

DOCKETED	
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Project Title:	2025 Energy Code Rulemaking
TN #:	255769
Document Title:	April 16, 2024, Presentation Slides from Lead Commissioner Hearing on 2025 Building Energy Efficiency Standards
Description:	<p>Presentation slides from the April 16, 2024, Lead Commissioner Hearing on the proposed changes to the 2025 Building Energy Efficiency Standards.</p> <p>All materials related to this hearing, including a recording of this hearing will be posted on the event website at https://www.energy.ca.gov/event/2024-04/day-1-lead-commissioner-hearings-2025-building-energy-efficiency-standards.</p>
Filer:	Javier Perez
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	4/17/2024 4:16:23 PM
Docketed Date:	4/17/2024



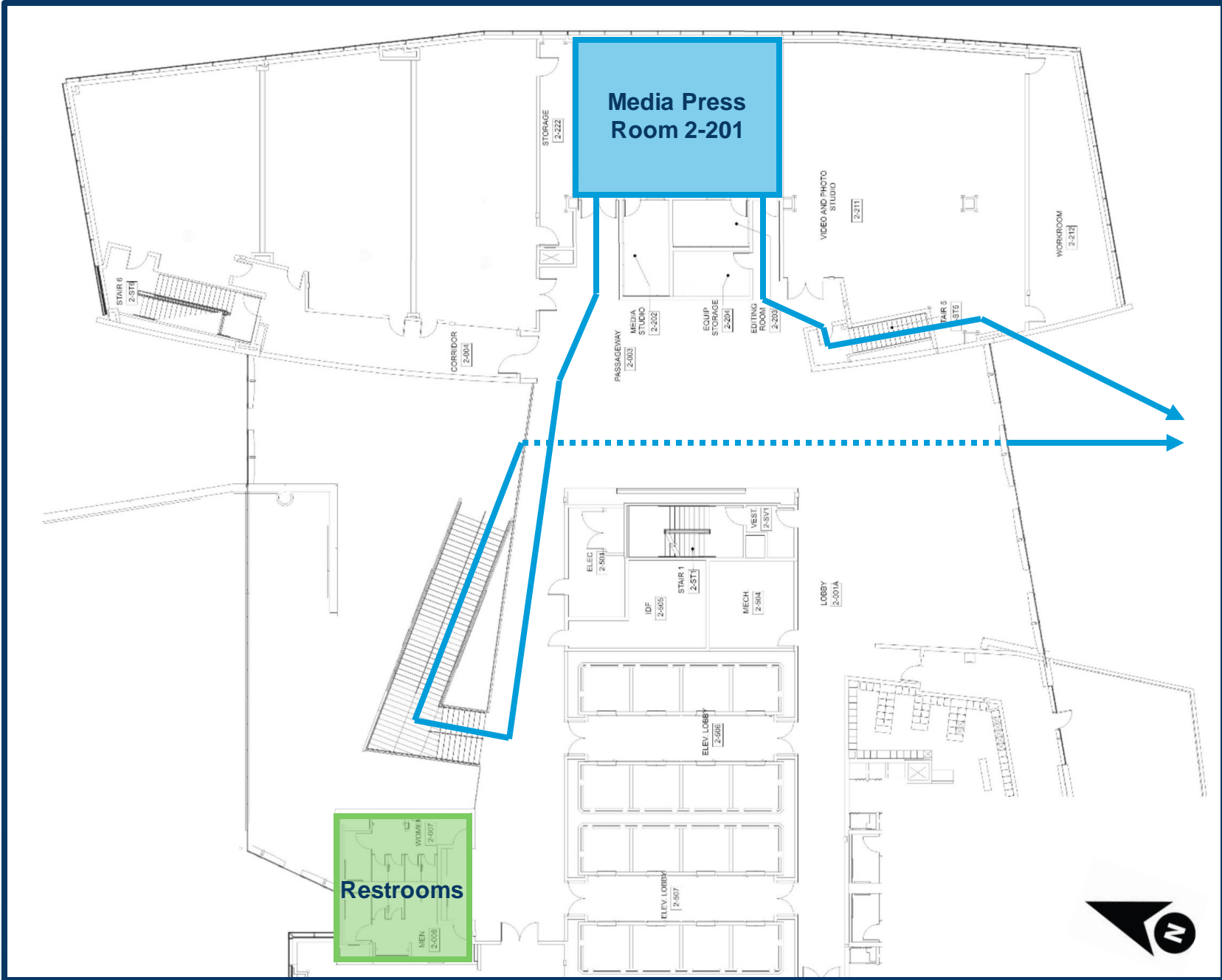
**Good morning and thank you
for joining us.**

The hearing will begin shortly.



2025 Building Energy Efficiency Standards – Lead Commissioner Hearing

April 16, 2024



**P Street
Emergency
Gathering
Point**



Housekeeping Rules

Public Comments

In Person

- Raise hand

Microphone will be provided

- State your name and affiliation
- Maximum 2 minutes per speaker, 1 speaker per affiliation

Zoom App/Online

- Click “raise hand”

Telephone

- Press *9 to raise hand
- Press *6 to Mute/Unmute

When called upon

- CEC will open your line
- Unmute on your end
- Spell name and state affiliation, if any
- Maximum 2 minutes or less per speaker, 1 speaker affiliation



Today's Agenda

	Topics	Presenter
	General Structure of Hearing	Payam Bozorgchami
	Opening Remarks	Commissioner McAllister
	Rulemaking Introduction	Javier Perez
	Part 1: All Changes Field Verification & Diagnostic Testing / Acceptance Test Technician Certification Program Updates	Joe Loyer
	Break	
	<i>Continuation of:</i> Part 1: All Changes Field Verification & Diagnostic Testing / Acceptance Test Technician Certification Program Updates	Joe Loyer
	Lunch	



Today's Agenda (continued)

	Topics	Presenter
	Part 6: Scope, Energy Budgets, and Mandatory Requirements Applicable to all Buildings	Haile Bucaneg
	Break	
	<i>Continuation of:</i> Part 6: Scope, Energy Budgets, and Mandatory Requirements Applicable to all Buildings	Haile Bucaneg
	Closing Remarks	Commissioner McAllister
	End	Payam Bozorgchami



Comments on the 2025 Codes

- **Comments on Today's Hearing**
- **Due Date: May 13, 2024, by 5:00 PM**

- **Comments to be submitted to:**
<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?doCKETnumber=24-BSTD-01>

- Thank you for participating!



Upcoming Lead Commissioner Hearings

Upcoming 2025 Energy Code Lead Commissioner Hearing (Zoom Only)

- **Wednesday, April 17, from 9am to 4pm**
- Topics covered will include:
 - Covered Processes
 - Nonresidential Buildings:
 - Mechanical
 - Envelope
 - Lighting
 - Nonresidential Buildings:
 - Photovoltaic
 - Battery Energy Storage Systems





Upcoming Lead Commissioner Hearings

Upcoming 2025 Energy Code Lead Commissioner Hearing

- **Thursday, April 18, from 9am to 4pm**
- **Topics covered will include:**
 - **Single-Family Residential Buildings**
 - **Mandatory Measures**
 - **Prescriptive Measures**
 - **Additions and Alteration**
 - **Multifamily Buildings**
 - **Mandatory Measures**
 - **Prescriptive Measures**
 - **Additions and Alteration**





2028 Measure Proposal Ideas

CASE Team 2028 Measure Intake Webpage Now Available

- Measures not included in 2025 cycle
- New ideas, technologies, etc.
- Intake portal now open
- Visit:
<https://title24stakeholders.com/provide-a-code-change-idea/>



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Provide a Code Change Idea



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2025 Building Energy Efficiency Standards Rulemaking - Lead Commissioner Hearings

Energy Code Authority, Drivers and Themes, Metrics, and Timeline

Javier Perez, Project Manager, 2025 Standards

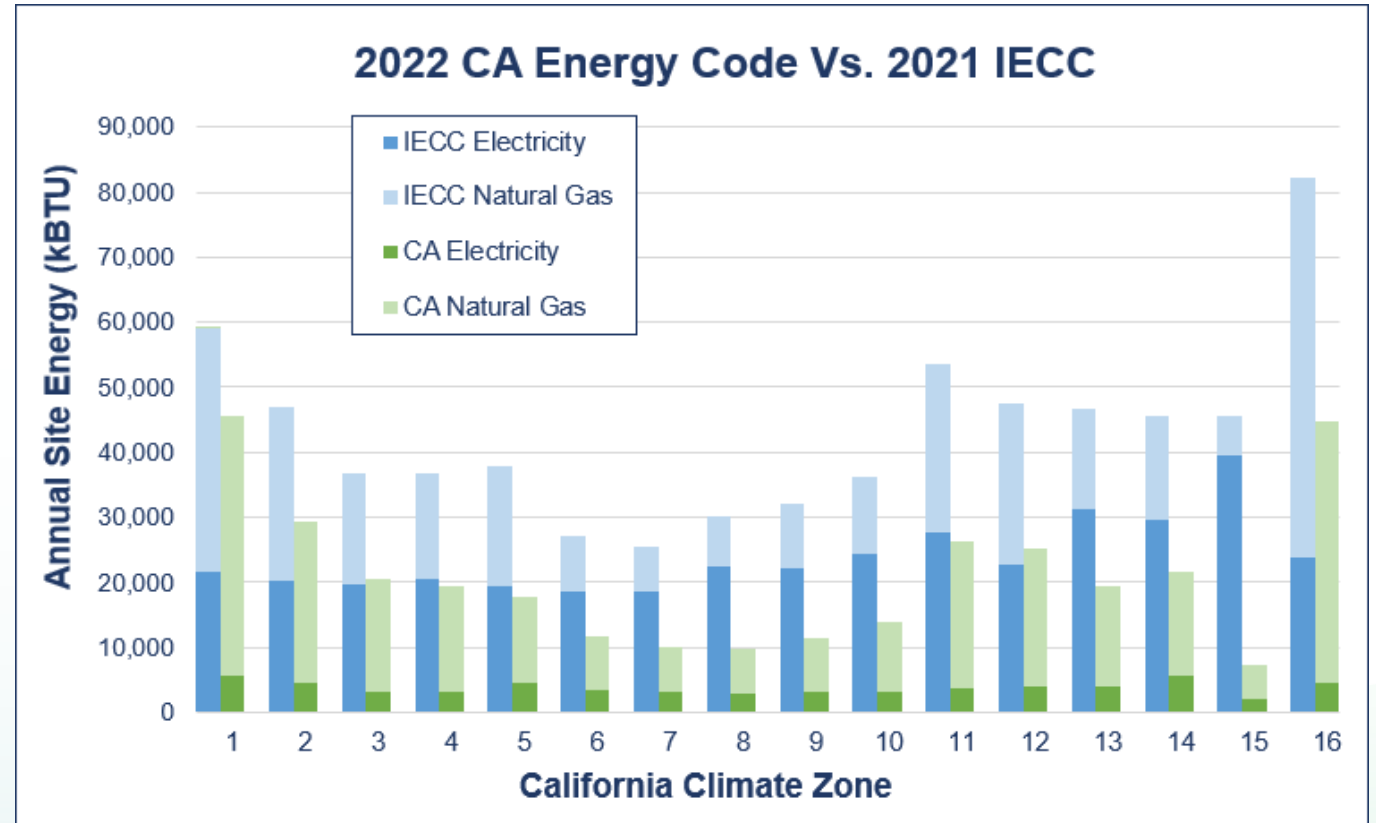
April 16, 2024



California Energy Commission's Authority and Process

California's Warren Alquist Act Signed into law in 1974

- Reduction of wasteful, uneconomic, inefficient, or unnecessary consumption of energy as it relates to buildings
- Residential Chart Details:
 - Blue bars: Site energy of a single-family building built to 2021 International Energy Conservation Code (IECC)
 - Green bars: Site energy of a single-family building built to 2022 California Energy Code
- For more on how the 2022 Energy Code compares to federal standards, see our 2022 Impact Analysis at: <https://www.energy.ca.gov/publications/2023/impact-analysis-2022-update-california-energy-code>





2025 Energy Code Drivers and Themes

State Goals

- Increase building energy efficiency cost-effectively
- Contribute to the state's GHG reduction goals

2025 Energy Code Strategies

- Heat pump baselines
- Promote demand flexibility, Solar PV generation and energy storage
- Covered process loads
- Equity & affordable new housing program integration
- Additions, alterations, and smaller homes (e.g., ADUs)
- Interagency coordination

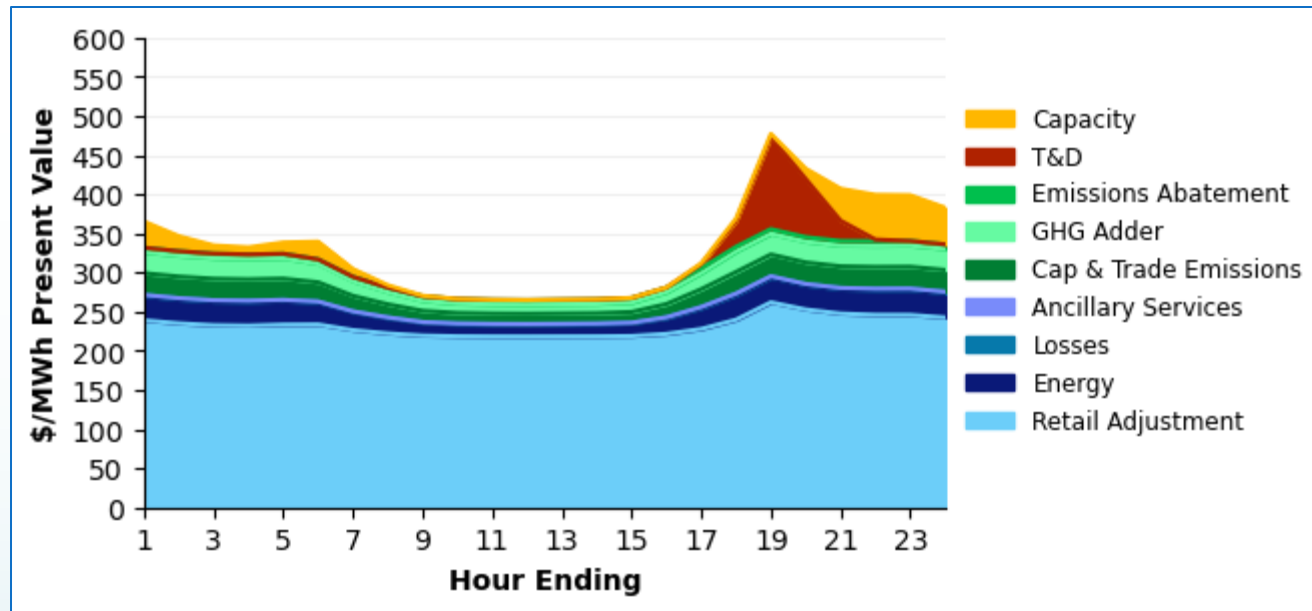




Long-Term System Cost

Long-term System Cost (LSC) Hourly factors are used to convert predicted site energy use to long-term dollar costs to CA's energy system.

Since the *time* that energy is used is as important as the *amount* of energy used, these factors are generated on an hourly basis for a representative year and created for each of CA's diverse climate zones.



Sample LSC shape by component, average day, levelized 30-year residential, climate zone 12

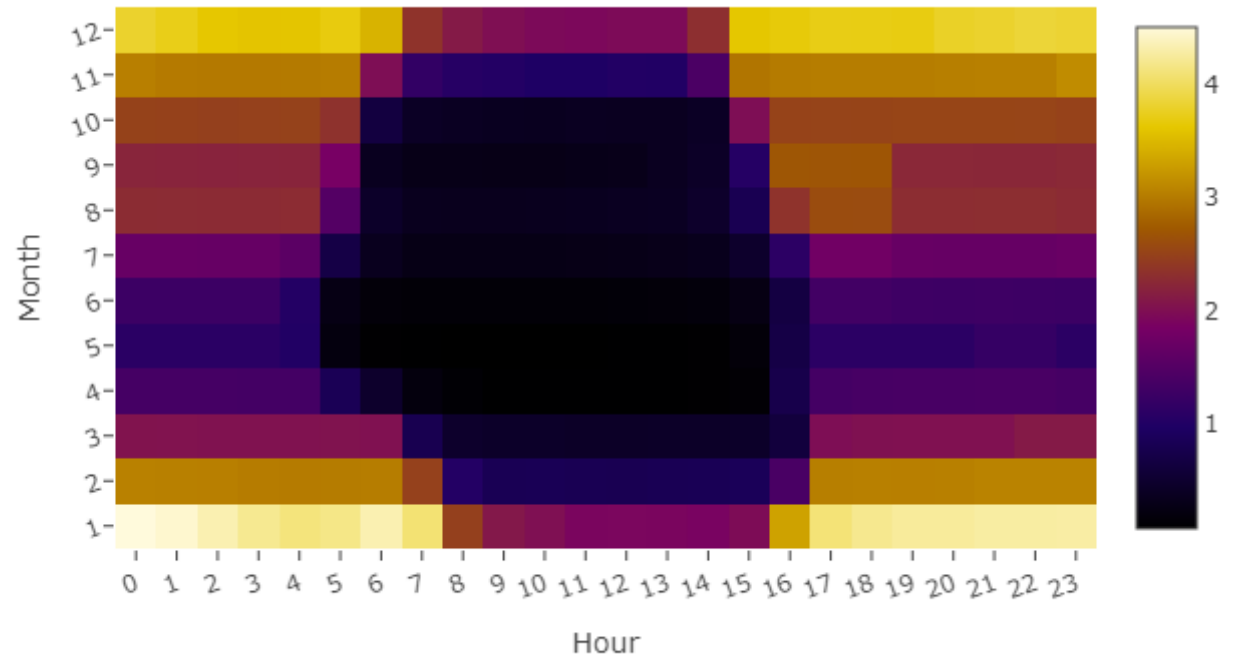


Source Energy Metric

Long run marginal source energy is defined as the source energy of fossil fuels following the long-term effects of any associated changes in resource procurement.

Source Energy focuses specifically on the amount of fossil fuels that are combusted in association with demand-side energy consumption and assists in aligning our standards with the CA's environmental goals.

5-Month Average of electricity long run marginal source energy for 2025
Energy Code

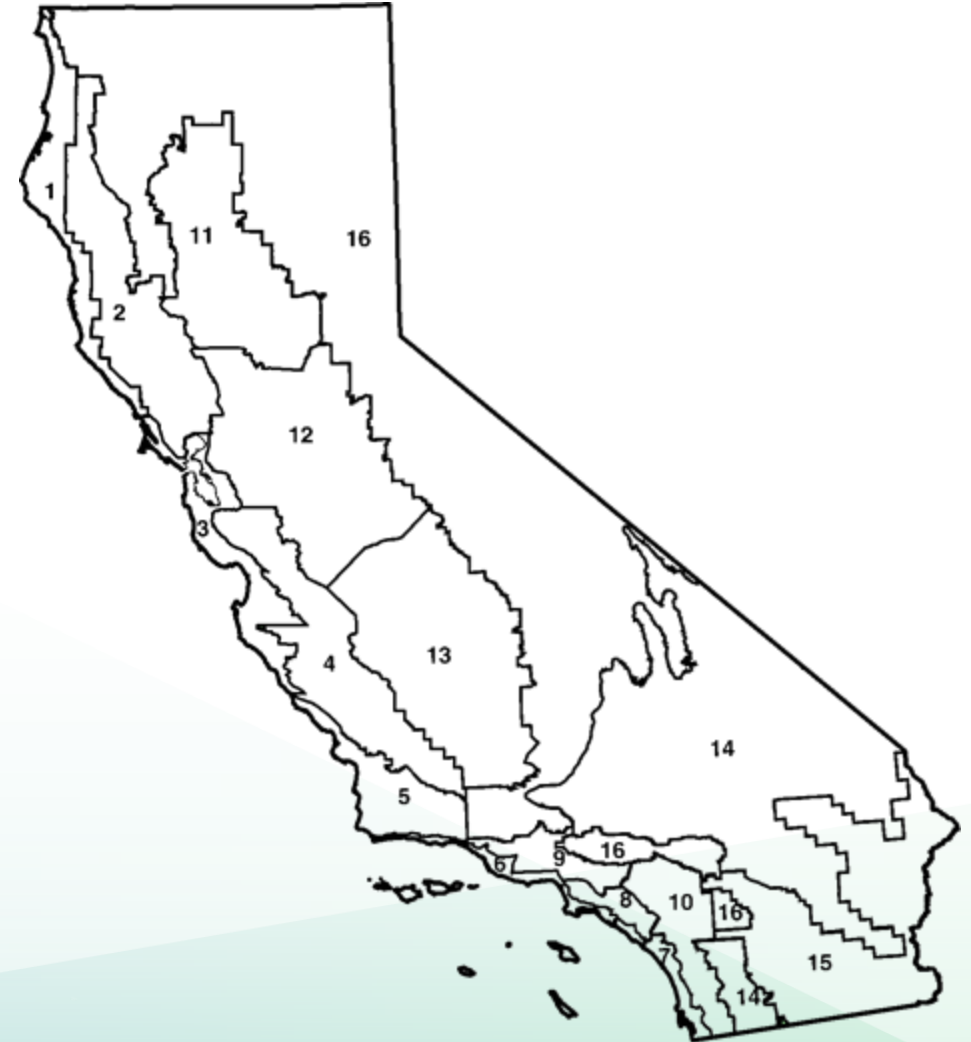




California Climate Zones

California has 16 climate zones

- Climate Zones allow software to more accurately simulate variances weather, and as a result, energy consumption of buildings
- A measure's cost effectiveness can vary as a result of weather differences
- Energy Code requirements vary by climate zone as a result





2025 Cycle - Work To Date

Milestones	Timelines
Codes & Standards Enhancement (CASE) Team Measure Proposal Efforts <ul style="list-style-type: none">• 19 Public Workshops• https://title24stakeholders.com/	June 2021 – July 2023
CEC Updated Weather Data, LSC, and Source Energy Metrics <ul style="list-style-type: none">• 2 Public Workshops	March 2022 – September 2022
CEC Pre-Rulemaking Workshops <ul style="list-style-type: none">• 9 Public Workshops• https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-BSTD-01	March 2023 – September 2023
CEC Released Draft Express Terms	November 2023
CEC released 45-day Rulemaking Language	March 29, 2024



2025 Cycle Participation

Stakeholder Participation

- Over 60 different stakeholder groups participated
- Groups included:
 - Energy Consulting
 - Trade Groups
 - Engineering/Architecture Firms
 - Manufacturers
 - Building Industry
 - Environmental
 - ADU Advocates
 - Labs





2025 Energy Code Work To Come

Milestones	Timelines
Rulemaking 45-Day Public Comment Period	March 29, 2024 – May 13, 2024
Three-Day Lead Commissioner Hearings	April 16, 2024 – April 18, 2024
Rulemaking 15-Day Comment Period	June 2024
Adoption of 2025 Energy Code	August 14, 2024
Building Standards Commission Approval of 2025 Energy Code	December 2024
Manuals, Software, and Forms Updates	July 2024 – March 2025
2025 Energy Code Effective Date	January 2026



2025 Energy Code Senior Staff Contacts

- **Javier Perez** – Project Manager
- **Payam Bozorgchami** – Technical Lead, Envelope, Additions and Alterations, ADUs
- **Haile Bucaneg** – Covered Process, Demand Response, Nonresidential and Residential ACM
- **Muhammad Saeed** – Solar Photovoltaic and Energy Storage Systems
- **Bach Tsan** – HVAC Systems, Refrigeration
- **Michael Shewmaker** – Supervisor, Standards Development Unit
- **Gypsy Achong** – Branch Manager, Building Standards
- **Email Convention at the Energy Commission:**
firstname.lastname@energy.ca.gov



2025 Building Energy Efficiency Standards (Title 24, Part 6)

Proposed Changes to Part 1



Joe Loyer, Senior
Mechanical
Engineer

April 16, 2024



No or Minor Proposed Changes

- Section 10-101 - No Changes
- Section 10-103 - Clarifications only
- Section 10-104 - Clarifications only
- Section 10-105 - No Changes
- Section 10-106 - No Changes
- Section 10-107 - No Changes
- Section 10-108 - No Changes
- Section 10-111 - No Changes
- Section 10-112 - No Changes
- Section 10-113 - No Changes
- Section 10-114 - No Changes



Section 10-102 Definitions

- Energy Budget – New Definition
- Long-term System Costs (LSC) – New Definition
- Source Energy – New Definition
- Data Registry – Minor changes to definition
- Triennial Code – New Definition
- New definitions for the new Energy Code Compliance (ECC) Program in Section 10-103.3:
 - ECC-Provider
 - ECC-Rater
 - ECC-Rater Company
 - Exemplary ECC-Rater
- Deleted definitions:
 - HERS
 - HERS Provider
 - HERS Rater



Sections 10-103.1 and 10-103.2 ATTCP Provider Quality Assurance

Sections Affected	Changes
<p data-bbox="191 478 1133 614">Section 10-103.1(c)3F – Lighting ATTCP</p> <p data-bbox="191 664 1235 799">Section 10-103.2(c)3F – Mechanical ATTCP</p>	<p data-bbox="1304 478 1643 535">2022 Code:</p> <ul data-bbox="1304 578 2331 721" style="list-style-type: none">• Requires Provider to perform shadow audit of ATT at the job-site <p data-bbox="1304 763 2025 821">2025 Proposed Change:</p> <ul data-bbox="1304 863 2331 1278" style="list-style-type: none">• Adds alternative where Provider can perform shadow audit of ATT at a Provider training facility• Removes building department surveys as a Provider QA measure

Proposed Changes related to the ATTCP and HERS (ECC) Requirements

Includes various sections in Part 6 and the Reference Appendix





Duct Leakage Test Sections Affected

Sections Affected

Section 120.4(g)1 – Nonresidential and Hotel/Motel New Construction

Section 141.0(b)2Dii – Nonresidential and Hotel/Motel Alterations

Section 160.3(c)2Hi – Multifamily New Construction MF Common Area

Section 180.2(b)2B – Multifamily Alterations, Common Area

NA2.1 – Nonresidential, Multifamily, and Hotel/Motel HERS Duct Leakage Test

NA7.5.3 – Nonresidential, Multifamily, and Hotel/Motel Acceptance Testing for Air Distribution Systems



Duct Leakage Test Proposed Changes

Changes

2022 Code:

- Requires duct leakage test to be performed by both a certified ATT and a HERS Rater

2025 Proposed Change:

- Requires duct leakage test to be performed by certified ATT



High Rise Multifamily Dwelling Unit Ventilation Systems

Sections Affected	Changes
<p data-bbox="191 478 1044 614">Section 160.2(b)2Biv – HERS FV&DT</p> <p data-bbox="191 664 1159 799">Section 160.3(d)2A – Acceptance tests</p>	<p data-bbox="1304 478 1643 535">2022 Code:</p> <ul data-bbox="1304 585 2280 799" style="list-style-type: none">• Requires dwelling unit ventilation tests to be performed by both a certified ATT and a HERS Rater <p data-bbox="1304 849 2025 906">2025 Proposed Change:</p> <ul data-bbox="1304 956 2331 1270" style="list-style-type: none">• Requires dwelling unit ventilation tests to be performed by HERS Rater (ECC Rater)• Adds clarification that NA1.9 exists



High Rise Multifamily Dwelling Unit Enclosure Leakage Test

Sections Affected	Changes
<p data-bbox="191 478 1121 614">Section 160.2(b)2Aivb2 – HERS FV&DT</p> <p data-bbox="191 664 1184 799">Section 160.3(d)2B – Dwelling unit enclosure leakage acceptance test</p>	<p data-bbox="1304 478 1643 535">2022 Code:</p> <ul data-bbox="1304 578 2331 799" style="list-style-type: none">• Requires enclosure leakage test to be performed by both a certified ATT and a HERS Rater <p data-bbox="1304 849 2025 906">2025 Proposed Change:</p> <ul data-bbox="1304 949 2344 1270" style="list-style-type: none">• Requires enclosure leakage test to be performed by HERS Rater (ECC Rater)• Adds clarification that NA1.9 exists



Acceptance Tests Technicians Alternative Procedure

Sections Affected	Changes
<p>NA1.9 – Acceptance test technicians alternative procedure</p>	<p>2022 Code:</p> <ul style="list-style-type: none">• Allows the HERS FV&DT in NA2 to alternatively be performed by a certified ATT with approval from the enforcement agency <p>2025 Proposed Change:</p> <ul style="list-style-type: none">• Removes condition that the enforcement agency must approve

Section 10-103.3

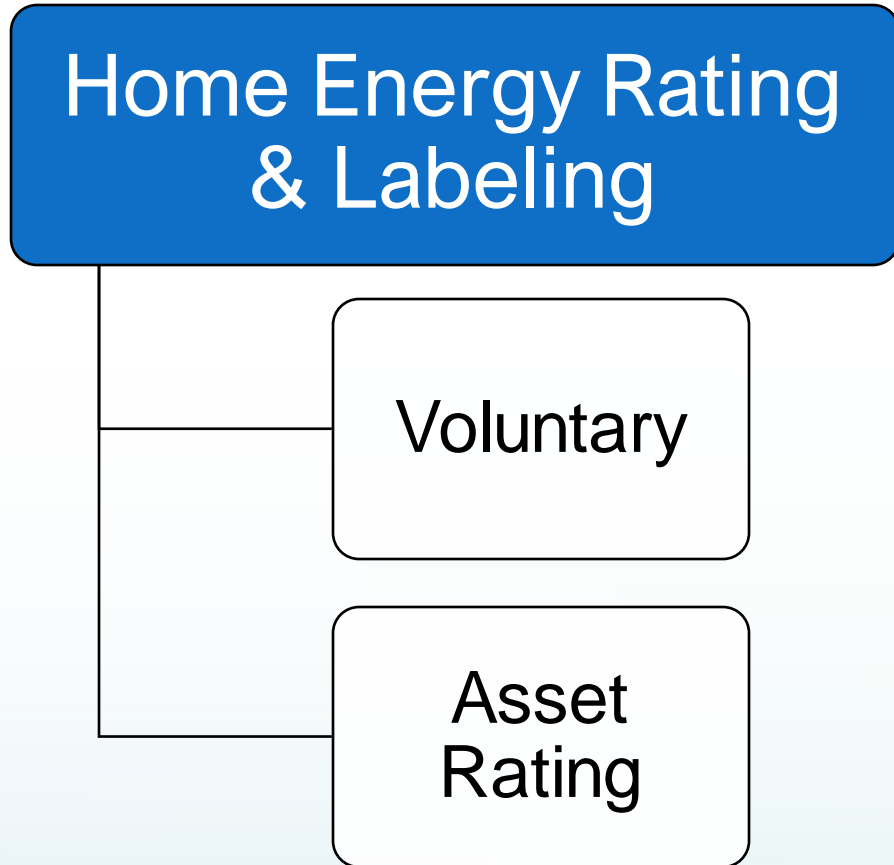
Administrative Procedures for the Energy Code Compliance Program



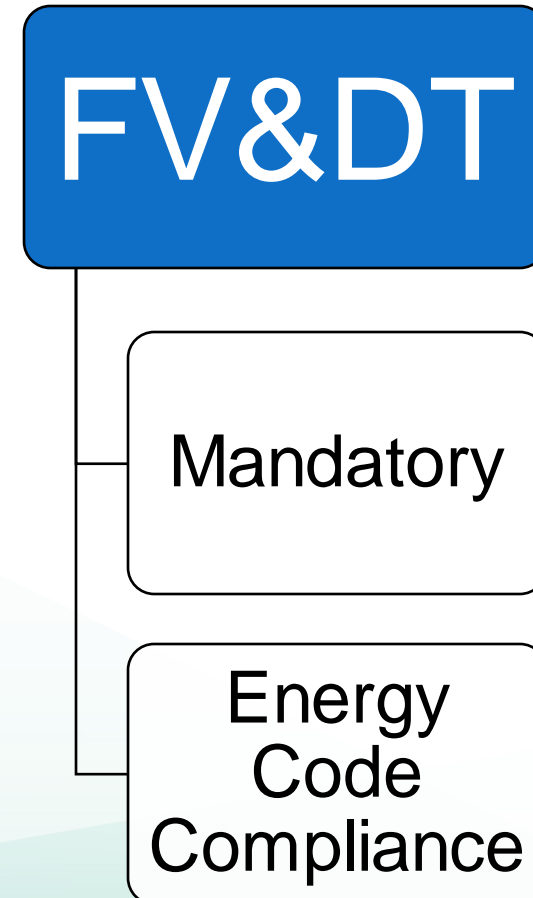


Two Separate Programs

Title 20 - HERS Regulations



Title 24 – Energy Code





Section 10-103.3 ECC Program

- (a) Scope
- (b) General Provision
- (c) ECC-Provider Approval
- (d) ECC-Provider Responsibilities
- (e) ECC-Rater Certification and Responsibilities
- (f) ECC-Rater Company Certification and Responsibilities
- (g) Prohibition from Practice and Re-Entry
- (h) Appeal to the Commission



Section 10-103.3(a)

Scope

- Establishes the program name: Energy Code Compliance (ECC) Program
- Protects consumers from poor construction by verifying compliance with the Energy Code for new construction including:
 - Newly constructed buildings
 - Additions and alterations to existing buildings
- Applies to Providers, Raters, and Rater Companies in the performance of FV&DT services



Section 10-103.3(b)

General Provisions

- Conflict of Interest (COI)
 - Prohibition of COI
 - Independent and Third-Party
 - Declaration of Separation of Services
 - Additional Prohibitions
 - Consumer Information Document for Homeowners
 - Summary of Results for Homeowners
 - Rater of Record
 - Use of Registered Certificates
 - Conflicted Data
- Prohibition on False, Inaccurate, or Incomplete Information



Section 10-103.3(c)

ECC-Provider Approval

- Approval Process
- Confidential Information
- Full Application
- Triennial Application
- Application for Remediation
- Updated Application
- Post-Approval Amendments
- Conditions of Approval
- Executive Director Rejection of Decertified Provider Application



Section 10-103.3(d)

ECC-Provider Responsibilities

- Rater and Rater Company Training and Certification
 - **NEW** - Declarations of Rater Company Separation of Services
- Quality Assurance
- Queries and Complaints
- Rater and Rater Company Progressive Discipline
- Data Recording, Retention, and Reporting
- Responses to Commission Requests for Data
- Data Registry Requirements
- No Approved Providers
- Provider Discipline



Section 10-103.3(e) ECC-Rater Certification & Responsibilities

- Certification
- Required Conduct
- Failure to Adhere to Required Conduct
- Appeal and Reconsideration of Discipline



Section 10-103.3(f)

ECC Rater Company Certification & Responsibilities

- Certification
- Required Conduct
- Failure to Adhere to Required Conduct
- Reconsideration of Discipline



Section 10-103.3(f)2Diii

Declaration of Separation of Services

Intent: Additional services while maintaining 3rd party independence.

1. Maintaining 3rd party independence
2. Qualified persons to provide additional services
3. Qualified persons to sign as Responsible Person
4. Submitted to the Provider



Section 10-103.3(g)

Prohibition from Practice and Re-Entry

- Applies to Raters, Rater Companies, and Providers.
- Prohibition from practice and re-entry once decertified.
- Performing FV&DT
- Registering Compliance Document
- Accepting data from decertified entities
- Re-Entry



Section 10-103.3(h) Appeal to Commission

Procedures to Appeal to the Energy Commission regarding a decertification.

- Written appeal
- Submission of statement and evidence
- Commission Consideration of Appeal



Future Recommendations

- Recommendations outside the scope of the 2025 Energy Code Rulemaking
- Stakeholder Engagement Planning
- Interested parties are invited to submit recommendations and contact information directly to Joe Loyer at Joe.Loyer@energy.ca.gov



Questions?



15-minute Break

We will resume at _____



Section 10-109(c)1 Compliance Manager

Guidelines for the simulation and compliance rule implementation software developed by the Energy Commission and third-party software.

- Standard design.
- Use of identified metrics.
- Use of climate zones.
- Alternative Calculation Method Reference Manual.



Section 10-109(k) PV + Battery Cost Effectiveness Determinations

Determinations

10-109(k): Allows CEC to determine that PV system requirements do not apply where public agency rules cause cost effectiveness analysis to not hold for the building.

Existing 2022 Standards	Proposed 2025 Standards
New and revised applications require CEC business meeting for approval	<ul style="list-style-type: none">• Revised applications are not required if the CEC finds that conditions have not changed in a way that would potentially alter previous determination/approval.• Prior applicants shall assist CEC in obtaining information regarding current public agency rules upon request



Section 10-110

Procedures for Consideration of Applications

Add the following applications to the approval process in Section 10-110:

- Section 10-103.3: ECC Provider
- Section 10-116: Third Party Compliance Software Applications



Section 10-115 Community Solar and Battery Storage Systems

10-115(a)6: Location of Community shared solar electric generation system and/or community shared battery energy storage system

Existing 2022 Standards

Location: Systems shall be located on a distribution system of the load serving entity that is providing service to the participating buildings.

Proposed 2025 Standards

Clarify that a distribution system will be defined as having an interconnection voltage < 100 kV.



Section 10-116

Third Party Alternative Calculation Method Compliance Software

- Application – Submitted by compliance software vendor.
- Approval – Process of reviewing and approving compliance software.
- Software updates – Revisions made to alternative calculation method compliance software.
- Expiration – Occurs when newer versions of the compliance software are approved.
- Decertification – Process of withdrawing approval of compliance software.



Questions?



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Lunch

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2025 Building Energy Efficiency Standards (Title 24, Part 6)

Proposed Changes to Sections 100 and 110



Presenter(s): Haile Bucaneg, Senior Mechanical Engineer

Date: April 16, 2024



Scope – Buildings Covered

Section 100.0(a) – Buildings covered.

- Occupancy group L – Adding laboratory suites to covered buildings.
- Clarify exception 2.



Scope – Covered Processes

Section 100.0(e)2F – Covered processes.

- Update applicable sections to include Sections 120.3 and 141.1.
- Update the list of mandatory sections applicable to covered process to include Sections 110.2 and 120.3.
- Remove note – non-regulatory language.



Scope – Application of Standards

Table 100.0-A Application of Standards.

- Added sections.

Occupancies	Mandatory	Additions/Alterations
Nonresidential, And Hotels/Motels	120.10	N/A
Covered Processes	120.3	110.2, 120.3



Definitions – Occupancy L and Laboratory

Section 100.1 Definitions.

- Nonresidential buildings updated to include Occupancy L.
- Definition for laboratory.
- Definition for laboratory suite.



Definitions – Healthcare Facilities

Section 100.1 – Definitions and rules of constructions.

- Healthcare facility definition updated to clarify that certain clinics built within a healthcare facility are considered a healthcare facility.



Calculation of Energy Budgets – Definitions

Section 100.1 – Definitions and rules of constructions.

- Energy budget definition updated to include Long-term system cost LSC and Source Energy metrics.
- Long-term system cost (LSC) added. LSC Does not represent a prediction of individual utility bills.
- Source Energy updated.
- Time Dependent Valuation Energy definition removed.



Calculation of Energy Budgets

Section 100.2 – Calculation of energy budgets.

- Long-term system cost (LSC).
 - LSC hourly factors.
 - Vary by energy type and climate zone.
 - Residential and nonresidential.
 - Newly constructed buildings, additions, and alterations.
- Source Energy.
 - Source Energy hourly factors.
 - Vary by energy type and climate zone.
 - Residential and nonresidential.
 - Newly constructed buildings.



Calculation of Energy Budgets – JA3

Appendix JA3 – Energy budget.

- Provides summary of LSC and Source Energy
 - Energy types: Electricity (\$/kWh), Natural Gas (\$/Therm), Propane (\$/Therm)
 - Climate zone and building type



Controls for Heat Pumps with Supplementary Heaters



Section 110.2(b) – Controls for Heat Pumps with Supplementary Heaters

Section 110.2(b) – Controls for heat pumps with supplementary heaters, for non-residential and multifamily buildings

- Added language establishes that supplementary heat control requirements for non-residential and multi-family buildings are separate from requirements for single family residential buildings
- Requirements for non-residential and multifamily buildings are described in section 110.2(b)
- Requirements for single family residential buildings are described in section 150.0(h)7
- Added exception to 110.2(b) for single family residential buildings that comply with either Section 150.0(h)7 or 150.0(i)2 without the use of exceptions



Cooling Towers





Cooling Tower – Blowdown Control Requirements

Section 110.2(e) Open and closed-circuit cooling towers.

- Remove flow based control option.
- Update parameters for blowdown.
 - Conductivity
 - Total dissolved solids
 - Total alkalinity
 - Calcium hardness
 - Chlorides
 - Sulfates
 - Silica
 - Langelier saturation index



Cooling Tower – Prescriptive Cooling Tower Efficiency

Section 140.4(h)5 and 170.2(c)4Fv Cooling tower efficiency.

- Update minimum cooling tower efficiency based on climate zone.

Climate Zone	1	2	3	4	5	6	7	8
Minimum Efficiency (GPM/hp)	42.1	70	60	70	70	80	80	80

Climate Zone	9	10	11	12	13	14	15	16
Minimum Efficiency (GPM/hp)	80	80	60	70	80	60	80	42.1



Reference Appendices – Cooling Tower Conductivity Controls

NA7.5.18 Cooling Tower Conductivity Controls.

- Construction inspection.
- Functional testing.



Questions?



Space Conditioning Equipment Efficiency



Section 110.2 – Space Conditioning Equipment – Efficiency

Section 110.2(e) Efficiency.

- Update minimum efficiency values where necessary.
- Remove redundant tables.



Section 110.3 – Mandatory Requirements for Service Water-Heating Systems and Equipment

- **Section 110.3(c)7a Backup Heat**
 - New requirement for HPWH backup heat if compressor cutout temperature is below winter median of extremes
- **Section 110.3(c)7b Ventilation**
 - New ventilation requirements for HPWH installations includes the following:
 - Minimum installation or communicating space volume.
 - Minimum Net Free Area (NFA) for the openings
 - Requirements for ducts if ducted
 - Alternatively, a method certified by the manufacturer to meet the ventilation requirements of Section 110.3(c)7



Section 110.4 – Mandatory Requirements for Pool and Spa Systems and Equipment

- **Section 110.4(a) Certification by manufacturers**
 - Various reorganizing and clean up existing code language for pool heater instructions
 - Delete 110.4(a)4 Electric resistance heating. Requirement reorganized into Section 110.4(c) Heating Source Sizing
- **Section 110.4(b)1 Heating Equipment**
 - New section referencing applicable testing standards for heat sources
- **Section 110.4(b)2 Piping**
 - Modify pipe requirement between filter and heater or connections from 36 inches to 18 inches of horizontal or vertical



Section 110.4 – Mandatory Requirements for Pool and Spa Systems and Equipment (continued)

- **Section 110.4(b)3 Covers**
 - Clean up for clarity
- **Section 110.4(c) Heat Source Sizing**
 - New requirement for the primary pool heater. Applicable to single family, multifamily and nonresidential applications when a new pool heater is installed
 - Requires either a solar swimming pool and/or spa heating system, a heat pump pool heater as the primary heating system, or a heating system that derives heating energy from on-site renewable or recovered energy
- **Appendix JA16 – Criteria for Pool and/or Spa heating**
 - New appendix to support the heat source sizing requirement. Include sizing method for heat pump pool heater



Section 110.4 – Mandatory Requirements for Pool and Spa Systems and Equipment (continued)

- **New Exceptions to Section 110.4(c):**
 - **Exception 1 to section 110.4(c):** Portable electric spas compliant with the Appliance Efficiency Regulations.
 - **Exception 2 to section 110.4(c):** Buildings with existing heating systems or equipment for pools and/or spas.
 - **Exception 3 to section 110.4(c):** A pool/and or spa that is heated solely by a solar swimming pool or spa heating system.
 - **Exception 4 to section 110.4(c):** A heating system used solely for permanent spa in existing building with gas availability
 - **Exception 5 to section 110.4(c):** A heating system used solely for permanent spa in existing building with inadequate solar access



Section 110.8 – Roofing Products Solar Reflectance and Thermal Emittance – Solar Reflectance Index

Section 110.8(i)3 Solar Reflectance Index

- Reference ASTM E1980-11 for SRI calculations.



Section 110.12 – Mandatory Demand Responsive Controls

Section 110.12(a) - Demand Responsive Controls

- Clarify DR controls communicate in a wired or wireless “communication protocol”.
- Clarify “demand response signal” for the situation when it is disabled or unavailable.

Section 110.12(c) - Demand Responsive Lighting Controls

- Clarify demand responsive lighting control requirements for the buildings and the spaces.
- These changes apply to spaces subject to Nonresidential Section 130.1(b) and Multifamily Section 160.5(b)4B.

Section 110.12(e) – Demand Responsive Controlled Receptacles

- Clarify demand responsive controlled receptacles requirement.
- These changes apply to spaces subject to Nonresidential Section 130.5(d) and Multifamily Section 160.6(d).



Questions?



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Thank you for participating in today's hearing!

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- **Public Assistance with Participation**
Public Advisor - Mona Badie
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