DOCKETED	
Docket Number:	25-BSTD-03
Project Title:	2028 Energy Code Pre-Rulemaking.
TN #:	273373
Document Title:	Travis Wade Comments - 2028 Code Reference Corrections
Description:	N/A
Filer:	System
Organization:	Travis Wade
Submitter Role:	Public
Submission Date:	11/4/2026 5:10:22 PM
Docketed Date:	11/5/2026

Comment Received From: Travis Wade
Submitted On: 11/4/2026
Docket Number: 25-BSTD-03

2028 Code Reference Corrections

References corrections needed

Additional submitted attachment is included below.

2028 Energy Code reference corrections

Supplemental comments on the October 12 pre-rulemaking drafts

November 4, 2026

California Energy Commission
Docket 25-BSTD-03 | 2028 Energy Code Pre-Rulemaking

Dear Commissioners and Energy Code staff:

Please correct the section references, table references, wording and units identified in the attached 28 numbered findings before advancing the formal 2028 Energy Code proposal.

The comments use the October 12, 2026 Energy Code draft, TN 273088, and Reference Appendices draft, TN 273089. These are proposed provisions. The attachment preserves the CEC strikeouts and additions and links each excerpt to its official source.

Items 8, 12, 19 and 25 expressly distinguish requests for precision or confirmation from established reference corrections. This submission addresses the 28 listed items; it does not claim a complete manual audit or final resolution of the underlying policy proposals.

Respectfully submitted,

Travis Wade
Wade Energy



Requested corrections and source evidence

Each numbered page ends with the requested revision. Click a topic to open its page or a source caption to open the official PDF.

2028 Energy Code draft TN 273088

2028 Reference Appendices draft TN 273089

01 Energy budget section reference
02 Roof alteration standard design references
03 Added nonresidential window tables
04 Roof alteration product reference
05 Fire rated door exception reference
06 Added multifamily skylight reference
07 Demand control ventilation device reference
08 Group R demand control ventilation device reference
09 Group R carbon dioxide sensor reference
10 Parking garage daylight shutoff
11 Solar roof capacity units
12 Multifamily solar readiness references
13 Pool alteration solar roof reference
14 Pool alteration hardship references
15 Indoor growing sizing appendix
16 Indoor growing control reference
17 Commissioning scope references
18 Commissioning construction document reference
19 Commissioning plan contents and references
20 Hot water temperature reference
21 Insulation certification reference
22 Smart thermostat code references
23 Economizer fault detection references
24 High efficacy lighting reference
25 Solar pool collector table reference
26 Guideline 36 programming reference
27 Air filter verification reference
28 Indoor growing load calculation inputs

01 Energy budget section reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 92

B. The modeled energy budgets of the standard design building and the energy consumption of the proposed building are described in Title 24 Part 6, Sections~~~~ 120.5.2 [140.1(a), 150.1(b)1, and 170.1(a)]. These requirements ensure that all

Citation used 120.5.2

No active Part 6 heading numbered 120.5.2 was found in this release.

Contents show 102.5.2, not 120.5.2 | 2028 Energy Code | TN 273088 | PDF page 126

102.5 *[Section 100.2]* Performance approach..... 33

102.5.1 *[Section 100.2]* Calculation of energy budgets. 33

102.5.1.1 Long-term System Cost (LSC)..... 33

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102.5.2 *[Section 140.1(a), 150.1(b)1, 170.1(a)]* Newly constructed buildings. 34

102.5.3 *[Section 141.0(a)2, 150.2(a)2, 180.1(b)]* Additions in existing buildings..... 34

Suggested destination 102.5.2

102.5.2 Newly constructed buildings | 2028 Energy Code | TN 273088 | PDF page 160

102.5.2 *[Section 140.1(a), 150.1(b)1, 170.1(a)]* **Newly constructed buildings.**

The *energy budget* is expressed in terms of *L~~l~~ong-term S~~s~~ystem C~~c~~ost (LSC)* and *S~~s~~ource E~~e~~nergy*.

Long-term system cost (LSC). The *LSC energy budget* is determined by applying the mandatory and prescriptive requirements of the standard design to the *proposed design building* and has two components, the Efficiency *LSC* and the Total *LSC*.

Requested revision

Replace 120.5.2 with 102.5.2 in Section 10-109(c)1B.

02 Roof alteration standard design references

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 163

ALTERED COMPONENT	STANDARD DESIGN WITHOUT THIRD PARTY VERIFICATION OF EXISTING CONDITIONS SHALL BE BASED ON	STANDARD DESIGN WITH THIRD PARTY VERIFICATION OF EXISTING CONDITIONS SHALL BE BASED ON
Roof/Ceiling Insulation, Wall Insulation, and Floor/Soffit Insulation	The requirements of Section 301.5.2.1, 401.5.2.1 *[Section 141.0(b)1]* and Section 301.5.2.2.3 *[Section 141.0(b)2Bii]*.	The requirements of 301.5.2.1, 401.5.2.1 *[Section 141.0(b)1]* and Section 301.5.2.2.3 *[Section 141.0(b)2Bii]*.

2028 Energy Code | TN 273088 | PDF page 163

Roofing Products	The requirements of Sections 301.5.2.2.2, 301.5.2.2.3 *[Section 141.0(b)2B]*.	The requirements of Sections 301.5.2.2.2, 301.5.2.2.3 *[Section 141.0(b)2B]*.

Where the current numbers lead

301.5.2.2.2 Nonresidential fenestration | 2028 Energy Code | TN 273088 | PDF page 364

301.5.2.2.2 *[Section 141.0(b)2A]* **Nonresidential Fenestration.**

For nonresidential *use designations*, *fenestration alterations* other than *repairs* shall meet the requirements below:

301.5.2.2.3 Roofing products | 2028 Energy Code | TN 273088 | PDF page 366

301.5.2.2.~~3~~2 *[Section 141.0(b)2Bi]* **Roofing products.**

Existing *roofs* of a *nonresidential* or *hotel/motel* ~~*building*~~ *use designations* being replaced, recovered or recoated, as defined in Section 201 *[Section 100.1(b)]* and Title 24, Part 2, Chapter 2, shall meet the requirements of Section 300.3.7 *[Section 110.8(i)]*. When a *roof* with more than 50 percent of the *roof* area or more than 2,000 square feet of *roof*, whichever is less, is being altered, *roofing products* shall comply with requirements in Sections 301.3.1.1 and 301.3.1.2 *[Section 140.3(a)1A]*.

Additional destination needed 301.5.2.2.4

301.5.2.2.4 Roof and ceiling insulation | 2028 Energy Code | TN 273088 | PDF page 367

301.5.2.2.~~4~~3 *[Section 141.0(b)2Bii]* **Roof/ceiling insulation.**

When a *low-sloped roof* with more than 50 percent of the *roof* area or more than 2,000 square feet of *roof*, whichever is less, is being altered, the area of the *roof recover* or *roof replacement* shall be insulated to the level specified in Table 301.5-~~C~~(4~~3~~) *[Table 141.0-C]*.

Requested revision

In both standard-design columns of Table 102.5(1), change the insulation-row reference from 301.5.2.2.3 to 301.5.2.2.4; change the roofing-products references from 301.5.2.2.2 and .3 to 301.5.2.2.3 and .4.

03 Added nonresidential window tables

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 364

301.5.2.2.2.3 Added Fenestration

Added *vertical fenestration alterations* shall meet the requirements in Table 301.3(4) in Section 301.3.9.

Exception to Section 301.5.2.2.2.3: In an *alteration*, where 50 square feet or less of *vertical fenestration* is added, *RSHGC* and *VT* requirements of Table 301.3(3) shall not apply.

Cited table 301.3(4)

Table 301.3(4) Hotel and motel guest rooms | 2028 Energy Code | TN 273088 | PDF page 350

(CONTINUED): TABLE 301.3(4)~~-D~~ [TABLE 140.3-C] – PRESCRIPTIVE ENVELOPE -CRITERIA FOR GUEST ROOMS OF HOTEL/MOTEL USE DESIGNATIONS~~BUILDINGS~~

***FENESTRATION* – VERTICAL (ALL *CLIMATE ZONES*) (AREA-WEIGHTED PERFORMANCE RATING)**	***FIXED WINDOW***	**OPERABLE *WINDOW***	***CURTAIN WALL* AND *STOREFRONT***	**GLAZED DOORS[2]**
Max *U-factor*	0.36	0.46	0.41	0.45
Max *RSHGC*	0.25	0.22	0.26	0.23
Min *VT*	0.42	0.32	0.46	0.17
Maximum *WWR* %	40%	40%	40%	40%

Suggested tables 301.3(3) and 301.3(5)

Table 301.3(3) Nonresidential use designations | 2028 Energy Code | TN 273088 | PDF page 343

(CONTINUED): TABLE 301.3(3)~~-C~~ [TABLE 140.3-B] – PRESCRIPTIVE ENVELOPE CRITERIA FOR NONRESIDENTIAL ~~BUILDINGS~~ USE DESIGNATIONS (INCLUDING DOORS FOR RELOCATABLE PUBLIC SCHOOL BUILDINGS WHERE MANUFACTURER CERTIFIES USE ONLY IN SPECIFIC CLIMATE ZONE; ~~NOT INCLUDING HIGH-RISE RESIDENTIAL BUILDINGS AND GUEST ROOMS OF HOTEL/MOTEL BUILDINGS~~)

***Envelope* Feature**	**CZ 1**	**CZ 2**	**CZ 3**	**CZ 4**	**CZ 5**	**CZ 6**	**CZ 7**	**CZ 8**	**CZ 9**	**CZ 10**	**CZ 11**	**CZ 12**	**CZ 13**	**CZ 14**	**CZ 15**	**CZ 16**

Table 301.3(5) Relocatable public school buildings | 2028 Energy Code | TN 273088 | PDF page 353

(CONTINUED): TABLE 301.3(5) – PRESCRIPTIVE ENVELOPE CRITERIA FOR RELOCATABLE PUBLIC SCHOOL BUILDINGS (WHERE MANUFACTURER CERTIFIES USE IN ALL CLIMATE ZONES OR IN A SPECIFIC CLIMATE ZONE-GROUP)

***FENESTRATION* – VERTICAL (ALL *CLIMATE ZONES*) (AREA-WEIGHTED PERFORMANCE RATING)**	**FOR USE IN ALL *CLIMATE ZONES***	**GROUP A** (CZ 1, **16**)	**GROUP B** (CZ 2, 3, **4**, 5)	**GROUP C** (CZ 6, 7, 8, 9, **10**)	**GROUP D** (11, 12, 13, **14**)	**GROUP E** (CZ **15**)
Fixed Window (Max *U-factor*)	0.34	0.36	0.36	0.36	0.34	0.34
Fixed Window (Max *RSHGC*)	0.22	0.25	0.25	0.25	0.22	0.22
Fixed Window (Min *VT*)	0.42	0.42	0.42	0.42	0.42	0.42

Requested revision

In the added nonresidential vertical-fenestration provision, replace Table 301.3(4) with Table 301.3(3) or Table 301.3(5), as applicable. Align the small-area exception with those applicable tables.

04 Roof alteration product reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 366

Existing *roofs* of a *nonresidential* or *hotel/motel* ~~*building*~~ *use designations* being replaced, recovered or recoated, as defined in Section 201 *[Section 100.1(b)]* and Title 24, Part 2, Chapter 2, shall meet the requirements of Section 300.3.7 *[Section 110.8(i)]*. When a *roof* with more than 50 percent of the *roof* area or more than 2,000 square feet of *roof*, whichever is less, is being altered, *roofing products* shall comply with requirements in Sections 301.3.1.1 and 301.3.1.2 *[Section 140.3(a)1A]*.

Old number and suggested destination on the same heading

300.4.1 Roofing products solar reflectance and thermal emittance | 2028 Energy Code | TN 273088 | PDF page 319

300.4 *[Section 110.8]* **Roofing products**

300.~~3.7~~4.1 *[Section 110.8(i)]* ~~**Roofing products s**~~**Solar reflectance and thermal emittance.**

300.~~3.7~~4.1.1 *[Section 110.8(i)1]* **Product certification and labeling.**

In order to meet the requirements of Section 102.5 *[Section 140.1]*, Section 102.4 *[Section 140.2]*, Section 301.3.1 *[Section 140.3(a)1]*, Sections 301.5.2.2.3 and 301.5.2.2.4 *[Section 141.0(b)2B]*, Section 302.3.7 *[Section 150.1(c)11]*, or Section 302.5.2.2.3 *[Section 150.2(b)1I]*, a *roofing product's thermal emittance* and an aged *solar reflectance* shall be certified and labeled according to the requirements of Sections 300.4.1.1.1 through 300.4.1.1.4 *[Section 10-113]*.

Requested revision

Replace 300.3.7 with 300.4.1 in the nonresidential and multifamily roof-alteration product references.

05 Fire rated door exception reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 398

> **Exception to Section 303.3.1.6:** Swinging *doors* that are required to have fire protection are not required to meet the ~~applicable~~ *door* value shown in Table 303.3~~-A~~(1) *[Table 170.2-A]*.

Cited section 303.3.1.6

303.3.1.6 Floors | 2028 Energy Code | TN 273088 | PDF page 398

> **303.3.1.6~~7~~** *[Section 170.2(a)5]* **Floors.**
>
> Floors shall meet the following requirements:

Suggested section 303.3.1.5

303.3.1.5 Exterior doors | 2028 Energy Code | TN 273088 | PDF page 398

> **303.3.1.5~~6~~** *[Section 170.2(a)4]* **Exterior doors, excluding Glazed Doors.**
>
> All exterior *doors*, excluding *glazed doors*, that separate *conditioned space* from *unconditioned space* or from ambient air shall have a *U-factor* not greater than ~~the applicable value~~shown in Table 303.3~~-A~~(1) *[Table 170.2-A]*. *Glazed doors* must comply with the requirements of Section 303.3.1.3 *[Section 170.2(a)3A]*.

Requested revision

Change the fire-protection swinging-door exception heading from Exception to Section 303.3.1.6 to Exception to Section 303.3.1.5.

06 Added multifamily skylight reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 414

303.5.2.2.3.2- *Alterations* that add *vertical fenestration* and *skylight area*. Shall meet the total *fenestration area* requirements of Sections 303.3.1.3 and 303.3.1.5 *[Section 170.2(a)3]* and the *U-factor*, *RSHGC* and *VT* requirements of Table 303.5~~-B~~(2) *[Table 180.2-B]*.

2028 Energy Code | TN 273088 | PDF page 414

Exception 2 to Section 303.5.2.2.3.2: *Alterations* that add up to 16 square feet of new *skylight area* per *dwelling unit* with a maximum *U-factor* of 0.55 and a maximum *RSHGC* of 0.30 shall not be required to meet the total *fenestration area* requirements of Section 303.3.1.5 *[Section 170.2(a)3]*.

Cited section 303.3.1.5

303.3.1.5 Exterior doors | 2028 Energy Code | TN 273088 | PDF page 398

303.3.1.5~~6~~ *[Section 170.2(a)4]* **Exterior doors, excluding Glazed Doors.**

All exterior *doors*, excluding *glazed doors*, that separate *conditioned space* from *unconditioned space* or from ambient air shall have a *U-factor* not greater than ~~the applicable value~~shown in Table 303.3~~-A~~(1) *[Table 170.2-A]*. *Glazed doors* must comply with the requirements of Section 303.3.1.3 *[Section 170.2(a)3A]*.

Suggested section 303.3.1.4

303.3.1.4 Skylights and skylight area | 2028 Energy Code | TN 273088 | PDF page 397

303.3.1.4~~5~~ *[Section 170.2(a)3B]* **Skylights.**

303.3.1.4~~5~~.1 *[Section 170.2(a)3Bi]* **Skylight area.**

The skylight roof ratio (SRR) ~~*Skylights*~~ shall ~~have~~ be an area no greater than 5 percent. ~~of the *gross exterior roof area Skylight Roof Ratio (SRR).*~~

Exception to Section 303.3.1.4~~5~~.1: *Buildings* with an *atrium* over 55 feet high shall have a *skylight area* no greater than 10 percent of the *gross exterior roof area*.

Requested revision

Replace 303.3.1.5 with 303.3.1.4 in the added-skylight area requirement and Exception 2 to Section 303.5.2.2.3.2.

07 Demand control ventilation device reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 480

> Demand ventilation controls complying with Section 401.2.1.2.5 *[Section 120.1(d)4]* are required as follows:

Cited number 401.2.1.2.5

Former .2.5 heading now .2.3.4 Occupied standby zone controls | 2028 Energy Code | TN 273088 | PDF page 482

> **401.2.1.2.~~5~~3.4** *[Section 120.1(d)5]* **Occupied standby zone controls.**
>
> Space conditioning zones shall include occupied standby controls complying with this section when all of the following are true:

Suggested section 401.2.1.2.3.2

Demand control ventilation devices | 2028 Energy Code | TN 273088 | PDF page 481

> **401.2.1.2.3.2** *[Section 120.1(d)4]* **Demand control ventilation devices.**
>
> 1. Ventilation systems, including *DOAS*, serving space(s) where *demand control ventilation* (*DCV*) is required shall be provided with continuously variable supply and exhaust fan speed control, such as a variable frequency drive or an electronically commutated motor, and shall be capable of modulating the outdoor airflow rate from the design outdoor airflow rate down to the greater of the following:

Requested revision

Replace 401.2.1.2.5 with 401.2.1.2.3.2 in the non-Group-R demand ventilation controls reference.

08 Group R demand control ventilation device reference

Reference precision

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 484

Demand ventilation controls complying with Section 401.2.1.2.4 *[Section 120.1(d)4]* are required for a space with a design occupant density, or a maximum occupant load factor for egress purposes in the *CBC*, greater than or equal to 25 people per 1,000 square feet (40 square feet or less per person) if the ventilation system serving the space has one or more of the following:

Current reference is a valid parent section

401.2.1.2.4 Group R scope | 2028 Energy Code | TN 273088 | PDF page 483

401.2.1.2.**4** *[New Section]* **Demand control ventilation and occupied standby (Group R occupancies)**

Group R occupancies shall comply with:

Section 401.2.1.2.4.1 *[Section 120.1(d)3]* Required *demand control ventilation*

Suggested narrower destination

401.2.1.2.4.2 DCV devices | 2028 Energy Code | TN 273088 | PDF page 484

401.2.1.2.4.2 *[Section 120.1(d)4]* **Demand control ventilation (DCV) devices.**

1. For each system with *demand control ventilation* (*DCV*, CO_2 sensors shall be installed in each room that meets the criteria of Section 401.2.1.2.3 *[Section 120.1(d)3]* with no less than one sensor per 10,000 square feet of floor space.

Requested revision

For precision, replace the parent reference 401.2.1.2.4 with the device subsection 401.2.1.2.4.2. The current parent reference is valid.

09 Group R carbon dioxide sensor reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 484

1. For each system with *demand control ventilation* (*DCV*, CO_2 sensors shall be installed in each room that meets the criteria of Section 401.2.1.2.3 *[Section 120.1(d)3]* with no less than one sensor per 10,000 square feet of floor space. When a zone or a space is served by more than one sensor, a signal from any sensor indicating that CO_2 is near or at the setpoint within the zone or space, shall trigger an increase in ventilation.

Cited section 401.2.1.2.3

Nonresidential buildings other than Group R | 2028 Energy Code | TN 273088 | PDF page 480

401.2.1.2.3 Demand control ventilation and occupied standby (Nonresidential buildings other than Group R occupancies).

Nonresidential buildings other than *Group R occupancies* shall comply with the following sections:

Suggested section 401.2.1.2.4.1

Group R required demand control ventilation | 2028 Energy Code | TN 273088 | PDF page 484

401.2.1.2.4.1~~401.2.1.2.3~~ *[Section 120.1(d)3]* **Required demand control ventilation.**

Demand ventilation controls complying with Section 401.2.1.2.4 *[Section 120.1(d)4]* are required for a space with a design occupant density, or a maximum occupant load factor for egress purposes in the *CBC*, greater than or equal to 25 people per 1,000 square feet (40 square feet or less per person) if the ventilation system serving the space has one or more of the following:

1. ~~an~~ An *air economizer*; or
2. ~~modulating~~ Modulating ~~*outside*~~ *outdoor air* control; or
3. ~~a~~A design outdoor airflow rate > 3,000 cfm

Requested revision

In the Group R carbon dioxide sensor clause, replace 401.2.1.2.3 with 401.2.1.2.4.1 and close the parenthesis after DCV.

10 Parking garage daylight shutoff

Wording correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 703

4. ~~For parking *garages*, ensure that when daylight *illuminance* levels measured at the farthest edge of the *secondary sidelit zone* away from the *glazing* or opening are greater than 150 percent of the *illuminance* provided by the controlled *lighting* when no daylight is available, the controlled *lighting* power in the combined *primary and secondary sidelit daylit zones* shall be reduced by 100 percent; and~~ Reduce controlled *lighting* power in the combined primary and *secondary sidelit daylit zones* by 100 percent when no daylight is available and daylight *illuminance* measured at the farthest edge of the secondary sidelit zone from the *glazing* or opening are greater than 150 percent of the *illuminance* provided by the controlled *lighting*; and

2025 wording establishes the measurement baseline

2025 Energy Code | PDF page 281

iv. For parking garages, ensure that when daylight illuminance levels measured at the farthest edge of the secondary sidelit zone away from the glazing or opening are greater than 150 percent of the illuminance provided by the controlled lighting when no daylight is available, the controlled lighting power in the combined primary and secondary sidelit daylit zones shall be reduced by 100 percent; and

Suggested wording

Reduce controlled lighting power in the combined primary and secondary sidelit daylit zones by 100 percent when daylight illuminance measured at the farthest edge of the secondary sidelit zone from the glazing or opening is greater than 150 percent of the illuminance provided by the controlled lighting when no daylight is available; and

Requested revision

Move "when no daylight is available" to the end of the electric-light reference measurement, and change "opening are" to "opening is," as shown above.

11 Solar roof capacity units

Unit correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 827

PHOTOVOLTAIC DIRECT CURRENT CAPACITY, SARA-BASED –(EQUATION 701.3-B) [NEW EQUATION]

$kW_{PVdc,\ SARA} = SARA \times S$

where:

$kW_{PVdc,\ SARA}$	=	SARA-based minimum rated PV system capacity in kW.
SARA	=	The *SARA* in square feet as determined in Section 701.3.2.
S	=	18 W/square foot for *steep-sloped roofs* or 14 W/square foot for *low-sloped roofs*.

Units stated in the draft

SARA is in square feet. S is in watts per square foot. Their product is watts; the equation output is labeled kilowatts.

Reproducible unit check

Example input: 1,000 ft² × 18 W/ft² = 18,000 W = 18 kW. Suggested equation: kW = (SARA × S) / 1,000.

Requested revision

With SARA in square feet and S in W/ft², revise the capacity equation to kW_PVdc,SARA = (SARA × S) / 1,000. If a different unit convention is intended, revise the factor definition and equation together.

12 Multifamily solar readiness references

Request for staff clarification

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 853

> **703.5.1.1** *[Section 180.1]* **Mandatory requirements (Additions).**
>
> Any *addition* shall meet the applicable requirements of the sections listed below:
>
> 703.2.1 *[Section 110.10]* Mandatory Requirements for Solar Readiness
>
> **Exception to Section 703.5.1.1:** *Additions* that increase the area of the *roof* by 2,000 square feet or less are not required to comply with Section 703.2.1 *[Section 110.10]*.

Current 2028 destination already includes 160.8

703.2.1 Solar readiness | 2028 Energy Code | TN 273088 | PDF page 843

> **703.2.1** *[Section 160.8, 110.10(a)]* **Solar readiness.**
>
> *Low-rise multifamily buildings*, and *high-rise multifamily buildings* with ten *habitable stories* or fewer, that do not have a *photovoltaic system* installed shall comply with the requirements of this section.

2025 provisions behind the proposed bracket

160.8(a) Newly constructed multifamily | 2025 Energy Code | PDF page 539

> (a) **Solar ready buildings**. Newly constructed multifamily buildings shall meet the requirements of Section 110.10 applicable to the building project.

110.10(a)2 | 2025 Energy Code | PDF page 213

> 2. **Low-rise multifamily buildings.** Low-rise multifamily buildings that do not have a photovoltaic system installed shall comply with the requirements of Sections 110.10(b) through 110.10(d).

110.10(a)3 | 2025 Energy Code | PDF page 213

> 3. **Hotel/motel occupancies and high-rise multifamily buildings.** Hotel/motel occupancies and high-rise multifamily buildings with ten habitable stories or fewer, that do not have a photovoltaic system installed, shall comply with the requirements of Sections 110.10(b) through 110.10(d).

110.10(a)4 | 2025 Energy Code | PDF page 213

> 4. **Nonresidential buildings.** Nonresidential buildings with three habitable stories or fewer, other than I-2 and I-2.1 buildings, that do not have a photovoltaic system installed, shall comply with the requirements of Sections 110.10(b) through 110.10(d).

Requested revision

Reconcile the historical bracket references with Section 703.2.1 and confirm which 2025 provisions apply. Retain the valid 703.2.1 destination. Confirm the relevance of 110.10(a)4 before including that nonresidential provision in a multifamily crosswalk.

13 Pool alteration solar roof reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 859

Exception 4 to Section 801.~~6~~5.2.1.1: Heating systems which are used exclusively for permanent *spa* applications where there is inadequate *SARA* as specified in Section 701.3.1.1 for a *solar pool heating system* to be installed.

Former and current SARA numbers

701.3.2 Solar Access Roof Area | 2028 Energy Code | TN 273088 | PDF page 824

701.3.~~1.1~~2 *[Section 140.10(a)1 and 2]* **Solar Access Roof Area (SARA).**

SARA includes the area of the *building's roof* space ~~capable of structurally supporting a PV system,~~ and the area of all *roof* space on covered parking areas, *carports* and all other newly constructed structures on the site that ~~are compatible with supporting a PV system per Title 24, Part 2, Section 1511.10.~~meet all the following conditions:

Requested revision

Replace 701.3.1.1 with 701.3.2 in the pool/spa alteration exception that refers to available SARA.

14 Pool alteration hardship references

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 860

1. The cost of infrastructure upgrade to meet Section 801.6.1 exceeds 20 percent of the total cost of the project. Infrastructure upgrades include but are not limited to an electrical panel upgrade, physical space modification, and venting upgrade~~, etc~~. Cost of infrastructure upgrades does not include the cost of equipment;

Former and current alteration numbers

801.5.2.1 Mandatory requirements for alterations | 2028 Energy Code | TN 273088 | PDF page 858

801.5 Additions and alterations to existing pools and spas.

801.5.1 Additions.
RESERVED.

801.~~6~~5.2 Alterations ~~to existing pools and spas~~.

801.~~6~~5.2.1 Mandatory requirements (Alterations).

801.5.2.1.1 Heating source requirements | 2028 Energy Code | TN 273088 | PDF page 859

801.~~6~~5.2.1.1 Heating source requirements.

Heating systems or equipment for *pools* and/or *spas* located in *climate zones* 2 through 16, shall meet one of the requirements of 1 through 6 below:

Requested revision

Replace the three retained 801.6.1 references with 801.5.2.1, and the retained 801.6.1.1 reference with 801.5.2.1.1 in Exception 6.

15 Indoor growing sizing appendix

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 905

2.1. Sizing. *Indoor growing space--conditioning system(s)* shall be sized to meet the design heating, cooling, and dehumidification loads calculated according to Reference Nonresidential Appendix NA9 and documented in construction documents.

Cited Appendix NA9

NA9 Existing Building Commissioning | 2028 Reference Appendices | TN 273089 | PDF page 650

Appendix NA9 - Existing Building Commissioning Process

NA9.1Purpose and Scope

NA9 establishes mandatory procedures, diagnostic requirements, documentation standards, and verification criteria governing Existing Building Commissioning (EBCx) for nonresidential buildings. This appendix serves as a uniform reference for Existing Building Commissioning Agents (EBCxAs), Owners, enforcing agencies, and other parties involved in evaluating and improving existing building system performance under Part 6. The requirements outlined in NA9 are developed based upon ASHRAE Standard 230.

Suggested Appendix NA7.21.3

NA7.21.3 Indoor Growing Space Conditioning System Sizing | 2028 Reference Appendices | TN 273089 | PDF page 629

***NA7.21.3* Indoor Growing Space--Conditioning System Sizing**

1. **Purpose and Scope**
   The purpose of this load calculation and sizing calculation is to provide instructions for calculating loads and sizing space conditioning equipment in *Indoor Growing* space. These calculations will enable determination of whether a design complies with the code in section 908.1.6 [section 120.6(h)6A].

Requested revision

Replace Appendix NA9 with Appendix NA7.21.3 for the indoor-growing sizing calculation, including the related references in 908.1.6.2.2.1.2, 908.1.6.2.2.1.3.1 and 908.1.6.2.4.1.

16 Indoor growing control reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 906

2.2.1.3.5. The *integrated space conditioning* system shall be controlled in accordance with Section 908.1.6.2.4.

Cited section 908.1.6 item 2.4

Supplemental heating | 2028 Energy Code | TN 273088 | PDF page 907

2.4. Supplemental heating. If used, electric resistance heating or combustion heating equipment shall comply with the following:

2.4.1. Equipment shall be sized to meet steady state or transient heating loads that cannot be met with heat recovered from the dehumidification process according to Reference Nonresidential Appendix NA.9.

2.4.2. Equipment shall be controlled to only operate when heating load exceeds available recovered *heat capacity*.

Suggested section 908.1.6 item 2.5

Integrated temperature and humidity controls | 2028 Energy Code | TN 273088 | PDF page 907

2.5. Integrated temperature and humidity controls. Controls for *indoor growing space-conditioning systems* shall meet all of the following requirements:

2.5.1. One integrated control system shall control both humidity and temperature based on readings from humidity and temperature sensors co-located within the plant canopy.

2.5.2. Controls shall automatically stage or modulate all *indoor growing space-conditioning equipment* to meet temperature and humidity setpoints.

Requested revision

Replace 908.1.6.2.4 with 908.1.6.2.5 in the integrated space-conditioning control reference.

17 Commissioning scope references

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 933

1001.2 [Section 120.8(a)] **Mandatory requirements (Newly Constructed).**

All *building* systems and components covered by the nonresidential requirements of Title 24, *Part 6* Sections 100.0, 200.0, 300.0, 400.0, 500.0, 600.0, 700.0, 800.0, 900.0 *[Sections 110.0, 120.0, 130.0, and 140.0]* shall be included in the scope of the commissioning requirements in this section, excluding those related solely to *covered processes*.

What the source calls these divisions

Subchapter 1 | 2028 Energy Code | TN 273088 | PDF page 127

SUBCHAPTER 1
GENERAL PROVISIONS

Subchapter 2 | 2028 Energy Code | TN 273088 | PDF page 232

SUBCHAPTER 2
DEFINITIONS

Subchapter 3 | 2028 Energy Code | TN 273088 | PDF page 308

SUBCHAPTER 3
ENVELOPE

Subchapter 4 | 2028 Energy Code | TN 273088 | PDF page 418

SUBCHAPTER 4
SPACE-CONDITIONING AND VENTILATION

Subchapter 5 | 2028 Energy Code | TN 273088 | PDF page 650

SUBCHAPTER 5
PLUMBING

Subchapter 6 | 2028 Energy Code | TN 273088 | PDF page 682

SUBCHAPTER 6
ELECTRICAL AND LIGHTING

Subchapter 7 | 2028 Energy Code | TN 273088 | PDF page 818

SUBCHAPTER 7
PHOTOVOLTAIC ~~RENEWABLES~~ AND BATTERY ENERGY STORAGE SYSTEMS

Subchapter 8 | 2028 Energy Code | TN 273088 | PDF page 854

SUBCHAPTER 8
POOL AND SPA

Subchapter 9 | 2028 Energy Code | TN 273088 | PDF page 866

SUBCHAPTER 9
PROCESS SYSTEMS AND EQUIPMENT

Requested revision

Replace the listed Sections 100.0 through 900.0 with Subchapters 1 through 9, including the corresponding reference in Section 1001.1. Retain the nonresidential scope and the exclusion for systems related solely to covered processes.

18 Commissioning construction document reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 933

Nonresidential *use designations* not including ~~*buildings other than*~~ *healthcare facilities*, with *conditioned space* of less than 10,000 square feet shall comply with the *design review* requirements specified in Section 1001.2.3 *[Section 120.8(d)]*, and shall include any measures or requirements necessary for completing this review in the construction documents in a manner consistent with Section 1001.2.4 *[Section 120.8(e)]*.

Cited section 1001.2.4

Design review kickoff | 2028 Energy Code | TN 273088 | PDF page 936

1001.2.4 Design review kickoff.

During the schematic design phase of the *building* project, the ~~owner or owner's representative,~~ *design team* ~~and *design reviewer*~~ must meet to discuss the project scope, schedule and how the *design reviewer* will coordinate with the project and *design teams*.

Suggested section 1001.2.6

Commissioning measures shown in construction documents | 2028 Energy Code | TN 273088 | PDF page 936

1001.2.64 *[Section 120.8(e)]* **Commissioning measures shown in the construction documents.**

Complete descriptions of all measures or requirements necessary for commissioning shall be included in the construction documents (plans and specifications). Commissioning measures or requirements shall be clear, detailed and complete to clarify the commissioning process.

Requested revision

Replace 1001.2.4 with 1001.2.6 in the commissioning design-review reference to construction documents.

19 Commissioning plan contents and references

Reference correction and request to confirm omitted wording

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 937

4.7. Commissioning process activities Section 1001.2.6 through 1001.2.8 *[Sections 120.8(g) through 120.8(i)]* shall be included.

2025 source of the omitted wording

2025 Energy Code | PDF page 269

G. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning requirements listed in Sections 120.8(g) through 120.8(i) shall be included.

The current range begins at construction documents

1001.2.6 Construction documents and 1001.2.7 Commissioning plan | 2028 Energy Code | TN 273088 | PDF page 936

1001.2.64 *[Section 120.8(e)]* **Commissioning measures shown in the construction documents.**

Complete descriptions of all measures or requirements necessary for commissioning shall be included in the construction documents (plans and specifications). Commissioning measures or requirements shall be clear, detailed and complete to clarify the commissioning process.

1001.2.75 *[Section 120.8(f)]* **Commissioning plan.**

Suggested range 1001.2.8 through 1001.2.10

1001.2.8 Functional performance testing | 2028 Energy Code | TN 273088 | PDF page 937

1001.2.86 *[Section 120.8(g)]* **Functional performance testing.**

1001.2.9 Documentation and training | 2028 Energy Code | TN 273088 | PDF page 937

1001.2.97 *[Section 120.8(h)]* **Documentation and training.**

A systems manual and systems operations training shall be completed.

1001.2.10 Commissioning report | 2028 Energy Code | TN 273088 | PDF page 938

1001.2.108 *[Section 120.8(i)]* **Commissioning report.**

A complete report of commissioning *process* activities undertaken through the design, construction and reporting recommendations for post- construction phases of the *building* project shall be completed and provided to the owner or owner's representative.

Requested revision

Correct the range to 1001.2.8 through 1001.2.10. Restore the 2025 wording about schedules, responsibilities and plans for completion, or explain the intended deletion and provide a complete replacement sentence.

20 Hot water temperature reference

Reference correction

Citation in the 2028 draft

2028 Energy Code | TN 273088 | PDF page 945

3. Evaluate heating plant capability to meet zone heating loads at the lowest possible HHW supply temperature (down to 130°F as specified by Section 401.2.2.13 *[Section 120.1(l)].*

Actual 2025 temperature provision

2025 Energy Code | PDF page 239

(l) **HVAC Hot Water Temperature.** Zones that use hot water for space heating shall be designed for a hot water supply temperature of no greater than 130 °F.

Current 2028 destination is already correct

401.2.2.13 HVAC hot water temperature | 2028 Energy Code | TN 273088 | PDF page 500

401.2.2.13~~2~~ *[Section 120.2(l)]* **HVAC hot water temperature.**

Zones that use hot water for space heating shall be designed for a hot water supply temperature of no greater than 130 °F. New or replacement terminal units in *alterations* shall be designed to operate at the existing hot water system supply temperature and shall also be capable of operation with a supply temperature no greater than 130°F.

Requested revision

Keep 401.2.2.13. Change its historical bracket from 120.1(l) to 120.2(l), and close the parenthesis after the bracket.

21 Insulation certification reference

Reference correction

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 76

> **NOTE:** Insulation must be certified in accordance with Section 110.8(a).

Legacy citation in the 2025 code

110.8(a) Insulation certification | 2025 Energy Code | PDF page 207

> (a) **Insulation certification by manufacturers.** All insulation shall be certified by Department of Consumer Affairs, Bureau of Household Goods and Services that the insulation conductive thermal performance is approved pursuant to the California Code of Regulations, Title 24, Part 12, Chapters 12-13, Article 3, "Standards for Insulating Material."

Suggested 2028 destination

300.3.1 Insulation certification | 2028 Energy Code | TN 273088 | PDF page 317

> **300.3.1** *[Section 110.8(a)]* **Insulation certification by manufacturers.**
>
> All insulation shall be certified by Department of Consumer Affairs, Bureau of Household Goods and Services that the insulation conductive thermal performance is approved pursuant to the California Code of Regulations, Title 24, Part 12, Chapters 12-13, Article 3, "Standards for Insulating Material."

Requested revision

Replace 110.8(a) with 300.3.1 in the JA1 insulation definition and the JA4.1.1 insulation certification note.

22 Smart thermostat code references

Reference correction

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 167

> An OCST is compliant with Title 24, Part 6, only if it has been certified to the Energy Commission as meeting all of the requirements in this Appendix. Certification to the Energy Commission shall be as specified in Section 110.0.

2028 Reference Appendices | TN 273089 | PDF page 167

> An OCST shall meet the requirements of Section 110.2(c). Thermostats for heat pumps shall also meet the requirements of Section 110.2(b).

Legacy citations in the 2025 code

110.2(c) Thermostats | 2025 Energy Code | PDF page 169

> (c) **Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) shall have a setback thermostat.

110.2(b) Heat-pump controls | 2025 Energy Code | PDF page 169

> Control requirements for heat pumps with supplementary heaters in single-family residential buildings are specified in Section 150.0(h)7 and Section 150.0(i)2. Heat pumps with supplementary heaters in nonresidential and multifamily buildings shall have controls:
>
> 1. That prevent supplementary heater operation when the heating load can be met by the heat pump alone; and

110.0(b) Certification requirements | 2025 Energy Code | PDF page 165

> (b) **Certification Requirements for Manufactured Systems, Equipment, Appliances and Building Components.**

Suggested 2028 destinations

400.5.2 Heat-pump controls | 2028 Energy Code | TN 273088 | PDF page 462

> **400.5.2** *[Section 110.2(b)]* **Controls for heat pumps with supplementary heaters.**
>
> Control requirements for *heat pumps* with supplementary heaters in *single-family residential buildings* are specified in Section 402.2.2.7 *[Section 150.0(h)7]* and Section 402.2.4.2 *[Section 150.0(i)2]*. *Heat pumps* with supplementary heaters in *nonresidential* and *multifamily buildings* shall have controls:
>
> 1. That prevent supplementary heater operation when the heating load can be met by the *heat pump* alone; and

400.5.3 Thermostats | 2028 Energy Code | TN 273088 | PDF page 462

> **400.5.3** *[Section 110.2(c)]* **Thermostats.**
>
> All heating or cooling systems not controlled by a central *energy management control system (EMCS)* shall have a setback *thermostat*.

101.2 General systems and equipment | 2028 Energy Code | TN 273088 | PDF page 153

> **101.2** *[Section 110.0]* **General.**
>
> The following sections specify requirements for manufacturing, construction and installation of certain systems, *equipment*, appliances and *building* components that are installed in *buildings* within the scope of Section 100.3 *[Section 100.0(a)]*.

Requested revision

In JA5, replace 110.0 with 101.2, 110.2(c) with 400.5.3, and 110.2(b) with 400.5.2 in the corresponding certification and thermostat provisions.

23 Economizer fault detection references

Reference correction

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 174

> Title 24, Part 6, Section 120.2(i) requires that economizer FDD functions be installed on air-cooled unitary air conditioning systems with an air handler mechanical cooling capacity over 33,000 Btu/hr cooling capacity, with the ability to detect the faults specified in Section 120.2(i). Each air conditioning system manufacturer, controls supplier, or FDD supplier of stand-alone or integrated FDD systems used to fulfill economizer fault detection and diagnostics requirements shall certify that their FDD analytics conform to the FDD requirements of Title 24, Part 6, Section 120.2(i)1 – 120.2(i)7 in a written letter to the California Energy Commission. The declaration at the end of this section shall be used in the letter submitted to the California Energy Commission.

Legacy 2025 citation

120.2(i) Economizer FDD | 2025 Energy Code | PDF page 237

> (i) **Economizer fault detection and diagnostics (FDD).** All newly installed air handlers with a mechanical cooling capacity over 33,000 Btu/hr and an installed air economizer shall include a stand-alone or integrated Fault Detection and Diagnostics (FDD) system in accordance with Subsections 120.2(i)1 through 120.2(i)8.

Suggested 2028 destinations

401.2.2.9 Economizer FDD | 2028 Energy Code | TN 273088 | PDF page 495

> **401.2.2.9** *[Section 120.2(i)]* **Economizer fault detection and diagnostics (FDD).**
>
> All newly installed *air handlers* with a *mechanical cooling* capacity over 33,000 Btu/hr and an installed *air economizer* shall include a stand-alone or integrated *Fault Detection and Diagnostics* (FDD) system in accordance with the following:

Certification clause expressly maps old items 1 through 7 to .9.1 through .9.4 | 2028 Energy Code | TN 273088 | PDF page 496

> **401.2.2.9.5- Certification to *Energy Commission*.** The FDD System shall be *certified to the Energy Commission* as meeting requirements of Sections 401.2.2.9.1 through 401.2.2.9.4 *[Sections 120.2(i)1 through 120.2(i)7]* in accordance with Section 101.2 *[Section 110.0]* and Reference Joint Appendix JA6.3.

Requested revision

In JA6.3 and its declaration, replace standalone 120.2(i) references with 401.2.2.9. Replace the former items 120.2(i)1 through 120.2(i)7 range with 401.2.2.9.1 through 401.2.2.9.4.

24 High efficacy lighting reference

Reference correction

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 227

JA8.1 Purpose and Scope

Joint Appendix JA8 provides the qualification requirements for high luminous efficacy light sources installed to comply with Section 150.0(k). For the purposes of this Section, high luminous efficacy light sources include ballasts or LED drivers if needed for operation of the light source: light sources shall be certified together with a driver or ballast. If the light source is inseparable from the luminaire the entire luminaire shall meet the requirements of this section. All qualifying light sources shall be certified to the Energy Commission according to all of the requirements in this Appendix.

Legacy 2025 citation

150.0(k) Residential lighting | 2025 Energy Code | PDF page 408

(k) **Residential lighting.**

1. **Luminaire requirements.**

   A. **Luminaire efficacy.** All installed luminaires and light sources shall comply with Reference Joint Appendix JA8 and shall be certified and marked as required by JA8.

Suggested 2028 destination

602.2.1 Single-family lighting | 2028 Energy Code | TN 273088 | PDF page 778

602.2.1 *[Section 150.0(k)]* ~~**Residential**~~ **Single-family lighting.**

602.2.1.1 *[Section 150.0(k)1A]* **Luminaire efficacy.**

All installed *luminaires* and *light sources* shall comply with Reference Joint Appendix JA8 and shall be certified and marked as required by JA8.

Requested revision

In JA8.1, replace 150.0(k) with 602.2.1.

25 Solar pool collector table reference

Destination correction and request to confirm table numbering

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 275

Solar thermal collectors shall be listed and labeled in accordance with Table 110.4-A.

Legacy 2025 table

Table 110.4-A Heating equipment standards | 2025 Energy Code | PDF page 200

Table 110.4-A HEATING EQUIPMENT STANDARDS

Heating Energy Source	Standard
Electric Resistance	UL 1261
Gas-fired	ANSI Z21.56/CSA 4.7a
Heat Pump	AHRI 1160 and one of the following: CSA C22.2 No. 236, UL 1995, or UL/CSA 60335-2-40
Solar	ICC/APSP 902/SRCC 400 for solar pool heaters, ICC 901/SRCC 100 for solar collectors

Actual 2028 destination heading

Heating equipment standards with A deleted and (1) added | 2028 Energy Code | TN 273088 | PDF page 855

TABLE 800.2-~~A~~(1) [Table 110.4-A] HEATING EQUIPMENT STANDARDS

HEATING ENERGY SOURCE	STANDARD
Electric Resistance	*UL* 1261
Gas-fired	*ANSI* Z21.56/CSA 4.7a
Heat Pump	*AHRI* 1160 and one of the following: CSA C22.2 No. 236, *UL* 1995, or *UL*/CSA 60335-2-40
Solar	ICC/APSP 902/SRCC 400 for solar pool heaters, ICC 901/SRCC 100 for solar collectors

Requested revision

Replace the JA16.2 reference to Table 110.4-A with the final number of the Heating Equipment Standards table on draft-code PDF page 855. The visible surviving draft label is 800.2-(1); please confirm and standardize its final punctuation. Do not retain the struck A.

26 Guideline 36 programming reference

Reference correction

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 280

JA18.1 Purpose and Scope

Title 24, Part 6, Section 140.4(r) requires that HVAC control systems with DDC use programming originating from a certified programming library based on control sequences of operation described in ASHRAE Guideline 36. This section describes the requirements of the Guideline 36 programming library.

Legacy 2025 citation

140.4(r) DDC controller logic | 2025 Energy Code | PDF page 343

(r) **DDC controller logic using ASHRAE Guideline 36.** HVAC systems with DDC controllers shall use controller logic originating from a programming library based on sequences of operation from ASHRAE Guideline 36 in accordance with the following:

Suggested 2028 destination

401.3.20 DDC controller logic | 2028 Energy Code | TN 273088 | PDF page 551

401.3.20 *[Section 140.4(r)]* **DDC controller logic using ASHRAE Guideline 36.**

HVAC systems with *DDC* controllers shall use controller logic originating from a *programming library* based on sequences of operation from *ASHRAE Guideline 36* in accordance with 401.3.20.1 through 401.3.20.3.

Requested revision

In JA18, including JA18.5 and its declaration, replace 140.4(r) with 401.3.20.

27 Air filter verification reference

Reference correction

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 337

RA3.1.4.5 Verification of Air Filter Device Design

Verification shall consist of a visual inspection to confirm that the air filter devices conform to the requirements given in Section 150.0(m)12.

Legacy 2025 citation

150.0(m)12 Air filtration | 2025 Energy Code | PDF page 415

12. **Air filtration.**

    A. System types specified in Subsections i, ii, and iii shall be provided with air filters in accordance with Sections 150.0(m)12B, 150.0(m)12C, and 150.0(m)12D. System types specified in Subsection i shall also comply with Section 150.0(m)12E.

Suggested 2028 destination

402.2.6.12 Air filtration | 2028 Energy Code | TN 273088 | PDF page 573

402.2.6.12 *[Section 150.0(m)12]* **Air filtration.**

System types specified below shall be provided with *air filters* in accordance with Sections 402.2.6.12.1 through 402.2.6.12.3 *[Sections 150.0(m)12B, 150.0(m)12C, and 150.0(m)12D]*.

Requested revision

In RA3.1.4.5, replace 150.0(m)12 with 402.2.6.12.

28 Indoor growing load calculation inputs

Reference and threshold alignment

Citation in the 2028 draft

2028 Reference Appendices | TN 273089 | PDF page 630

3.1.2. For each unique room or other indoor growing space where lighting intensity is greater than 30 W/canopy square foot, provide the following:

3.1.2.1. Canopy square footage calculated as described in NA9.2 Canopy Square Footage.

Cited section NA9.2

NA9.2 Objectives for existing-building commissioning | 2028 Reference Appendices | TN 273089 | PDF page 650

NA9.2 Objectives

The objectives of the EBCx process encompass both immediate operational improvements and long-term strategic value. EBCx shall:

1. Establish baseline performance for HVAC, including setpoint adherence and operational sequencing.

Suggested method and matching scope

NA7.21.3 Scope includes 30 W per canopy square foot | 2028 Reference Appendices | TN 273089 | PDF page 629

NA7.21.3 **Indoor Growing Space--Conditioning System Sizing**

1. **Purpose and Scope**

   The purpose of this load calculation and sizing calculation is to provide instructions for calculating loads and sizing space conditioning equipment in *Indoor Growing* space. These calculations will enable determination of whether a design complies with the code in section 908.1.6 [section 120.6(h)6A].

   This load calculation and sizing procedure are applicable to *indoor growing* spaces with lighting power density greater than or equal to 30 Watts per canopy square foot in *indoor growing* facilities with canopy area greater than or equal to 5,000 square feet.

NA7.21.3 Item 2 Canopy square footage | 2028 Reference Appendices | TN 273089 | PDF page 629

2. **Canopy Square Footage**

   To determine total canopy area of *indoor growing* rooms in a facility, boundaries in the form of trellising, trays, shelves, etc. serve to demarcate the canopy of the cultivation area.

Requested revision

In NA7.21.3 item 3.1.2, use greater than or equal to 30 W/canopy square foot to match the stated scope. In item 3.1.2.1, replace NA9.2 with NA7.21.3, Item 2.