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**CEA Letter 3 of 3_Comments on 2025 BEES - Title 24 Parts 1 and
6_Express Terms_45-day Language**

CEA Comments Letter 3 of 3 - Supplementary Sections/Reports

Additional submitted attachment is included below.



May 13, 2024

California Energy Commission
Docket #24-BSTD-01
715 P Street
Sacramento, CA 95814

Re: Docket Number: 24-BSTD-01 – 2025 Building Energy Efficiency Standards, Title 24 Parts 1 and 6, Express Terms, 45-Day Language

CEA Comment Letter 3 of 3: Supplementary Sections/Reports

Dear CEC Commissioner McAllister and Staff,

Thank you for the opportunity to provide comments on the California Energy Commission's (CEC) 2025 Building Energy Efficiency Standards, Title 24 Parts 1 and 6, Express Terms, 45-Day Language (Energy Code). The California Energy Alliance (CEA) is a leading advocacy organization for California's energy stakeholders. Founded in 2016, CEA is a nonprofit, non-partisan alliance of over thirty-five business, government, academia, and NGO leaders working to bring beneficial, equitable change to energy standards, policies, and programs by developing consensus among diverse and engaged stakeholders. CEA envisions a healthy and equitable built environment that is powered by carbon-free, reliable energy sources.

CEA and its Members had the opportunity to work collaboratively with the CEC, Compliance & Enforcement Stakeholders, and the California Statewide Utility Codes and Standards Enhancement (Case) Team on improving and expanding upon the 2022 Building Energy Efficiency Standards. The joint work covered measures related to multilevel lighting controls, fault detection & diagnostics, controlled environment horticulture, multifamily compartmentalization, and residential HVAC performance. Additionally, CEA is pleased to see the CEC adopt many of the recommendations from the 2025 Title 24 Lighting Language Cleanup Initiative (Docket No: 22-BSTD-01, TN# 250676) that led to eliminating and cleaning up confusing language in the lighting and lighting controls sections of the Energy Code.

We applaud the CEC for listening to stakeholders and making the necessary updates to the Energy Code to continue reducing greenhouse gas emissions by maximizing efficiency. While the above recommendations were generally accepted, CEA would like



to comment on and address areas of concern in the 2025 Energy Code Express Terms, 45-Day Language. CEA is submitting (3) separate comment letters to address distinct areas of the Energy Code (Lighting/Electrical Sections, Mechanical Sections, and Supplementary Sections/Reports).

The following comments and recommendations (CEA Comment Letter 3 of 3) relate to “Supplementary Sections/Reports” in the Energy Code (TN# 255315-2) and in the 2025 Energy Code Accounting Methodology report (TN# 255318-1):

- 1) CEA encourages the CEC to reconsider comments submitted in the 2025 Title 24 Lighting Language Cleanup Initiative (Docket No: 22-BSTD-01, TN# 250676) report regarding useability and functionality of the Energy Code.**
 - a) The Energy Code Structure Subcommittee from the Title 24 Cleanup Initiative looked beyond the lighting sections of the code and focused recommendations on the entire framework of the Energy Code.
 - i) Create an online version of the Energy Code on the CEC’s website and add modern digital features in compliance with ADA requirements to improve accessibility and compliance.
 - ii) Reorganize Energy Code to improve accessibility and reduce lookup time.
 - (1) Move Tables to follow the language where it is first introduced.
 - (2) Capitalize (maybe Italicize) defined terms.
 - iii) Add periods after sub-section letters and numerals, for example, Section 170.2(c)4Niv would change to Section 170.2(c)4.N.iv. By updating the subsection naming convention, it will support moving the code to an online format and help with the incorporation of regulations into software.
 - iv) Update/add a better reference to Healthcare Facility(ies) throughout the Energy Code to properly reference this exempted space type to reduce ambiguity related to the code sections that reference healthcare facilities.
- 2) 2025 Energy Code, 45-Day Language - PDF Bookmark Issues**
 - i) It appears the CEC tried to bookmark more sections of the Energy Code to support easier navigation, however, the 45-Day Language PDF has bookmarks to countless subsections and lines in the Energy Code. This now makes the PDF bookmarks unnavigable.
 - ii) CEA recommends addressing these bookmark issues in the 15-Day Language.

3) Section 10-102 – Concerns with Naming of Energy Code Compliance Program

- a) The change from HERS to ENERGY CODE COMPLIANCE (ECC) PROGRAM is not appropriate and will create confusion. We understand the CEC’s motivations in moving away from Home Energy Rating System (HERS), but the new name is likely to cause confusion and in various ways undermine the State’s compliance improvement efforts.

Ensuring compliance with the energy code requires a wide swath of integrated initiatives, from performance models, to prescriptive compliance evaluations, to mandatory measure determinations, to AHJ enforcement, and integrated support from the HERS and Acceptance Testing industries. CEA members have seen entities characterize highly *non-compliant* building designs as fully compliant because the CBECC “compliance calculations” say that a building is “compliant”. But CBECC “compliance calculations” only assess a subset of code issues, and the “compliance calculation” name has thereby misled and confused many entities in assessing the broad scope of compliance efforts.

CEA believes this problem is likely to be repeated through the relabeling of the HERS program as the Energy Code Compliance (ECC) Program. For one, HERS generally does not impact nonresidential buildings, so the name should include a “Residential” clarification. There is also significant risk that stakeholders in the Title 24 compliance and enforcement ecosystem will see the rebranded ECC as the singular means to manage “Energy Code Compliance”. This will further deprioritize the critical role of AHJs in ensuring enforcement of the Standards, and the “ECC” name suggests that a positive result from an ECC rater ensures that a project is compliant. There are many ways in which this misunderstanding can undermine the CEC’s energy objectives, the most obvious of which are the numerous Title 24 elements that are required by code but do not have HERS requirements to assist with compliance.

b) One Recommendation for HERS Renaming

The CEC’s FV&DT programs mirror in many ways what are normally considered “Special Inspections” in standard AHJ operations (e.g. concrete PSI testing). For consistency, we might recommend using that term, as it will provide clarity to AHJ staff on the role played by the former HERS program in assisting with code enforcement.

CEA thinks that the CEC should determine for itself what is an appropriate name for the program, perhaps being a bit more verbose to help minimize confusion. Something like “Residential Energy Special Inspections for Designated Elements” (RESIDE) might work well.

- c) CEA highly recommends the CEC address this naming concern, and we suggest that the CEC implement a different name for all locations/references containing "ECC".

4) Section 100.0, Table 100.0-A

- a) Table 100.0-A in Section 100.00 does not reference Section 110.12 where it is applicable. Additionally, the Joint Appendices should be added to this table.
- b) CEA recommend the CEC add reference to Section 110.12 and Joint Appendices into Table 100.0-A where applicable.

5) Section 110.12(a)

- a) The mandatory requirements should include currently available OpenADR specifications that will be available to the market within the 2025 Energy Code Cycle. OpenADR 3.0 supports utilities, operators, aggregators, and customers to manage the growing range of distributed energy resources (DER) including renewables, energy storage, electric vehicle (EV) batteries and charging infrastructure, as well as demand response resources like commercial buildings or homes. OpenADR 3.0 device and equipment manufacturers will be able to add new functionality more easily into customer products, including smart thermostats, EV charging stations, energy storage, and control systems.
 - i) OpenADR3.0 Reference:
https://www.openadr.org/index.php?option=com_content&view=article&id=211:openadr-alliance-launches-openadr-3-0&catid=21:press-releases&Itemid=121
- b) CEA recommends adding a reference or clarification to “**Clause 11, Conformance**” in **Section 110.12(a)1A**.
- c) CEA also recommends clarifying who the certification is to be provided to by the Manufacturer in **Section 110.12(a)1B**. We believe this language should indicate the CEC.
- d) CEA recommends the underlined language be added to **Sections 110.12(a)1A and B**.

- A. A certified OpenADR 2.0a, or OpenADR 2.0b, or [OpenADR 3.0](#) Virtual End Node (VEN), as specified under Clause 11, Conformance, in the applicable OpenADR 2.0 or [OpenADR 3.0](#) Specification; or
- B. Certified by the manufacturer, [to the California Energy Commission](#), as being capable of responding to a demand response signal from a certified OpenADR 2.0b or [OpenADR 3.0](#) Virtual End Node by automatically implementing the control functions requested by the Virtual End Node for the equipment it controls.

6) Sections 160, 170, 180 - Noted Discrepancies in Multifamily Building Requirements

- a) CEA aims to develop and advocate for measure proposals for building energy code improvements that will deliver energy savings, reduce costs, increase code compliance, and move California closer to its energy and environmental goals. We feel Sections 160, 170, and 180 in the energy code regarding multifamily buildings create more complexity and repetition. This increasing complexity translates into more significant challenges understanding and implementing the code which will surely reduce code compliance. As noted by many CEA Members, there are discrepancies between information in the multifamily sections and other parts of the code from which it has been assembled. Additionally, this is not consistent with other standards such as ASHRAE 90.1 and IECC.
- b) We recognize and appreciate all the work the CEC has done to create this multifamily section, but the CEA requests this multifamily language be removed or refer to previous code sections where applicable. This will allow CEA and its Members to thoroughly review the changes and support in educating energy stakeholders on these updates to ensure code compliance.
- c) CEA would like to call out an example of inconsistency in the multifamily section with the nonresidential section for multilevel lighting controls.
 - i) 2025 Energy Code, 45-Day Language:
 - (1) **Section 130.1(b)** Multilevel lighting controls. The general lighting of any enclosed space with a size of area 100 square feet or larger and with a connected lighting load ~~that exceeds~~ greater than 0.5 watts per square foot shall provide with multilevel lighting controls ~~that allow the level of lighting to be adjusted up and down.~~ The multilevel lighting controls shall provide and enable continuous dimming from 100 percent to 10 percent or lower of lighting power. ~~The multi-level controls shall:~~
 - (2) **Section 160.5(b)4B.** Multi-level lighting controls. The general lighting of any enclosed ~~area~~ space 100 square feet or larger with a connected lighting load that ~~exceeds~~ greater than 0.5 watts per square foot shall provide with multi-level lighting controls. The multilevel lighting controls shall provide and enable continuous dimming from 100

percent to 10 percent or lower of lighting power that allow the level of lighting to be adjusted up and down to achieve illuminance uniformity. The multi-level controls shall:

- ii) The language is inconsistent between the nonresidential section 130.1(b) and multifamily section 160.5(b)4B.
 - (1) To start, there is use of a hyphen in “multi-level” in the multifamily section where there isn’t one in 130.1(b) or the rest of the Energy Code. This may seem minor but can be troubling when searching for words spelled a certain way in the PDF document.
 - (2) Additionally, language in the two sections were not similarly updated between the 2022 version and 2025 version. For example, “enclosed” has a strikeout in one section and remains in the other, and “to achieve illuminance uniformity” was added to the multifamily section and not the nonresidential section.
 - (3) CEA recognizes the difficulties in updating the entire Energy code, but this goes to prove the issue of keeping consistency with the residential/nonresidential sections and the multifamily sections. Again, this is just one section we happened to catch the discrepancy in, but we are sure there are more to be found in other multifamily sections.

7) Acknowledging Compliance Shortfalls in the “2025 Energy Code Accounting Methodology” and Related Form 399 Documentation

- a) The CEA continues to be concerned with the realities of Title 24 implementation in the field. Compliance and enforcement challenges have created a gap between the theoretical consumer benefits and the reality of what actually gets delivered to Californians. The consequences of this gap are particularly acute as California’s utility rates continue to soar.

This subset of comments does not involve recommended code changes. Nonetheless, CEA strongly recommends that the CEC’s supporting documentation tied to the Title 24 2025 Energy Code update reflect a more realistic understanding of the gaps between the theory of 100% code implementation and the realities on the ground. It is CEA’s observation that only when the entities responsible for code adoption properly acknowledge compliance gaps will agencies such as the CEC start to give enforcement challenges the attention that they deserve.

The Acceptance Testing industry that was created by the CEC to help with nonresidential code compliance is crumbling due to degrading Acceptance Testing implementation rates. Building departments have been telling the CEC for over a decade that the Standards are a challenge to enforce given the growing complexity of the regulations. Adding more complexity via Title 24 2025 Energy Code is only going to worsen this condition, impacting the Acceptance Testing industry, which will continue to bleed jobs.



For the CEC's accounting and Form 399 estimates to be reasonably accurate, CEA suggests that the CEC implement a best-estimate of likely compliance shortfalls for the new measures, adjusting the savings projections accordingly. This applies to electricity savings, demand reductions, natural gas savings, and pollutants such as nitrous oxide. The derating due to noncompliance should also be extended to the calculation of net consumer benefits in terms of dollars saved.

A 20% derating across the board for new construction and 30% for alterations and changeouts might be good starting places.

As noted above, compliance issues tied to enforcement challenges are costing California valuable jobs amongst well-trained, highly committed energy efficiency professionals. The CEC should acknowledge those ongoing impacts in its Form 399 employment analysis. Those ongoing job losses are likely to be exacerbated by the added code complexity. (The CEA sees the value in many of the new code measures, but ongoing growth in code complexity has real costs to California that should be acknowledged.)

CEA thanks the CEC for the opportunity to submit these comments, and we look forward to answering any questions or comments regarding our recommendations to the 2025 Energy Code Express Terms, 45-Day Language.

Sincerely,

California Energy Alliance
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