria and procedures in section 10-103.2(c) for providing acceptance testing certification services with exception to sections 10-103.2(c)3H and 10-103.2(c)3I. The

executive director concurred with these conclusions and signed a recommendation to approve the RSES 2025 Update Report.

Pursuant to section 10-103.2(e), the Executive Director will post the Executive Director recommendation and staff evaluation to docket number 13-ATTCP-01 (https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=13-ATTCP-01), providing an opportunity for public comment, and all comments will be considered by the November 12, 2025, business meeting.

RSES has not completed the database system for tracking completed acceptance tests and compliance forms as required by sections 10-103.2(c)3H and 10-103.2(c)3I. Staff proposes a Condition of Approval (COA) to allow the CEC to approve the RSES 2025 Update Report. Failure to demonstrate that the database meets the requirements specified in COA to the executive director's satisfaction shall result in automatic termination of the ATTCP's approval of the RSES Update Report.

Failure to comply with any other requirement of COA-2025-1 will result in the Executive Director rescinding the ATTCP approval of the RSES 2025 Update Report.

III. ENERGY COMMISSION FINDINGS

- Section 10-103.2(d)2 of the 2025 Energy Code, requires acceptance test technician certification providers to submit an update report to address changes to the Energy Code.
- 2. Update reports are subject to the Application Review and Determination process specified in section 10-103.2(e) of the 2025 Energy Code.
- RSES submitted an update report to amend its approved application on April 2, 2025, which proposes to modify its application in compliance with the 2025 Energy Code.
- 4. The Executive Director evaluated RSES' update report and observed that RSES has met the requirements in section 10-103.2(d)2 of the 2025 Energy Code with the consideration of the proposed condition of approval (COA-2025-1)
- 5. On October 31, 2025, the Executive Director provided a copy of the staff evaluation to interested persons and provided an opportunity for public comment.
- 6. The Executive Director provided a written recommendation describing the review and validation of the RSES update report by CEC staff and recommended approval of the RSES update report.
- 7. The Executive Director's written recommendation was made available for public comment on October 31, 2025.

- 8. The CEC has considered the Executive Director's recommendation, all written comments submitted, and oral comments made at today's business meeting on this matter.
- 9. The CEC has considered and agrees with staff's CEQA finding. The proposed action is exempt from CEQA.
- 10. Therefore, the CEC finds that the update report proposed by RSES meets the requirements in section 10-103.2(d)2 of the 2025 Energy Code and confirms the Executive Director's determinations, adopts their recommendation, and approves the RSES proposed update report subject to the condition that RSES complete the database system for tracking completed acceptance tests, as required by sections 10-103.2(c)3H and 10-103.2(c)3I by the dates on the recommended COA without significant disruption to industry. Once the Executive Director is satisfied with each stage, CEC staff will provide RSES with a written acknowledgement of compliance. Should RSES fail to comply with any requirement of COA-2025-1, its Update Report shall automatically terminate.

IV. CONCLUSION AND ORDER

The CEC hereby approves the RSES 2025 Update Report for the 2025 Energy Code and adopts the staff recommendation that this action is exempt from CEQA. Approval of the update report is as subject to the COA as set forth in the Executive Director's recommendation.

IT IS SO ORDERED.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the CEC held on November 12, 2025.

AYE: NAY: ABSENT: ABSTAIN:	
	Dated:
	Kim Todd Secretariat







MEMORANDUM

TO: CALIFORNIA ENERGY COMMISSION

FROM: DREW BOHAN

EXECUTIVE DIRECTOR

CALIFORNIA ENERGY COMMISSION

715 P STREET

SACRAMENTO, CALIFORNIA 95814

SUBJECT: EXECUTIVE DIRECTOR RECOMMENDATION TO APPROVE THE REFRIGERATION SERVICE

ENGINEERS SOCIETY (RSES) PROPOSED UPDATE REPORT FOR THE ACCEPTANCE TEST TECHNICIAN CERTIFICATION PROVIDER AMENDMENT APPLICATION FOR THE 2025

BUILDING ENERGY EFFICIENCY STANDARDS

DATE: OCTOBER 31, 2025

Executive Summary

The acceptance test technician certification providers (ATTCPs) program addresses training, certification, and oversight of acceptance test technicians (ATTs), as well as the acceptance test employers (ATEs). The technicians perform the tests required by the California Building Energy Efficiency Standards (Energy Code), and the employers are responsible for the technicians' work. ATTCPs are professional organizations that are approved to provide training curricula for ATTs and ATEs, certification procedures, complaint resolution (including disciplinary procedures), quality assurance, and accountability measures.

Acceptance testing ensures that installed equipment, controls, and systems in nonresidential and multifamily buildings operate as required by the Energy Code. ATTCPs must submit an update report after the California Energy Commission (CEC) approves an updated Energy Code. The CEC adopted the 2025 Energy Code on September 11, 2024, and the California Building Standards Commission approved the 2025 Energy Code on December 17, 2024. The 2025 Energy Code will go into effect on January 1, 2026. Update reports are subject to the application review and determination process specified in the California Code of Regulations, Title 24, Part 1, section 10-103.2(e).

The Refrigeration Service Engineers Society (RSES) submitted an update report to the CEC amending its application on April 2, 2025, April 29, 2025, and August 27, 2025, as required by section 10-103.2(d)2 of the Energy Code (the RSES 2025 Update Report). As specified in section 10-103.2(e) of the 2025 Energy Code, staff reviewed and validated all information received in the update report and determined that RSES meets the criteria and procedures in section 10-103.2(c) for providing acceptance testing certification services. Pursuant to section 10-103.2(e), the Executive Director will post the staff evaluation to docket number 13-ATTCP-01

(https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=13-ATTCP-01), and provide an opportunity for public comment.

The RSES has not completed the database system for tracking completed acceptance tests and compliance forms as required by sections 10-103.2(c)3H and 10-103.2(c)3I. I propose a Condition of Approval (COA) to allow the CEC to approve the RSES 2025 Update Report. I have confidence that the RSES will complete the requirements of the COA at the date specified. Failure to demonstrate that the database meets the requirements specified in the COA, shall result in automatic termination of the ATTCP's approval of the RSES Update Report. Failure to comply with any other requirement of COA-2025-1 will result in the Executive Director rescinding the ATTCP approval of the RSES 2025 Update Report.

Staff's evaluation is included in Exhibit A.

Recommendation of the Executive Director

Based upon staff's review and validation of the RSES application amendments, I recommend that the CEC confirm these findings and approve the RSES 2025 Update Report.

10/28/2025

Drew Bohan Executive Director California Energy Commission Date

EXHIBIT A

Staff Evaluation – Refrigeration Service Engineers Society **2025 Update Report**

Summary:

Staff have verified and reviewed the Refrigeration Service Engineers Society (RSES) 2025 Update Report to confirm that it is complete and complies with the requirements in section 10-103.2(c) of the 2025 Building Energy Efficiency Standards (Energy Code) in regard to its acceptance test technician certification provider (ATTCP) application with the exceptions and recommended condition of approval (COA) stated below. Staff reviewed the confidential and non-confidential information and verified that all changes needed to meet the requirements of the 2025 Energy Code are represented in the RSES 2025 Update Report.

Exceptions:

Sections 10-103.2(c)3H and 10-103.2(c)3I require the implementation of a database system to track and record acceptance test activities and results of certified acceptance test technicians (ATTs). RSES plans to change their current vendor for the database system to a different subcontractor. However, based on the progress made and the experience of RSES, staff are confident that RSES can complete the database system and satisfy the requirements in sections 10-103.2(c)3H and 10-103.2(c)3I by the specified dates on the recommended COA without significant disruption to industry. Staff recommended the following COA (COA-2025-1) for the California Energy Commission (CEC) to consider and allow RSES to proceed with the required training for the 2025 Energy Code as soon as possible. This will help ensure that the ATTs responsible for compliance with the Energy Code are fully trained and their customers are able to realize the energy savings from the 2025 Energy Code requirements.

Recommended Condition of Approval COA-2025-1:

RSES (or its representatives) shall develop and implement an online database web service in compliance with sections 10-103.2(c)3H and 10-103.2(c)3I. They shall submit all necessary evidence to the CEC to substantiate its claim of compliance with COA-2025-1. The following requirements shall be met by the corresponding dates below:

- Stage 1: By October 31, 2025, RSES's new database shall be fully functional and allow its ATT/ATEs the transmission of electronic copies of the 2022 Mechanical certificate of acceptance forms listed below:
 - NRCA-MCH-02A
 - NRCA-MCH-03A
 - NRCA-MCH-04A
 - o NRCA-MCH-05A
 - o NRCA-MCH-06A
 - o NRCA-MCH-07A

- NRCA-MCH-08A
- o NRCA-MCH-11A
- o NRCA-MCH-12A
- NRCA-MCH-18A
- NRCA-MCH-19A
- Stage 2: By December 31, 2025, RSES's Database shall be fully functional and allow its ATT/ATEs the transmission of electronic copies of all 2022 Mechanical certificate of acceptance forms.
- Stage 3: By March 31, 2026, RSES's Database shall be fully functional and allow its ATT/ATEs the transmission of electronic copies of all 2025 Mechanical certificate of acceptance forms.
- **Stage 4:** By June 30, 2026, RSES's Database shall finalize the transfer of all existing data from the previous vendor (ESCO DocReg) into the new RSES database.

Compliance:

RSES shall demonstrate each stage of compliance by the due date to the Executive Director. Once the Executive Director is satisfied with each stage, CEC staff will provide RSES with a written acknowledgement of compliance. Failure to comply with any requirement of COA-2025-1 may result in the CEC rescinding the ATTCP approval of the RSES.

Stage 1 compliance shall be demonstrated by RSES completing, recording, and producing a watermarked mechanical certificate of acceptance for each certificate listed in stage 1. Stage 2 compliance shall be demonstrated by RSES completing, recording, and producing a watermarked mechanical certificate of acceptance for each certificate required by the 2022 Energy Code. Stage 3 compliance shall be demonstrated by RSES completing, recording, and producing a watermarked mechanical certificate of acceptance for each certificate required by the 2025 Energy Code. Stage 4 compliance shall be demonstrated by RSES by producing the annual report required by the 2025 Energy Code (Section 10-103.2(d)1) and have it approved by the CEC.

Detailed Evaluation

The following tables identify all of the changes that may have affected the RSES update report. Staff considered all of these changes in its validation and review of the RSES 2025 Update Report.

Table 1: 2025 Changes Affecting the Training Curricula

Section	Description of Change
Table 100.0-A	Demand Responsive Controls sections added to the table.

, ,	Updated the standards year to 2023.
210/240 definition	
Section 100.1(b) – AHRI 420 definition	The purpose of this change is to add the definition for AHRI 420
420 definition	(2023 version), including specifics regarding the version of the
Section 100 1/b) AUDI	document used for Energy Code requirements The purpose of this change is to add the definition of AHRI 540.
Section 100.1(b) – AHRI 540 definition	The purpose of this change is to add the definition of AHRI 540 (2020 version),
540 definition	including specifics regarding the version of the document used for
	Energy Code Requirements.
Section 100.1(b) – AHRI	The purpose of this change is to add the definition of AHRI
1240 definition	1240(2023 version), including specifics regarding the version of the
1240 definition	document used for Energy Code Requirements.
Section 100.1(b) - Air-	This change added the definition for air-to water heat pumps to
To-Water Heat Pump	clarify the type of equipment that is required in new Energy Code
(AWHP) definition	requirements.
Section 100.1(b) -	The specific purpose of this addition is to include a definition for
ASHRAE Guideline 36	the ASHRAE Guideline 36 publication to state the title and topic
definition	and provide a precise understanding of the guideline's scope,
	objectives, and relevance in the context of building design with
	regard to energy efficiency. This inclusion will aid in promoting
	consistency, adherence, and effective utilization of the guideline's
	principles and strategies
Section 100.1(b) –	The specific purpose of this change is to update to the current
ASHRAE Standard 62.1	version of ASHRAE 62.1 (2022 version) to be referenced by Title 24,
definition	Part 6.
Section 100.1(b) –	The specific purpose of this change is to update to the current
ASHRAE Standard 62.2	version of ASHRAE 62.2 (2022 version) to be referenced by Title 24,
definition	Part 6.
Section 100.1(b) –	Added definition for Compartmentalization.
Compartmentalization	
definition	
Section 100.1(b) –	The specific purpose of the change is to update the terminology of
Energy Budget	Time Dependent Valuation to Long-term System Cost. The Energy
definition	Budget definition is updated to include all terms for which an
	energy budget is set, Long-term System Cost and Source Energy.
	Definition of each of these terms is also added to Section 100.1(b).
	Time Dependent Valuation, which is no longer being used for
Section 100 1/h)	setting an energy budget, is deleted.
Section 100.1(b) –	The specific purpose of the changes is to remove definitions
Energy Design Rating	relating to Energy Design Rating (EDR). The following EDR
(EDR) definitions	definitions have been removed: • Energy Design Rating (EDR) • Energy Design Rating, Energy Efficiency • Energy Design Rating,
	Solar Electric Generation and Demand Flexibility• Energy Design
	Rating, Total.
Section 100.1(b) – EER2	Updated definition of EER2.
definitions	opation dominion of LENZ.
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Section 100.1(b) – Energy Storage System (ESS) definition	This definition is being merged with the definition for Battery Energy Storage System (BESS) and subsequently removed. All Standards references to battery storage system and energy storage system are also being updated to BESS to reflect this change.
Section 100.1(b) – Healthcare Facility definition	This change revised the definition of healthcare facility to clarify that only health facilities, as defined in the California Health and Safety Code Division 2, Chapter 2, Section 1250, and clinics, as defined in the California Health and Safety Code Division 2, Chapter 1, Section 1204, located within a health facility fall under the healthcare facility category.
` '	The specific purpose of this change is to add a definition for the term Long-term System Cost, which replaces the term Time Dependent Valuation as the primary compliance metric for the Energy Code performance approach. The definition provides a clear and specific definition for this technical term, which is used within other updates to Part 6, aligned with the use of the term where it is proposed to occur later in the Energy Code. This includes the added definition for new industry standards documents that are incorporated by reference into later portions of the Energy Code.
Multiple Zone System	Minor changes to definition.
Net Free Area (NFA)	New definition added regarding the total unobstructed area within
(,	the air gaps between louver and grille slats in a vent.
Section 100.1(b) -	This change will add occupancy group L to the list of building
Nonresidential Building definition	occupancy groups covered under the nonresidential building definition.
Section 100.1(b) – Nonresidential Building Types – Events & Exhibits Building definition	The purpose of this change is to add a definition to a newly covered space under our photovoltaic and energy storage system requirements of Section 140.10.
Section 100.1(b) – Nonresidential Building Types – Religious Facility Building	The name was updated, and the definition was removed from the code.
Section 100.1(b) – Nonresidential Building Types – Religious Worship Building definition	The purpose of this change is to add a definition to a newly covered space under our photovoltaic and energy storage system requirements of Section 140.10.
100.1(b) – Nonresidential Building Types – Sports & Recreation Building definition	The purpose of this change is to add a definition to a newly covered space under our photovoltaic and energy storage system requirements of Section 140.10.

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Section 100.1(b) – Nonresidential Building Types – Warehouse Building definition	New Definition added to the list of Nonresidential building.
	Added definition for laboratory energy Occupancy group I
Section 100.1(b) –	Added definition for laboratory spaces. Occupancy group L
	includes laboratory spaces and spaces supporting laboratory
Areas – Laboratory	spaces. A definition to specify laboratory spaces versus the
definition	occupancy group L in general was provided to clarify that only the
	lab spaces would have to meet laboratory requirements and be
	able to use appropriate exceptions.
Section 100.1(b) –	Added definition for laboratory suite. The building code definition
Nonresidential Function	for Occupancy group L is based off the term laboratory suites.
Areas – Laboratory	Laboratory suites include laboratory spaces, and offices, storage
Suite	rooms and other spaces supporting laboratory spaces. A definition
	to specify laboratory spaces versus the occupancy group L,
	laboratory suites, in general was provided to clarify that only the
	lab spaces would have to meet laboratory requirements and be
	able to use appropriate exceptions.
Section 100.1(b)	Added definition for OpenADR 3.0 Baseline Profile.
OpenADR 3.0, Baseline	
Profile definition	
Section 100.1(b) -	Added definition for Programming Library.
Programming Library	
definition	
Section 100.1(b) -	Updated definition to add Section References.
Proposed Design	
Building definition	
Section 100.1(b) -	Added definition for Recovered Energy, on-site.
Recovered Energy, On-	
Site definition	
Section 100.1(b) -	Added definition for Simultaneous Mechanical Heat Recovery.
Simultaneous	
Mechanical Heat	
Recovery definition	
Section 100.1(b) - Single	Added definition for Single Zone Constant Volume Heat Pump.
Zone Constant Volume	
Heat Pump definition	
Section 100.1(b) -	The specific purpose of the revision in the definitions is to add a
Ventilation System	specification requiring 'at least one' mechanical device comply
definitions	with the ventilation
	strategies. The revised definitions are:
	VENTILATION SYSTEM, BALANCED
	VENTILATION SYSTEM, EXHAUST
	VENTILATION SYSTEM, SUPPLY
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Section 100.1(b) -	VEN is an interface that can be an Energy management system or
Virtual End Node (VEN)	a thermostat that accepts demand response signals through Open
definition	Automated Demand Response (OpenADR). The definition has
	been updated to add a new specification OpenADR 3.0 to existing
	OpenADR 2.0a or 2.0b.
Section 110.2(a)	Updated Table reference and inclusion of reference to federal
, ,	minimum efficiency requirements.
Section 110.2(b)	The purpose of this change is to identify the requirement for
	supplementary heater controls for heat pumps in single family
	buildings described in Section 150.0(h)7. This change helps
	provide clarity and distinction in heat pump control requirements
	between single-family buildings and other building types, such as
	non-residential and multifamily buildings.
Section 110.2(e) Open	The revisions to this Section will remove the option for flow-based
and Closed-Circuit	controls, specify water parameters for blowdown controls in a new
Cooling Towers	table, and add testing requirements by reference to NA 7.5.18.
Table 110.2-A-1	This table was added to provide the minimum parameters for
	cooling tower blowdown.
Table 110.2-A through	Remove specific numerical federal minimum values and include a
110.2-N	general reference federal minimum value. Tables 110.2-E, 110.2-I,
	110.2-J, 110.2-L, and 110.2-M were removed because they were
	completely reliant on federal minimum values.
Table 110.2-A	Updated min efficiency values to Federal Min IEER and EER.
Table 110.2-B	Updated min efficiency values to Federal Min IEER, EER and COP.
Table 110.2-E	Removed Table from the Energy Code.
Table 110.2-E	Table 110.2-F was renamed to Table 110.2-E to reflect removal of
	tables.
Table 110.2-F	Table 110.2-G was renamed to Table 110.2-F to reflect removal of
	tables. Specific federal minimum values were removed because
	they were completely reliant on federal minimum values.
	Minimum efficiencies reliant on ASHRAE 90.1 were updated to
	reflect minimum efficiencies as of 01/01/2024.
Table110.2-G	Table 110.2-H was renamed to Table 110.2-G to reflect removal of
	tables. Specific federal minimum values were removed because
	they were completely reliant on federal minimum values.
	Minimum efficiencies reliant on ASHRAE 90.1 were updated to
	reflect minimum efficiencies as of 01/01/2024.
Table110.2-H	Update minimum efficiency requirement based on ASHRAE 90.1
	efficiencies.
Table110.2-I	Removed Table from the Energy Code.
Table110.2-J	Removed Table from the Energy Code.
Table110.2-K	Table 110.2-K was renamed to Table 110.2-H to reflect removal of
	tables. Update minimum efficiency requirement based on
	ASHRAE 90.1 efficiencies.
Table110.2-L	Removed Table from the Energy Code.
Table110.2-M	Removed Table from the Energy Code.

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Table 110.2-N was renamed to Table 110.2-I to reflect removal of tables. The new table breaks out efficiency requirements for
cooling operations.
Table 110.2-J was added and named to reflect removal of tables.
The new table breaks out efficiency requirements for heat pump
requirements originally included in Table 110.2-N.
Table 110.2-K was added and named to reflect removal of tables.
The new table breaks out efficiency requirements for
simultaneous heating and cooling
requirements originally included in Table 110.2-N.
Table 110.2-L was added and named to reflect removal of tables.
The new table breaks out efficiency requirements for heat recovery
which would have been added to Table 110.2-N.
The specific purpose of this change is to add mandatory
ventilation and backup heat requirements to heat pump water
heater installations to ensure best practice in heat pump water
heater installations and energy efficiency.
The specific purpose of the change is to replace "pathway" with
"protocol" in the term "wired or wireless bidirectional
communication", and the change is to clarify the demand
responsive controls communications. The word "protocol",
according to Merriam-Webster Dictionary, means a set of
conventions governing the treatment and especially the formatting
of data in an electronic communication system, such as network
protocols, whereas the word "pathway" could be understood to be
a path or a particular way of achieving something. The revised term
"wired or wireless bidirectional communication protocol" with the
word "protocol" conveys a more accurate information about what
constitutes as the qualified wired and wireless bidirectional
communications.
The specific purpose of the change is to replace "communication"
with "the demand response signal" and the change is to clarify it is
during the scenario that the demand response signal is disabled or
unavailable that the requirement of Section 110.12(a)4 would
apply.
Added text for Evaporative coolers are not subject to the air
filtration requirements of Section 120.1(c)1.
The specific purpose of these non-substantial changes is to align
natural ventilation requirements with ASHRAE 62.1 – 2022 version.
indicated volitication requirements with 7 to 11 to 22.1 2022 version.
These changes
These changes
These changes make clear the requirements of different building openings and

Section 120.1(c)2, 120.1(c)2D, Exception 1 to Section 120.1(c)2D, Exception 2 to Section 120.1(c)2D	The specific purpose is to move the mechanical ventilation requirements from Section 120.1(c)2 to Section 120.1(c)2D to improve clarity of the requirements of mechanical ventilation even with a natural ventilation design approach.
Section 120.1(c)3	The specific purpose of these changes is to revert the language to align with 2019 Building Energy Code ventilation logic. The exception that was added in the 2022 Building Energy Code was intended to clarify this Section, but instead had removed this 'greater than logic' for ventilation.
Section 120.1(d)4E	The specific purpose of these changes is to align with the changes made to the minimum ventilation requirements in Section 120.1(c)3 and Table 120.1-A. This increases clarity of the requirements for minimum ventilation which has been an issue for the last two code cycles.
Section 120.1(d)5	The specific purpose of these changes is to make clear the requirements of this Section without changing stringency and to follow similar formatting of previous subsections in 120.1.
Section 120.1(f)1	The specific purpose of this change is to modify the language for clarity without changing the intent.
Section 120.1(g)	Updated reference to the latest ASHRAE 62.1-2022 Subsections.
Table 120.1-A	The specific purpose of these changes is to align the table with the California Mechanical Code and the revisions to the minimum ventilation rates in 120.1(c)3.
Table 120.1-B and Table 120.1-C	The specific purpose is to align with the table updates provided in ASHRAE 62.1 – 2022 version. These changes make clearer of new space requirements for air classification and minimum exhaust which allows the Energy Code to align with new table references in ASHRAE 62.1-2022 version which were unaligned in the previous code cycle.
Section 120.2(b)4 – Exception 1 – Edited for clarity	The specific purpose of this change is to modify the language for clarity without changing the intent.
Section 120.2(l)	The specific purpose of this change is to add mandatory requirements to limit hot water supply temperature to no greater than 130 °F for HVAC space-conditioning systems. These changes intend to save energy by reducing pipe distribution energy loss. This new measure will be required in newly constructed buildings as well as additions and alterations.
Section 120.5(a)4 and Exception to Section 120.5(a)4	The purpose of these non-substantive changes is to include DOAS, HRV, and ERV systems to be tested under NA7.5.4 for air economizing. The exception to this testing includes systems that do not meet the specification of sections 140.4(q)1 or 140.4(q)2.
Section 120.5(a)19	Added a new conductivity controls and overflow alarms acceptance tests for cooling towers.

Section 120.10(a)2	Added reference for third party verified fan energy index values in Appendix A.
Section 140.4(a)2	Removed reference to all other system types.
Exception to Section	The purpose of deleting the exception to Section 140.4(a)2, which
140.4(a)2	pertains to systems utilizing recovered heat for space heating, is to
	ensure that all applicable systems adhere to the new requirement
	for mechanical heat recovery in Section 140.4(r).
Section 140.4(a)3	The purpose of adding the Section titled " Multi-zone space-
	conditioning system types " to Title 24, Part 6 is to establish
	specific and tailored requirements for space-conditioning systems
	in office buildings and school buildings not otherwise covered by
	Section 140.4(a)2.
Section 140.4(a)3A	The inclusion of specific requirements for space-conditioning
	systems in office buildings serves the purpose of advancing energy
	efficiency and occupant comfort. The emphasis is on system
	features such as variable refrigerant flow, dedicated outdoor air
	systems, and heat recovery systems enhancing both energy
	efficiency and indoor air quality. Additionally, the inclusion of
	demand-controlled ventilation (DCV) and parallel fan powered
	terminal units in specific climate zones further contributes to the
	overall goal of reducing energy consumption and promoting
	sustainable practices in office buildings.
Section 140.4(a)3B	Removed from the Energy Code.
Section 140.4(a)3C	The purpose of stipulating a minimum heating Coefficient of
	Performance (COP) at specific outdoor temperatures is to
	mandate the use of AWHPs that demonstrate high efficiency in
	colder conditions, contributing to reduced energy consumption
	and operational costs. The requirement to maintain the water
	temperature above the hot water loop's design supply
	temperature will ensure effectiveness of the heating system while
	prioritizing occupant comfort. These regulations establish a
	comprehensive and efficient framework for AWHP space-heating
	hot water loops, promoting energy conservation, sustainability,
	and the reliable operation of heating systems.
Section 140.4(a)3D	The purpose of this Section is to establish energy-efficient
	standards for fan systems in office and school buildings served by
	multi-zone space-conditioning systems. By imposing a maximum
	power consumption limit of 0.35 W/cfm at their design airflow
	rate, this aims to promote the use of technologically advanced,
	low energy-consuming fans. The requirement for a minimum of
	three different speeds, as well as the ability to turn off when there
	is no heating or cooling demand in the space is intended to
	enhance user flexibility and comfort, allowing for tailored
	ventilation solutions.
Section 140.4(a)3E	The purpose of this requirement is to clarify that space-
	conditioning systems subject to this Section must comply with

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	Sections 140.4(p) and 140.4(q) emphasizing the importance of
	aligning Dedicated Outdoor Air Systems (DOAS) with
	comprehensive guidelines, consistency, and effectiveness in
	outdoor air management. The incorporation of heat recovery
	systems supports the overarching goal of energy conservation by
	capturing and repurposing energy that would otherwise be
	wasted.
Section 140.4(a)3F	Updated to Parallel fan powered boxes used to comply with
	Section 140.4(a)3Aiii shall use recirculated zone or plenum air in
	heating mode.
Section 140.4(a)3G	Removed from the Energy Code.
Section 140.4(b)3A, Ai,	The purpose of this change is to add an alternative source of
and Aii	outdoor design conditions from ASHRAE Handbook Equipment
31147111	Volume, Applications Volume and Fundamental Volume. ASHRAE
	Handbook is already used for indoor design conditions under
	Section 140.4(b)2A. As part of this addition, the term 99.0 percent
	Heating Dry Bulb is introduced as an alternative to the Heating
	Winter Median of Extreme values. This change aligns with similar
	changes in Sections 150.0(h)2B and 160.3(b)2.
Exception to Section	The purpose of this exception is to clarify that the fan power
140.4(c)1	referenced in Section 140.4(c) needs to meet the requirements of
140.4(0)1	Section 140.4(a)3.
Section 140.4(c)2Bi-ii	The changes made to this Section included breaking Section
Section 140.4(c)2DI-II	
	140.4(c)2B into two subsections (i and ii) to further assist
	comprehension of the relevant standards. The specific purpose for
	the removal of the example and instead include an ASHRAE
	Guideline 36 compliance requirement for VAV systems. static
	pressure setpoint reset control in subsection ii, is to provide
	readers with a specific reference they can rely upon when
0 11 110 11 110 1	configuring these systems.
Section 140.4(d)2Av	The specific purpose of the addition is to include an ASHRAE
	Guideline 36 compliance requirement for space-conditioning
	zones with Direct Digital Controls (DDC).
Exception 3 to Section	The purpose of this change is to modify terminology and eliminate
140.4(d)	the use of the term "exempt" for clarity without changing the intent
	of the Energy Code. The Energy Code establishes unique
	requirements for Covered Process loads as defined in Section
	100.1. Exception 3 addresses process loads that are not covered
	process loads; using the term non-covered process loads is the
	simplest and least ambiguous way to convey the intent of the
	exception. When particular requirements in the Energy Code are
	not applicable to particular construction situations or equipment
	for specific reasons, the Energy Code does provide exceptions that
	indicate compliance is not required in that instance.
Exception 2 to Section	Removed reference to TDV and added LSC.
140.4(e)1	

Exception 8 to Section	Added additional systems complying with Section 140.4(a)3Ai,
140.4(e)1	140.4(a)3Aii
Section 140.4(e)2D	The specific purpose of this addition is to include the ASHRAE Guideline 36 compliance requirement for economizers when they are controlled by a direct digital control (DDC). Additionally, format changes and related references are made to adjust for this addition in the subsequent Sections, where previous Section D becomes E, and the previous Section E becomes F.
Section 140.4(f)3	The specific purpose of the addition is to include the ASHRAE Guideline 36 compliance requirement for supply air temperature reset controls in buildings with automated Direct Digital Controls (DDC).
Exception 7 to Section 140.4(g)	Added supplemental electric resistance heating complying with Section 140.4(a)3C.
140.4H-2, and Exception 2 to Section 140.4(h)5	These proposed changes update the cooling tower efficiency prescriptive requirements and include a new table, Table 140.4 H-2, based on climate zone. It also removes exceptions for climate zone 1 and 16 previously provided in Exception 2.
Exception to Section 140.4(p)1	Added DOAS complying with Section 140.4(a)3E.
2 to Section 140.4(q)1	The purpose of this change is to modify terminology for clarity, locate exceptions as close as possible to the requirement that is the subject of the exception, and avoid the use of the term "exempt". Exception 1 and 2 are providing exceptions to one specific provision of Section 140.4(q), namely Section 140.4(q)1. Without the change these exceptions currently are designated as Exceptions 4 and 5 to the global Section 140.4(q). The exceptions need to be moved to follow the directly applicable provision (similar to Exception to Section 140.4(q)2). As a result, the current Exception 6 and Exception 7 to Section 140.4(q) are renumbered to be Exceptions 4 and 5 respectively, to Section 140.4(q). When particular requirements in the Energy Code are not applicable to particular construction situations or equipment for specific reasons, the Energy Code does provide exceptions that indicate compliance is not required in that instance. Exceptions 1 and 2 are rewritten to avoid the use of the term "exempt" and to simply and unambiguously state that provisions of Section 140.4(q)1 are not required for specific climate zones.
Section 140.4(r)	The specific purpose of this addition is to include requirements for HVAC systems with DDC that align with use of ASHRAE Guideline 36 programming libraries. HVAC systems with DDC shall use controller logic originating from a programming library based on sequences of operation from ASHRAE Guideline 36.
Exception 1 to Section 140.4(r)	The purpose of this exception is to allow for adaptation and customization of DDC program logic not provided by ASHRAE Guideline 36.

Exception 2 to Section	Provides an exception to healthcare facilities which is not within
140.4(r)	the scope of ASHRAE Guideline 36.
Exception to Section	This exception was removed from the Energy Code.
140.4(r)3	o
Section 140.4(s)	The specific purpose of this change is to add prescriptive
0000011140.4(0)	requirements for Mechanical Heat Recovery that have
	simultaneous heating and cooling loads for new buildings to
	recover energy to be used elsewhere in the building and prevent
	wasteful energy. Exception 1 to Section 140.4(s)1 applies to
	laboratory exhaust systems already meeting covered process
	requirements for heat recovery and Exception 2 for 140.4(s)1 is for
	climate zone 15 where it was not found to be cost effective to
	incorporate these heat recovery standards. Global Exception 1 to
	· ·
	Section 140.1(s) does not require compliance for computer rooms
Caption 140 4/a\0	that already incorporate large amounts of heat recovery.
Section 140.4(s)2	The specific purpose of this change is to add prescriptive
	requirements for Mechanical Heat Recovery that have
	simultaneous heating and cooling loads to include heat recovery
	for service water heating. Another option is added here to use
	recouped energy to heat service hot water instead of space
	heating in the previous section.
Exceptions 4 through 6	The purpose of these changes is to eliminate the use of the term
to Section 141.0(a)	"exempt" for clarity without changing the intent of the Energy
	Code. When particular requirements in the Energy Code are not
	applicable to particular construction situations or equipment for
	specific reasons, the Energy Code does provide exceptions that
	indicate compliance is not required in that instance.
Section 141.0(b)2C to	The purpose of the changes to this Section is to ensure that
141.0(b)2Ci,	prescriptively installed equipment relies on heat pump technology
141.0(b)2Cii and	where feasible and cost effective. Subsection 141.0(b)2C was
141.0(b)2Ciii	partially moved to a new Subsection, 141.0(b)2Ci, and a new
	141.0(b)2Cii was created to address the new requirements for new
	or replacement single zone packaged rooftop systems with direct
	expansion cooling. Subsection 141.0(b)2Ciii was deleted to
	delineate specific instances where the prescriptive inclusion of an
	economizer is applicable. This clarifies that single zone system
	types with a capacity of less than 65,000 Btu/hr are to have an
	economizer and that all single packaged unitary air systems from
	54,000 Btu/hr and greater are to include an economizer.
Exception 1 to	This exception exempts existing buildings from the heat pump
141.0(b)2C	requirements of 140.4(c)2. The exception was deleted, and it was
	relocated to Exception 1 to Section 141.0(b)2C. The exception also
	added an exemption to 140.4(c)3 since they are only applicable to
	newly constructed buildings.
Exception to Section	This exception serves to clarify that when an alteration surpasses
141.0(b)2Cii	the capacity of the existing main service panel or service
. , ,	

	transformer, the provisions outlined in Section 141.0(b)2Cii no longer apply.
Table 141.0-E-1	The purpose of this table is to outline specific requirements and specifications for different types of HVAC systems based on the type of building and its climate zone. The table provides information on the recommended configurations for air conditioning systems with various building types and climate zones. The table is organized by different building types (Retail and grocery, School, Office, financial institution, Library) and climate zones.
Exception 3 to Section 141.0(b)2C	The specific purpose of this addition is to provide an exception which makes clear that interlocks are not required on existing windows that did not previously have interlocks when replacing the space conditioning system.
Exception 3 to Section 141.0(b)2C (removed)	Removed the exception 3 relating to single package air-cooled commercial unitary air conditioner or heat pumps with a capacity less than 54,000 btu/h. Section 141.0(b)2Ciii clarifies that single zone system types with a capacity of less than 65,000 Btu/hr are to have an economizer and that all single packaged unitary air systems from 54,000 Btu/hr and greater are to include an economizer.
Exception 5 to Section 141.0(b)2C	The specific purpose of this addition is to include an exception to ensure that Sections 140.4(c)2Bii, 140.4(d)2Av, 140.4(e)2D, and 140.4(f)3, and 140.4(r) do not apply to alterations unless the space-conditioning systems are new or replacements.
Exception 6 to Section 141.0(b)2C	Added for systems that are not compatible with 140.4(e) that meet both requirements.
Section 141.0(b)2Dii	The purpose of this change is to delete field verification and diagnostic testing and replace it with acceptance testing.
Exception 1 to Section 141.0(b)2Dii	Updated reference from HERS Rater to MATT.
Exception 2 to Section 141.0(b)2Dii	The purpose of this change is to use clearer and unambiguous language and avoid the use of the term "exempt". This exception is rewritten to avoid the use of the term "exempt" and to simply and unambiguously state the requirements that are not required to comply with this Section.
Section 141.0(b)2Diii	The purpose of this change is to use clearer and unambiguous language and avoid the use of the term "exempt". This exception is rewritten to avoid the use of the term "exempt" and to simply and unambiguously state the requirements that are not required to comply with Section 141.0(b)2Di or Section 141.0(b)2Dii.
Exception 3 to Section 141.0(b)2Eii	The purpose of this change is to use clearer and unambiguous language and avoid the use of the term "exempt" and replace with "not required to comply".
Exception to Section 160.2(b)1	The purpose of this change is to use clearer and unambiguous language and avoid the use of the term "exempt". This exception is

	rewritten to avoid the use of the term "exempt" and to simply and unambiguously state that evaporative coolers are not required to otherwise comply with Section 160.2(b)1.
Exception to Section 160.2(b)2	Section 4.2 and 6.1.3 added to and 6.5.2 was removed from the Energy Code.
Section 160.2(b)2Aivb	The specific purpose for the changes to this Section are to require both balanced ventilation and compartmentalization, with supplyonly ventilation to be used in lieu of balanced ventilation, updating requirements such that dwelling units shall comply with both updated subsections 1 and 2.
Section 160.2(b)2Axia	The specific purpose of this change is to add the subsection "xia", which includes IAQ system filter and HRV/ERV accessibility requirements within occupiable spaces, basements, garages, balconies, mechanical closets, or accessible rooftops for regular service and not be located more than 10 feet above a walking surface inside a space specified above for compliance with this requirement.
Exception to Section 160.2(b)2Axia	The specific purpose for adding this exception is to incorporate accessibility requirements for systems requiring servicing from inside of an attic.
Section 160.2(b)2Axib	The specific purpose of this change is to add subsection "xib" to include IAQ system component accessibility which references California Mechanical Code (CMC) Section 304.0.
Section 160.2(b)2Biv	The purpose of this change is to mention NA1.9 directly in the Energy Code (Title 24, Part 6).
Exception to Section 160.2(b)2C	The specific purpose of this change is to add an exception to Section 160.2(b)2C for multifamily buildings with three or fewer habitable stories in Climate Zone 6.
Exception 1 to Section 160.2(c)2 and Exception 2 to Section 160.2(c)2D	The specific purpose of these non-substantial changes is to move the Exception 1 to Section 160.2(c) to become Exception 2 to Section 160.2(c)2D. This does not change the intent of the code, but will better clarify the requirements.
Exception 2 to Section 160.2(c)2 and Exception 1 to Section 160.2(c)2D	The specific purpose of these non-substantial changes is to move the Exception 2 to Section 160.2(c) to become Exception 1 to Section 160.2(c)2D. This does not change the intent of the code, but will better clarify the requirements.
Section 160.2(c)2A and B	The specific purpose of these non-substantial changes is to align natural ventilation requirements with ASHRAE 62.1 – 2022 version. These changes make clearer the requirements of different building openings and correctly cites the new Sections in ASHRAE 62.1-2022 version which were unaligned in previous code cycle.
Section 160.2(c)2, 160.2(c)2D	The specific purpose of these non-substantial changes is to move the mechanical ventilation requirements previously located in the body text header of 160.2(c)2 into the listed requirements subsection D.

Section 160.2(c)3	The specific purpose of these changes is to revert the language to align with 2019 Building Energy Code ventilation logic where it is intended that code users comply with the larger of Equation A or B. The exception that was added in the 2022 Building Energy Code was intended to clarify this Section, but instead it had incorrectly been interpreted to remove this 'greater than logic' for ventilation.
Section 160.2(c)5Dv	The specific purpose for the changes reflected in the Section referenced above including referencing the equation is to align this Section with the new changes made to the minimum ventilation Section 160.2(c)3 and Table 160.2-B, where the process for determining ventilation rates have been changed back to a comparison greater than equation. This increases clarity and promotes consistency of the requirements for minimum ventilation which has been an issue for the last two code cycles.
Section 160.2(c)5E	The specific purpose of these changes is to make clear the requirements of this Section without changing stringency and for format consistency.
Section 160.2(c)8	The specific purpose of these changes is to update the references to the ASHRAE 62.1 document.
Table 160.2-A	The specific purpose of these changes is to remove these tables entirely. They are not being used and were copied over in the previous cycle to the multifamily Section by mistake.
Table 160.2-B	The specific purpose of these changes is to mimic the nonresidential Table 120.1-A which align with the California Mechanical Code. The changes to the footnotes of this table align with the nonresidential table changes in reverting the ventilation equation back to the greater than comparison described in Section 120.1(c)3 of this document.
160.2-D	The specific purpose of these changes is to align the referenced tables above with the table updates provided in ASHRAE 62.1 – 2022 version. Changes to Table 160.2-C update the reference to the same table in ASHRAE 62.1. Changes to Table 160.2-D include new entries that provide air classification.
Table 160.2-E	Removed compliance criteria for Nonenclosed kitchen.
Exception to Section 160.3(b)1	Exceptions – Block loads added to the Energy Code.
Section 160.3(b)2B, C	The purpose of this change is to add alternative sources of outdoor design conditions from the ASHRAE Handbook, Equipment Volume, Applications Volume and Fundamental Volume, SMACNA Residential Comfort System Installation Standards Manual, and ACCA Manual J. These sources are already used for calculating cooling and heating loads under Section 150.0(h)1. As part of this addition, the term 99.0 percent Heating Dry Bulb is introduced as an alternative to Heating Winter Median of Extreme values. This change aligns with similar changes in Sections 140.4(b)3 and 150.0(h)2.

Exception 1 to Section 160.3(b)5Liii	Single speed compressors removed.
Section 160.3(b)7	The purpose of this change is to add requirements for heat pumps space-conditioning systems with defrost delay timers to have their delay timers set to no less than 90 minutes in order to reduce the frequency and energy use of the defrost operation. An exception is included for dwelling units in climate zones 1, 6, 7, 8, 9, 10, 15 and 16 because staff's analysis did not show cost effectiveness in those climate zones.
Section 160.3(b)8	The purpose of this change is to add a requirement for variable and multispeed space conditioning systems to be capable of responding to heating and cooling loads by modulating system compressor speed when the systems are controlled by third party thermostats. This change will also require the installer to test and certify the control configuration.
Section 160.3(c)1Aii	The specific purpose of this change is to add reference of "suction" to the refrigerant line insulation requirement. This matches the refrigerant suction line insulation requirement for space cooling systems and similar changes made to Section 120.3(a)2.
Section 160.3(c)2Hi	The purpose of this change is to delete the HERS field verification and diagnostic testing and replace it with acceptance testing.
Section 160.3(d)1D, and	The purpose of this change is to modify terminology and avoid the
Exception to Section 160.3(d)1D	use of the term "exempt" for clarity without changing the intent of the Energy Code. When particular requirements in the Energy Code are not applicable to particular construction situations or equipment for specific reasons, the Energy Code does provide exceptions that indicate compliance is not required in that instance. DOAS, HRV, and ERV systems were also added to the have to meet the requirements
Section 160.3(d)2A	The purpose of this change is to remove acceptance testing for high-rise multifamily dwelling unit ventilation systems. In addition to reformatting the subsequent subsections to properly reflect the removal of previous A and B Sections.
Section 160.3(d)2B	The purpose of this change is to remove acceptance testing for high-rise multifamily dwelling unit enclosure leakage test. In addition to reformatting the subsequent subsections to properly reflect the removal of previous A and B Sections.
Section 170.1	The specific purpose of this change is to clarify that energy budgets for multifamily buildings are expressed in terms of Long-Term System Cost in Section 170.1(a). Obsolete language stating that energy budgets are expressed in Time Dependent Evaluation is deleted. Inaccurate Sections 170.1(b) and 170.1(c) indicating that energy budgets are separately established for the standard design building and the proposed building are eliminated. Explanation of how the energy budget is calculated for the

	standard design building using Commission-certified compliance
0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	software is stated clearly and succinctly in Section 170.1.
Section 170.1(b)2D	The Thermal Balance Valve requirement was placed in subsection
	D because subsection D was initially reserved as a placeholder for
2 1=2 1(1)2=	future requirements and this simplifies the code.
Section 170.1(b)2F,	The purpose of this change is to remove the performance credit
170.1(b)2G, and	options for multifamily buildings for whole house fans, central fan
170.1(b)2J	ventilation cooling systems, and precooling, as they are
	infrequently installed in multifamily buildings.
Section 170.2(c)2C	The purpose of this change is to add alternative sources of outdoor
	design conditions from the ASHRAE Handbook, Equipment
	Volume, Applications Volume and Fundamental Volume. These
	sources are already used for calculating cooling and heating loads
	under Section 150.0(h)1. As part of this addition, the term 99.0
	percent Heating Dry Bulb is introduced as an alternative to Heating
	Winter Median of Extreme values. This change aligns with similar
	changes in Sections 140.4(b)3 and 150.0(h)2.
Section	The purpose of this change is to remove the option that allowed for
170.2(c)3BiaIIIB	refrigerant charge verification through the installation of
	equipment that utilizes a fault indicator display (FID).
Section 170.2(c)3Biva	The specific purpose of this change is to update subsection iv
and b	including the requirements for balanced ventilation systems with
	heat/energy recovery ventilation systems to revise the prescriptive
	requirements in all newly constructed multifamily dwelling units in
	climate zones 1, 2, 4, 11 through 14, and 16 to use balanced
	ventilation with an HRV or ERV.
Section 170.2(c)3Bivc	The specific purpose of this change is to strike out climate zone 4
	and add climate zone 15 to require a heat pump space-
	conditioning system installed to meet the requirements of Section
2	170.2(c)3Ai.
Section 170.2(c)3Bv	The specific purpose of this change is to include all HRV/ERV
	systems serving an individual dwelling unit to have an FID that is
	ECC-rater field verified as specified in the Reference Joint
F 0.	Appendix JA17.4.
Exception 6 to	The specific purpose of the change is to reorganize language from
170.2(c)4Ci	170.2(c)4N to Exception 6 to 170.2(c)4Ci and to clarify language. A
	new exception for air handlers that have a design total mechanical
	cooling capacity less than 54,000 Btu/hr where ventilation is
	provided by a DOAS with exhaust air heat recovery in accordance
Continu 170 0/5\45	with Section 140.4(p) and two additional requirements.
Section 170.2(c)4Fv and	1
Exception 2 to Section	tower efficiency prescriptive requirements based on climate zone
170.2(c)4Fv	and to remove exceptions for climate zone 1 and 16.
Table 170.2-I	Add table specifying the cooling tower efficiency requirements
	based on the climate zone.

Section 170.2(c)4N	The specific purpose of the change is to provide clarity on the requirements of Dedicated Outdoor Air System for the different configurations and to simplify code language by moving requirements related to economizing to the economizer section in Exception 6 to 170.2(c)4Ci. This change aligns with the Nonresidential Section in 140.4(e) and (p) and removes the greater than 1,000 CFM requirement.
Exception 4 and 5 to	Removal of the word 'exempted' and added 'not required' to the
170.2(c)4O	Energy Code.
Exception to 180.1(a)2	The specific purpose of this change is to add an exception in the mechanical ventilation for indoor air quality section to specify dwelling unit air leakage test is not required for additions.
Exception to	The specific purpose of this change is to add an exception to
180.1(a)2Aii	Section 180.1(a)2Aii that specifies new, or replacement ventilation systems shall be supply, balanced, or the existing ventilation type when additions are incorporated to an existing dwelling unit of which conditioned floor area is more than 1,000 square feet.
Section 180.2(b)2Aivb	Simplified listing of climate zones for Altered space-conditioning system mechanical cooling.
Section	The purpose of this change is to remove the option that allowed for
180.2(b)2AivbIIB	refrigerant charge verification through the installation of
, ,	equipment that utilizes a fault indicator display (FID).
Exception 2 to Section	The specific purpose of this change is rewriting this language to be
180.2(b)2Bi	clearer that interlocks are not required on operable wall and roof
	openings that did not previously have interlocks when replacing
	the space-conditioning system. As previously written, it did not
	explicitly address the applicability of these requirements to
	existing buildings. This change is not substantive.
Exception 3 to	The specific purpose of this change is to make a correction and
180.2(b)2Bi	clarification to the 2022 Energy Code language. This change seeks
	to clarify that the exception to the economizer requirement is
	applicable only to systems that are a split packaged AC with a
	cooling capacity lower than 54,000 Btu/h.
Exception 1 to	The purpose of this change is to delete HERS field verification and
180.2(b)2Biib	diagnostic testing and replace it with acceptance testing.
Section 180.2(b)2Biic	The purpose of this change is to delete HERS field verification and
and 180.2(b)2Biiib	diagnostic testing and replace it with acceptance testing.
Exception 1 to 3 to	Removal of the word 'exempted' and added 'not required' to the
180.2(b)2Biiib	Energy Code.
Exception to 180.2(b)5	The specific purpose of this change is to add an exception in the
	mechanical ventilation for indoor air quality section to specify
	dwelling unit air leakage test is not required for alterations.
Exception to	The specific purpose of this change is to add an exception to
180.2(b)5A	Section 180.2(b)5A that specifies new, or replacement ventilation
	systems shall be supply, balanced, or the existing ventilation type
	being replaced.

Section 180.2(b)5Bia	The specific purpose of this change is to add a requirement for
, ,	whole-dwelling unit ventilation strategy that specifies the altered
	ventilation system shall be supply, balanced, or the existing
	ventilation type being altered.
Table NA1-1	The purpose of this change is to delete field verification and
	diagnostic testing and replace it with acceptance testing for the
	nonresidential and multifamily common area duct leakage test.
	NA2 is reserved for ECC field verification and diagnostic tests and
	NA7 is reserved for acceptance tests. This language was moved
	from NA2.1 to NA7.5.3.
Section NA1.2.2	The purpose of this change is to conform with the new
	requirements restricting duct acceptance testing to certified
	Acceptance Test Technicians.
Section NA1.6.3	This purpose of this addition was to clarify existing procedures
	regarding the use of Certificates of Acceptance and ECC-Raters
	performing field verification and diagnostic testing.
Section NA1.9.1	The purpose of this change is to remove the condition that the
	enforcement agency must approve the alternative procedure for
	field verification by the ATT as specified in NA1.9.
Section NA2.1	The purpose of this change is to delete HERS field verification and
	diagnostic testing and replace it with acceptance testing for the
	nonresidential and multifamily common area duct leakage test.
	NA2 is henceforth reserved field verification and diagnostic tests
	and NA7 is reserved for acceptance tests. This language was
	moved entirely from NA2.1 to NA7.5.3.
Table NA2.2-1	The purpose of this change is to correct minor errors in
	referencing, spelling and grammar.
Section NA2.2.4.1.4 and	Updates website links for Kitchen Exhaust certifications.
NA2.2.4.1.5	
Section NA2.3.1	Added language for compliance with multifamily dwelling unit
	compartmentalization requirements.
Section NA2.3.3(3)	The specific purpose of this change is to add a multi-point
	airtightness test as specified in RESNET 380 Section 4.4.2.
Section NA2.3.4(1)	The specific purpose of this change is to add the word "if"
	determined by a one-point airtightness test as specified in RESNET
	380 Section 4.4.1 and will be adjusted using RESNET 380 4.5.1
	equation 5(a).
Section NA7.1	The specific purpose of this change is to clarify that the
	procedures of NA7.1 apply to all multifamily buildings, and not just
	high-rise residential buildings.
Section NA7.2	The purpose of this change is to delete field verification and
	diagnostic testing and replace it with acceptance testing for the
	nonresidential and multifamily duct leakage test.
Section NA7.5.1.1.1(f)	The specific purpose of this change is to allow a newly installed
	HVAC system to pre-purge 1 hour prior to occupation using the
	methods as provided in Section 120.1(d)2.
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Section NA7.5.1.2.1(c)	The specific purpose of this change is to allow a newly installed
	HVAC system to pre-purge 1 hour prior to occupation using the
	methods as provided in Section 120.1(d)2.
Section NA7.5.2.1(a)	The purpose of this change modifies language related to an
	unintended curtailment of compliance paths regarding thermostat
	locations and adds the appropriate Energy Code reference.
Section NA7.5.3	The purpose of this change is to delete HERS field verification and
	diagnostic testing and replace it with acceptance testing for the
	nonresidential and multifamily common area duct leakage test.
	This language was moved from NA2.1 to NA7.5.3.
Section NA7.5.4.1(a)	The purpose of this change is to correct minor errors in
	referencing, spelling, and grammar.
Section NA7.5.9.2(h)	The specific purpose of this change is to remove the word "either"
	to improve readability and clarify that there is only one option.
Section NA7.5.10.2	The changes to this section add step 3 for clarity of an action that
	already takes place in the field.
Section NA7.5.14.2	The changes in this Section add and modify language for clarity of
	an established acceptance test.
Section NA7.5.18, NA	These changes add requirements for construction inspection of
7.5.18.1, NA 7.5.18.2	blowdown controls and functional testing of overflow alarms, as
	applied to all open- and closed-circuit cooling towers.
Table NA-7	These changes add a table to specify blowdown parameters for
	cooling towers.
Section NA7.18.3	The purpose of this change is to update the reference to the most
	up-to-date test procedure for total duct leakage.

Table 2- List of Mechanical Acceptance Tests Required by the 2025 Energy Code

Mechanical Acceptance	Communication of Mandiglia at large
Compliance Document	Summary of Modifications
NRCA-MCH-02	No other significant changes.
NRCA-MCH-03	No other significant changes.
NRCA-MCH-04	No other significant changes.
NRCA-MCH-05	No other significant changes.
NRCA-MCH-06	No other significant changes.
NRCA-MCH-07	No other significant changes.
NRCA-MCH-08	No other significant changes.
NRCA-MCH-09	No other significant changes.
NRCA-MCH-10	No other significant changes.
NRCA-MCH-11	No other significant changes.
NRCA-MCH-12	No other significant changes.
NRCA-MCH-13	No other significant changes.
NRCA-MCH-14	No other significant changes.
NRCA-MCH-15	No other significant changes.
NRCA-MCH-16	No other significant changes.

NRCA-MCH-17	No other significant changes.
NRCA-MCH-18	No other significant changes.
NRCA-MCH-19	No other significant changes.
NRCA-MCH-20a	No other significant changes.
NRCA-MCH-20b	No other significant changes.
NRCA-MCH-20c	No other significant changes.
NRCA-MCH-20d	No other significant changes.
NRCA-MCH-21	No other significant changes.
NRCA-MCH-22	No other significant changes.
NRCA-MCH-23	No other significant changes.
NRCA-MCH-24	New acceptance test consistent with 2025 Energy Code Requirements.

All the certificates of acceptance for mechanical installations (NRCA-MCH compliance documents) were updated to Americans with Disabilities Act (ADA) requirements for accessibility. This includes removing all merged cells and standardizing table formatting and numbering. In addition to those changes, the forms have been modified to demonstrate compliance with the 2025 Energy Code requirements.







MEMORANDUM

FROM: Will Vicent, Deputy Director

SUBJECT: Basis for Finding that the action of approving the application submitted by Refrigeration

Service Engineers Society (RSES) is not a project and is exempt from the California

Environmental Quality Act under the Common-Sense Exemption.

DATE: November 12, 2025

I. CEQA

The California Environmental Quality Act (CEQA) (Pub. Resources Code, sections 21000 *et seq.*; see also CEQA Guidelines, Cal. Code Regs. (CCR), tit. 14, sections 15000 *et seq.*) requires that state agencies consider the environmental impact of their discretionary decisions. CEQA allows for certain projects to be exempted from its requirements. Of relevance here, and discussed further below, is the common-sense exemption (14 CCR section 15061(b)(3)).

II. ATTCP Approval [California Code of Regulations Title 24, Part 1]

The California Energy Commission (CEC) approves Acceptance Test Technician Certification Providers (ATTCPs) that train, certify, and oversee installation technicians performing acceptance tests for nonresidential and multifamily buildings. Acceptance testing ensures that installed equipment, controls, and systems operate as required by the California Building Energy Efficiency Standards (Energy Code).

Section 10-103.2(d)2 of the 2025 Energy Code (codified in Title 24, Part 1, of the California Code of Regulations), requires ATTCPs to submit an update report to address changes to the updated Energy Code; and update reports are subject to the application review and determination process specified in section 10-103.2(e) of the 2025 Energy Code.

RSES, an approved ATTCP, has applied to amend its approved application to comply with the 2025 Energy Code. RSES submitted subsequent application materials, with the final filing, including revisions, received on August 27, 2025.

III. The Proposed Action

As specified in section 10-103.2(e) of the 2025 Energy Code, staff reviewed and validated all information received in the update report and determined that RSES meets the criteria and procedures in section 10-103.2(c) for providing acceptance testing certification services. The executive director concurred with these conclusions and signed a recommendation to approve the RSES update report.

Based on the information submitted, staff analysis, and the executive director's recommendation, the CEC is considering approval of the update report, which would enable RSES to continue operating as an approved ATTCP in compliance with the 2025 Energy Code requirements.

IV. Approval of the ATTCP's Update Report is not a project

CEQA only applies to an action "that has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." (14 CCR section 15061(a).)

As discussed above, the CEC is approving the ATTCP to continue training, certifying, and overseeing installation technicians performing acceptance tests for non-residential and multifamily buildings. The approval process is consistent with objective standards as laid out in section 10-103.2. The updated application materials are largely administrative and have no potential to result in either a direct physical change or a reasonably foreseeable indirect physical change in the environment. Accordingly, approval of the RSES application does not constitute a project under CEQA.

V. If Approval of the Update Report were considered a project, it is exempt from CEQA under the Common-Sense Exemption

Approval of the RSES Update Report is exempt from CEQA under the Common-Sense Exemption. The commons-sense exemption states that, "Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." (14 CCR section 15061(b)(3).) A "significant effect on the environment" is defined as a "substantial, or a potentially substantial, adverse change" in the environment, and does not include an economic change by itself. (Pub. Resources Code, section 21068; 14 CCR section 15382.)

Changes to an ATTCP's update report and approval by the CEC are primarily administrative procedures to ensure acceptance testing accurately captures that the installed equipment, controls, and systems operate as required by the Energy Code. Ensuring consistency between ATTCPs and the updated Energy Code ensure that the environmental benefits of the Energy Code are achieved, As such, it can be seen with certainty that there is no possibility that the approval of the RSES Update Report may have a significant effect on the environment, thus making it subject to the Common-Sense Exemption in 14 CCR section 15061(b)(3).

VI. Conclusion

As shown above, it can be seen with reasonable certainty that the proposed approval of the RSES Update Report is not a project, as it is largely administrative and has no potential to result in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. If the RSES Update Report approval was to be considered a project subject to CEQA, it can be seen with certainty that the updates made to the applications would not have a significant effect on the environment; therefore, approval of the RSES Update Report is exempt from CEQA pursuant to the Common-Sense Exemption under 14 CCR section 15061(b)(3).