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| Description: | Final Statement of Reasons for the proposed changes to the 2025 Green Building Standards Code, Title 24, Part 11 (CALGreen). |
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CALIFORNIA ENERGY COMMISSION

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CEC-057 (Revised 1/21)

**FINAL STATEMENT OF REASONS****PROPOSED REVISIONS TO THE VOLUNTARY
BUILDING ENERGY EFFICIENCY STANDARDS
2025 CALIFORNIA GREEN BUILDING STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11,
APPENDICES A4.2 & A5.2**

California Energy Commission
[CEC 02/24]

UPDATES TO THE INITIAL STATEMENT OF REASONS:

In response to public comment the following modifications were made to the regulation text:

Section: 202

Specific Purpose: The specific purpose of these changes is to repeal definitions related to Energy Design Rating (EDR) and Time Dependent Valuation (TDV).

Necessity: These changes are necessary because Energy Design Rating (EDR) and Time Dependent Valuation (TDV) are no longer being used for establishing energy budgets in Title 24, Part 6 (California Energy Code). The proposed change is necessary to ensure and improve the general clarity and internal consistency with the Green Building Standards Code and the California Energy Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: 202

Specific Purpose: The specific purpose of the change is to amend the definition of Energy Budget to remove Time Dependent Valuation and include reference to Long-term System Cost and Source Energy.

Necessity: These changes are necessary to ensure that terms used within the regulations are consistent and will have clear and unambiguous meaning to readers, including the public, and particularly to the person and organizations affected by these regulations, consistent with California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: 202

Specific Purpose: The specific purpose of these changes is to add definitions for Long-term System Cost (LSC); Recovered Energy; Recovered Energy, On-Site; and Solar Pool Heating System.

Necessity: These changes are necessary to ensure consistency with how the terms are

defined in Title 24, Part 6 and will ensure that terms used within the regulations will have clear and unambiguous meaning to readers, including the public, and particularly to the person and organizations affected by these regulations, consistent with California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A4.203.1.2.5

Specific Purpose: The specific purpose of this change is to remove climate zones 1, 3, 5, and 16 from the maximum Solar Heat Gain Co-efficient (SHGC) requirements. Additional changes were made for clarity.

Necessity: The proposed change is reasonably necessary to ensure reliable reductions in wasteful, uneconomic, inefficient, or unnecessary consumption of energy as directed by California Public Resources Code Sections 25213 and 25402. In climate zones 1, 3, 5, and 16, it has been shown to save more energy to install vertical fenestration products with higher SHGCs. The word “maximum” was also added to clarify that the SHGC requirements for the associated climate zones are maximum values, not specific required values. This change ensures clarity consistent with California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: Exception to Section A4.203.1.2.5

Specific Purpose: The specific purpose of this change is to explicitly provide exceptions for climate zones 1, 3, 5, and 16 from the maximum SHGC requirements.

Necessity: The proposed change is reasonably necessary to ensure reliable reductions in wasteful, uneconomic, inefficient, or unnecessary consumption of energy as directed by California Public Resources Code Sections 25213 and 25402. In climate zones 1, 3, 5, and 16, it has been shown to save more energy to install vertical fenestration products with higher SHGCs.

Section: A4.203.1.4

Specific Purpose: The specific purpose of this change is to narrow the applicability of the code language and make it clear that this requirement only applies to multifamily buildings, hotels, and motels because these types of luminaires are not typically used in single-family residential buildings.

Necessity: The proposed change is reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A4.203.1.4.1 (old)

Specific Purpose: The specific purpose of this change is to delete the proposed requirements for outdoor building-mounted luminaires illuminating walls and signs.

Necessity: The proposed change is necessary to delete the proposed regulations for outdoor building-mounted luminaires illuminating walls and signs in response to concerns regarding enforceability.

Section: A4.203.1.4.1 (new)

Specific Purpose: The specific purpose of this change is to change "should" to "shall" to establish that the measure is required, rather than permissive.

Necessity: The proposed change is reasonably necessary to ensure reliable reductions in wasteful, uneconomic, inefficient, or unnecessary consumption of energy as directed by California Public Resources Code Sections 25213 and 25402.

Section: Exception to Section A4.203.1.4

Specific Purpose: The specific purpose of this change is (1) to add the descriptive text about the outdoor lighting for the Exceptions from Section 160.5(c)1 and (2) to add exception for lighting for one- and two-family dwellings and townhouses.

Necessity: (1) The proposed change to list out the Exceptions from Section 160.5(c)1 is necessary to explicitly specify the lighting being excepted to ensure consistency with the California Energy Code.

(2) The proposed change to add an exception for one- and two-family dwellings and townhouses is necessary to clarify that the proposed regulations are not intended to apply to one- and two-family dwellings and townhouses because these outdoor luminaires are not typically used in those building types.

All the proposed changes aforementioned are reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A4.204.1.1

Specific Purpose: The specific purpose of this change is to clarify the applicability of the code language and revise the section name to add language establishing that this requirement only applies to existing single-family dwellings.

Necessity: The proposed change is reasonably necessary because the measure was not evaluated for multifamily and nonresidential buildings and, therefore, it has not been demonstrated in the rulemaking record to be feasible or cost-effective.

Section: A4.204.1.1(a)

Specific Purpose: The specific purpose of this change is to make some minor grammatical changes to improve the readability of the code language and ensure the language is not permissive.

Necessity: The proposed change is reasonably necessary to ensure reliable reductions in wasteful, uneconomic, inefficient, or unnecessary consumption of energy as directed by California Public Resources Code Sections 25213 and 25402. The proposed change is also reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A4.204.1.1(b)

Specific Purpose: The specific purpose of this change is to make some minor grammatical changes to improve the readability of the code language and clarify that the requirement is intended to be mandatory.

Necessity: The proposed change is reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: Exception 1 to Section A4.204.1.1

Specific Purpose: The specific purpose of this change is to make some minor grammatical changes to improve the readability of the code language.

Necessity: The proposed change is reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A4.204.1.2

Specific Purpose: The specific purpose of this change is to revise the applicability of the code language and revise the section name to make it clear that this requirement only applies to pool and/or spa heating in existing multifamily buildings.

Necessity: The proposed change is reasonably necessary to limit the applicability of the measure, in response to stakeholder feedback, and improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16. The measure was only evaluated for existing multifamily buildings; therefore, it is necessary to ensure the language excludes other building types that have not been demonstrated in the rulemaking record to be feasible or cost-effective for this specific measure.

Section: A4.204.1.2

Specific Purpose: The specific purpose of this change is to update the language to allow for the user to choose any one of the five options for Heating Source Sizing.

Necessity: The proposed change is reasonably necessary to reference the added compliance options and ensure the improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16. The added options allow for greater compliance flexibility.

Section: A4.204.1.2, Option 2

Specific Purpose: The specific purpose of this change is to make grammatical changes, to correct an internal reference, and to update the term "backup" to "supplementary" to improve the readability of the code language.

Necessity: The proposed change is necessary to ensure and improve the general clarity and internal consistency with the Energy Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A4.204.1.2, Option 3

Specific Purpose: The specific purpose of this change is to change the period to a semicolon and add the word "or" to accommodate Options #4 & #5.

Necessity: The proposed change is reasonably necessary to improve the general clarity

and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A4.204.1.2, Option 4

Specific Purpose: The specific purpose of this change is to add a prescriptive option for a combination of a solar pool heating system and heat pump pool heater without any additional supplementary heater.

Necessity: This exception is necessary to align with changes in Title 24, Part 6. This option provides additional flexibility for designers to meet the requirements of A4.204.1.2.

Section: A4.204.1.2, Option 5

Specific Purpose: The specific purpose of this change is to add a prescriptive option for pool heating systems that use no more energy than the systems specified in A4.204.1.2, as determined by the Energy Commission Executive Director.

Necessity: This exception is necessary to align with changes in Title 24, Part 6. This option provides additional flexibility for designers to meet the requirements of A4.204.1.2.

Section: Exception 1 to Section A4.204.1.2

Specific Purpose: The specific purpose of this change is to reference the specific section of the Appliance Efficiency Regulations that applies - 20 CCR, Section 1605.3(g)(7).

Necessity: The proposed change is reasonably necessary to ensure and improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: Exception 2 to Section A4.204.1.2

Specific Purpose: The specific purpose of this change is to change "backup" to "supplementary" to improve the readability of the code language.

Necessity: The proposed change is reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: Exception 3 to Section A204.1.2

Specific Purpose: The specific purpose of this change is to add an exception for existing buildings with inadequate Solar Access Roof Area (SARA), as specified in Title 24, Part 6, Section 170.2(f).

Necessity: This exception is necessary to align with changes in Part 6. Based on stakeholder feedback this exception is necessary in situations where the existing roof cannot support the solar pool heater requirement.

Section: Exception 4 to Section A204.1.2

Specific Purpose: The specific purpose of this change is to add an exception for heating systems that are used exclusively for permanent spa applications in existing buildings with gas availability.

Necessity: This exception is necessary to align with changes in Part 6 and to respond to stakeholder feedback. Based on stakeholder feedback, the typical user behavior and expectation for permanent spa requires rapid heating in the evening. It is more difficult to align the energy efficiency benefit of the requirements in A4.204.1.2 with the typical usage pattern for permanent spa only systems.

Section: Exception 1 to Section A5.203.1.1.1

Specific Purpose: The specific purpose of this change is to correct the Table reference - the correct table to reference is Table 140.7-B.

Necessity: The proposed change is reasonably necessary to ensure and improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A5.203.1.1.1.2 (old)

Specific Purpose: The specific purpose of this change is to delete the previously proposed requirements for outdoor building-mounted luminaires illuminating walls and signs.

Necessity: The proposed change is necessary to retract the proposed regulations for outdoor building-mounted luminaires illuminating walls and signs in response to concerns regarding enforceability.

Section: A5.203.1.1.1.2 (new)

Specific Purpose: The specific purpose of these changes is to renumber the requirement due to the deletion of A5.203.1.1.1.2, and to change "should" to "shall" to clarify that the measure is intended to be mandatory where adopted.

Necessity: The proposed change is reasonably necessary to ensure and improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: Exceptions to Section A5.203.1.1.2

Specific Purpose: The specific purpose of this change is to add the descriptive text about the outdoor lighting for the Exceptions from Title 24, Part 6, Section 130.2(b).

Necessity: The proposed change to list the Exceptions from Section 130.2(b) is necessary to explicitly specify the lighting being excepted and this is reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A5.204.1.1

Specific Purpose: The specific purpose of this change is to narrow the applicability of the code language and revise the section name to add language establishing that this requirement only applies to pool and/or spa heating in existing nonresidential buildings.

Necessity: The proposed change is reasonably necessary to align the language with changes to section A4.204.1.2 to ensure the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section

11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A5.204.1.1

Specific Purpose: The specific purpose of this change is to update the language to allow for the user to choose any one of the five options for Heating Source Sizing.

Necessity: The proposed change is reasonably necessary to reference the added compliance options and ensure and improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16. The added options allow for greater compliance flexibility.

Section: A5.204.1.1, Option 2

Specific Purpose: The specific purpose of this change is to make a grammatical change, to correct an internal reference, and to update the term "backup" to "supplementary" to improve the readability of the code language.

Necessity: The proposed change is necessary to ensure and improve the general clarity and internal consistency with the Energy Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A5.204.1.1, Option 3

Specific Purpose: The specific purpose of this change is to change the period to a semicolon and add the word "or" to accommodate Options #4 & #5.

Necessity: The proposed change is reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A5.204.1.1, Option 4

Specific Purpose: The specific purpose of this change is to add a prescriptive option for a combination of a solar pool heating system and heat pump pool heater without any additional supplementary heater.

Necessity: This exception is necessary to align with changes in Title 24, Part 6. This option provides additional flexibility for designers to meet the requirements of A5.204.1.1.

Section: A5.204.1.1, Option 5

Specific Purpose: The specific purpose of this change is to add a prescriptive option for pool heating systems that use no more energy than the systems specified in A4.204.1.2, as determined by the Energy Commission Executive Director.

Necessity: This exception is necessary to align with changes in Title 24, Part 6. This option provides additional flexibility for designers to meet the requirements of A5.204.1.1.

Section: A5.204.1.1, Exception 1

Specific Purpose: The specific purpose of this change is to reference the specific section of the Appliance Efficiency Regulations that applies - 20 CCR, Section 1605.3(g)(7).

Necessity: The proposed change is reasonably necessary to ensure and improve the general clarity and internal consistency of the Green Building Standards Code, as directed

by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A5.204.1.1, Exception 2

Specific Purpose: The specific purpose of this change is to change "backup" to "supplementary" to improve the readability of the code language.

Necessity: The proposed change is reasonably necessary to improve the general clarity and internal consistency of the Green Building Standards Code, as directed by California Government Code, Section 11349 and 11349.1, and California Code of Regulations, Title 1, Section 16.

Section: A5.204.1.1, Exception 3

Specific Purpose: The specific purpose of this change is to add an exception for existing buildings with inadequate Solar Access Roof Area (SARA), as specified in Title 24, Part 6, Section 170.2(f).

Necessity: This exception is necessary to align with changes in Part 6. Based on stakeholder feedback this exception is necessary in situations where the existing roof cannot support the solar pool heater requirement.

Section: A5.204.1.1, Exception 4

Specific Purpose: The specific purpose of this change is to add an exception for heating systems that are used exclusively for permanent spa applications in existing buildings with gas availability.

Necessity: This exception is necessary to align with changes in Part 6 and respond to stakeholder feedback. Based on stakeholder feedback, the typical user behavior and expectation for permanent spa requires rapid heating in the evening. It is more difficult to align the energy efficiency benefit of the requirements in A5.204.1.1 with the typical usage pattern for permanent spa only systems.

MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS:

The California Energy Commission (CEC) has determined that this action will not result in a local mandate on local agencies or school districts.

OBJECTIONS OR RECOMMENDATIONS MADE REGARDING THE PROPOSED REGULATION(S):

All responses to public comments, including acceptance of recommendations and justification when recommendations were not accepted, are hereby incorporated by reference and included in the final rulemaking file.

DETERMINATION OF ALTERNATIVES CONSIDERED AND EFFECT ON PRIVATE PERSONS:

The CEC determined pursuant to Government Code Section 11346.9(a)(4) that no alternative before it would be more effective in carrying out the purpose for which this action is proposed; would be as effective or less burdensome to affected persons than the

adoption of the proposed regulation; or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

Except as discussed in the summary and response to comments, no alternatives were recommended.

REJECTED PROPOSED ALTERNATIVE THAT WOULD LESSEN THE ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES:

The CEC determined pursuant to Government Code Section 11346.9(a)(5) that the adopted regulations will not have a significant adverse economic impact on small business and no alternatives were proposed that would lessen any adverse economic impact on small business except as discussed in the summary and response to comments.