

San Diego Chapter ASPE
presents



California Building Standards Commission



*CAL*Green®



Introduction

Michael Nearman

Deputy Executive Director
California Building Standards Commission



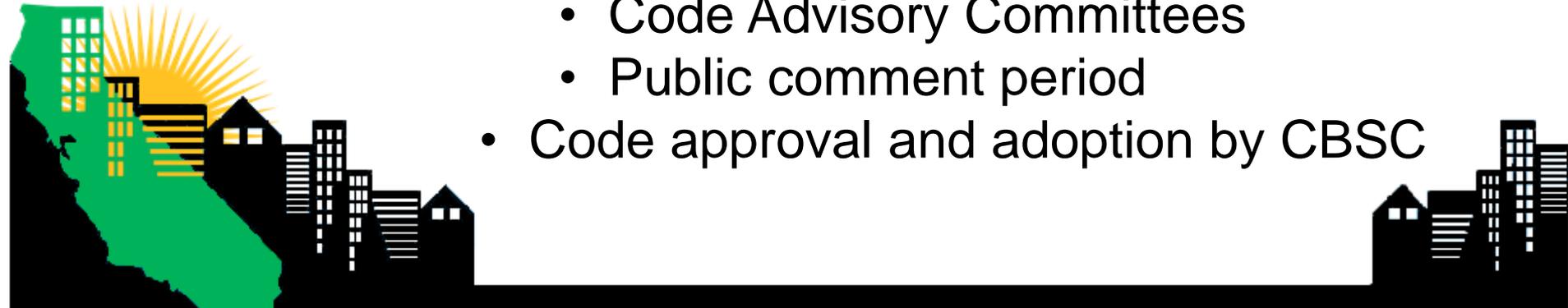
Workshop Goals

- CBSC Overview
 - Rulemaking Processes
- History of CALGreen
- CALGreen Plumbing & Mechanical
- 2015 Triennial Code Adoption Cycle
- Q&A



California Building Standards Commission

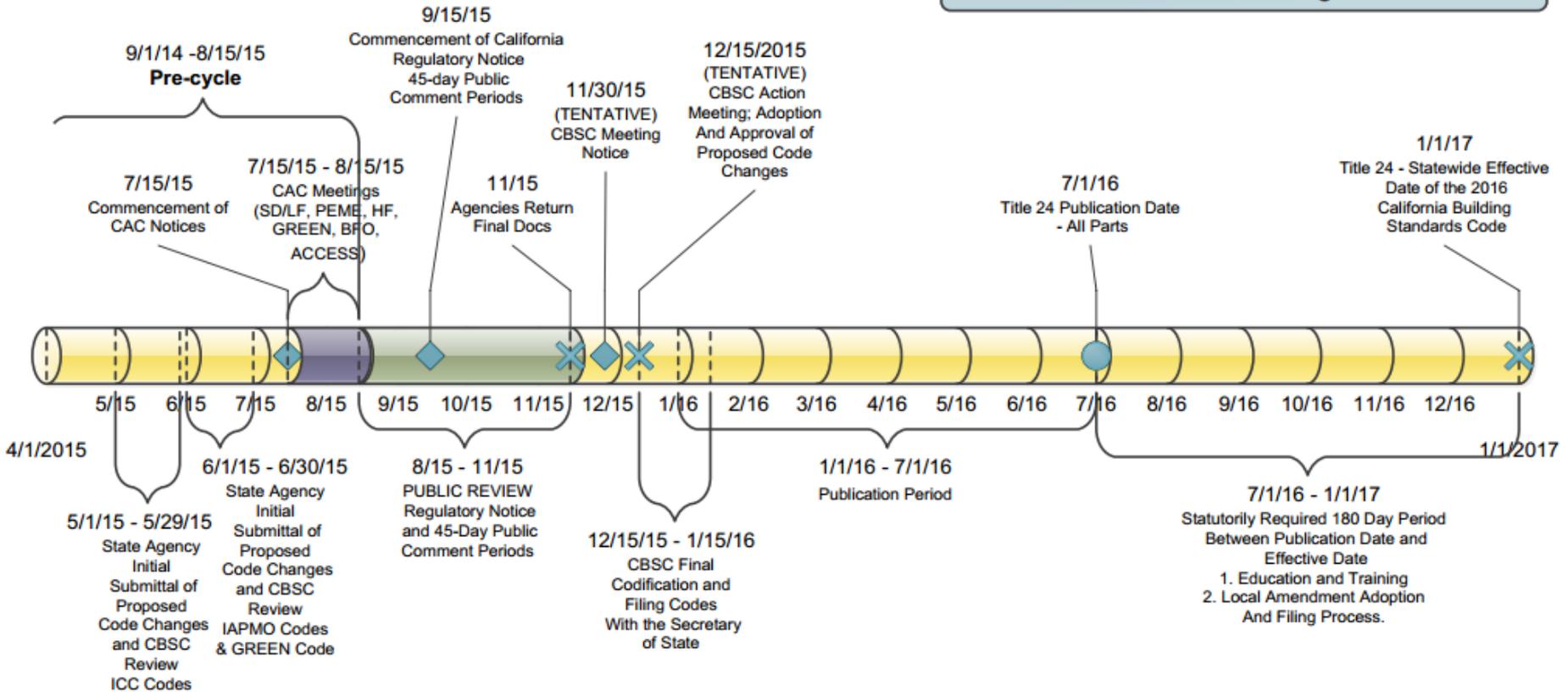
- CBSC Overview
 - Administration and publication of Title 24
 - Triennial and Intervening Code Cycles
 - Supplements
 - Errata
 - Rulemaking Processes
 - Proposing state agencies
 - Public participation
 - Code Advisory Committees
 - Public comment period
 - Code approval and adoption by CBSC



January 1, 2017 Effective Date

2015 Triennial Code Adoption Cycle

For the 2016 California Building Standards Code



CAC Committees:

- SDLF – Structural Design/ Lateral Forces
- PEME – Plumbing, Electrical, Mechanical & Energy
- HF – Health Facilities
- GREEN – Green Building
- BFO – Building, Fire & Other
- ACCESS – Accessibility

* All dates are subject to change

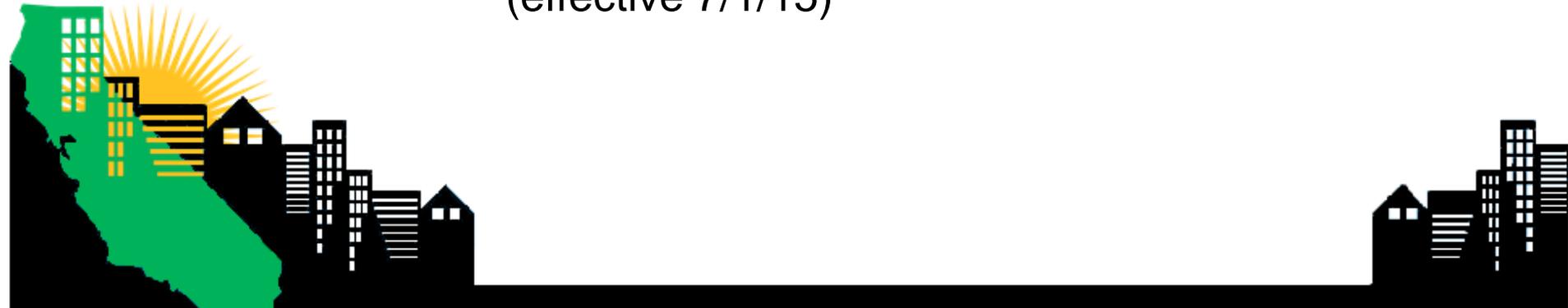
History Note

- Governor directs state agencies in 2007/2008 to develop green building standards for residential, commercial, and public building construction for the 2010 code adoption process;
- EO S-20-04: Reduce grid-based electricity by 20% in state-owned buildings by 2015; reduce associated greenhouse gas emissions;
- AB 32: Reduce GHG emissions to 1990 levels by 2020;



History Note

- State agencies with authority to develop building codes worked together with industry stakeholders to develop the first-in-the-nation statewide green building standards;
- Result- CALGreen:
 - » 2008 Voluntary Code (effective 8/1/09)
 - » 2010 First Mandatory Green Code (effective 1/1/11)
 - » 2013 Mandatory Green Code with increased measures (effective 1/1/14)
 - » 2013 Intervening Code Adoption Cycle Supplement (effective 7/1/15)



History Note

- Enforced like other California codes;
- Does not require third party inspection or verification;
- Maintains current relationship between enforcing agencies and builders;
- Uniformity and Consistency:
 - Jurisdictions using different programs
 - Coordinated with other California codes



History Note

- In his recent inaugural address, Governor Brown called for the following by 2030:
 - Increase in renewable electricity sources from one-third to 50 percent;
 - Reduce petroleum use in vehicles by 50 percent, and
 - Double the efficiency of existing buildings.



Introduction

Enrique M. Rodriguez

Associate Construction Analyst
California Building Standards Commission



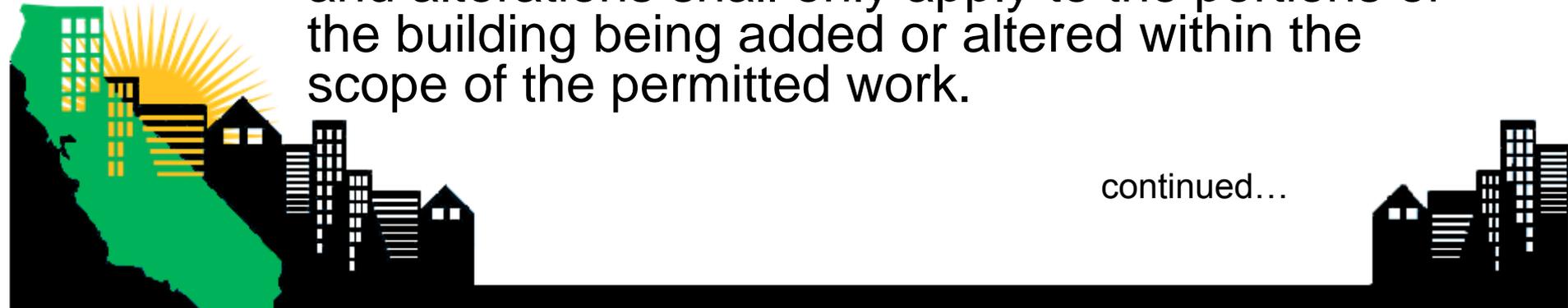
Chapter 3 - Green Building

Scope 2013:

301.3 Nonresidential additions and alterations **[BSC].**

The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

continued...



Chapter 3 - Green Building

301.3

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings **[N]** or to additions and alterations **[A]**. When the code section applies to both, no banner will be used.



Chapter 3 - Green Building

New section references Civil Code Section 1101.3 for non-compliant plumbing fixtures

- Mixed Occupancy Buildings
 - Shall comply with appropriate requirements for each separate occupancy type
- Phased Projects
- Voluntary Tiers



Chapter 5- Nonresidential

- Mandatory Measures
 - Planning and Design – Division 5.1
 - Energy Efficiency – Division 5.2
 - Water Efficiency and Conservation – Division 5.3
 - Material Conservation and Resource Efficiency – Division 5.4
 - Environmental Quality – Division 5.5



Chapter 5- Division 5.2

Energy efficiency mandatory measures regulated by the California Energy Commission

- Mandatory provisions are found in Part 6 of Title 24

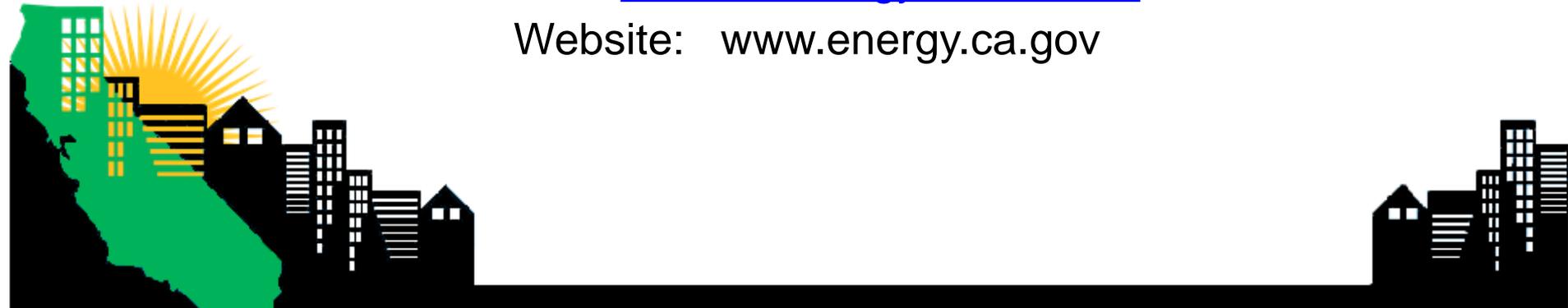
California Energy Efficiency Hotline

Telephone: (916) 654-5106

1-800-772-3300 (toll free in CA)

Email: title24@energy.state.ca.us

Website: www.energy.ca.gov



Chapter 5- Division 5.3 Indoor Water Use

Preface:

**Please note the following
effective dates throughout
this presentation:**

Left column:

2013 Current (effective 1/1/2014)

Right column:

2013 Intervening (effective 7/1/2015)



Chapter 5- Division 5.3 Indoor Water Use

2013 Current

- Separate water submeters and submeters for subsystems- also applies to additions over 50,000 sq ft
- “*Water Reduction*”: Comply with reduced flow rates in table 5.303.2.3 with an exception for performance 20% reduction via baseline table and also applicable to areas of additions and alterations.

2013 Intervening

- No Change
- Entire section and table were repealed along with the performance approach.



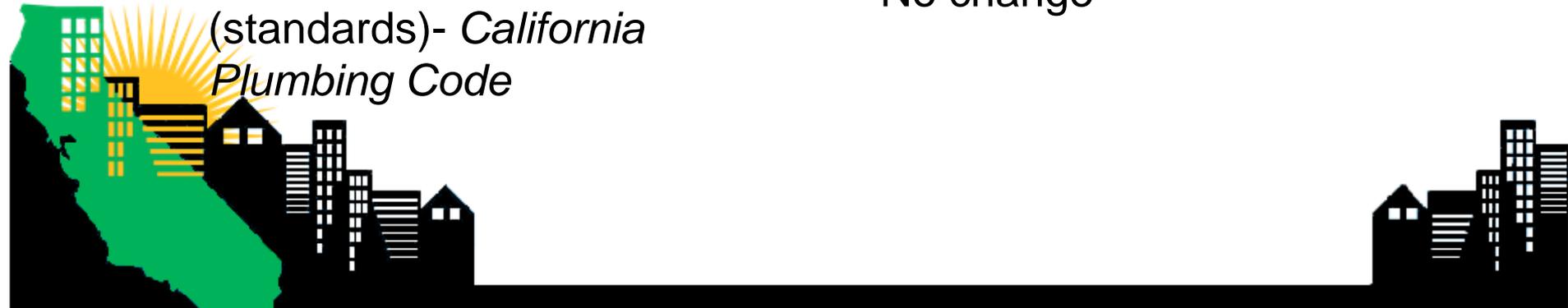
Chapter 5- Division 5.3 Indoor Water Use-Continued

2013 Current

- “Water conserving plumbing fixtures and fittings”:
Prescriptive reduced flow rates for: Water Closets, Urinals, and Showerheads
- Waste water reduction-
new construction only
- Plumbing fixtures and fittings
(standards)- *California
Plumbing Code*

2013 Intervening

- No change
- ***New section*** “Faucets and Fountains” 5.303.3.4 that gives prescriptive only flow rates
- Section was repealed
- No change



Chapter 5- Division 5.3

Outdoor Water Use

2013 Current

- Water budget- applies to new building, additions or alterations
- Separate submeter for outdoor potable water use (with clarifications) area 1,000-5,000 sq ft- applies to additions or alterations

2013 Intervening

- No Change
- No Change



Chapter 5- Division 5.3

Outdoor Water Use

2013 Current

- Irrigation design 1,000-2,500 sq ft applies to additions or alterations
- Irrigation controllers - weather or soil moisture-based irrigation controllers

2013 Intervening

- No Change
- No Change



Chapter 5- Division 5.4 Building Maintenance and Operation

2013 Current

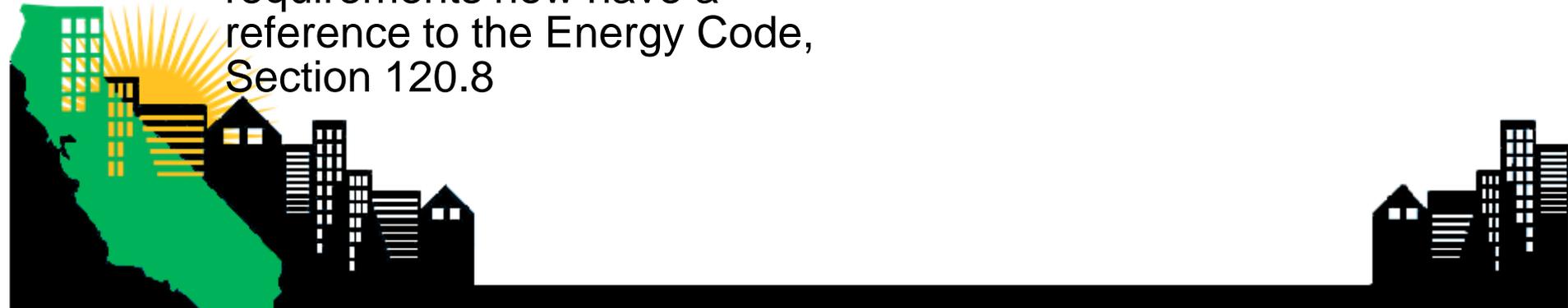
- Building commissioning for new buildings, 10,000 sq ft and over with added exceptions for
 - Dry warehouses
 - Some tenant improvements

Clarified requirements for new construction only

Note: All energy related requirements now have a reference to the Energy Code, Section 120.8

2013 Intervening

- Further clarifies the exception for dry warehouses with added exceptions for open parking garages
- ***New Informational Notes:*** for IAS AC476 for CX certification criteria and functional performance testing



Chapter 5- Division 5.4 Building Maintenance and Operation

2013 Current

- Testing and adjusting of systems for new buildings less than 10,000 sq ft or for new buildings or new systems designed to serve an addition or an alteration
 - HVAC balancing and reporting
 - Operation & Maintenance (O&M) manual and inspections/reports

2013 Intervening

- No change

- No change

- No Change



ENVIRONMENTAL QUALITY

Chapter 5- Division 5.5

Pollutant Control

2013 Current

- Temporary ventilation if HVAC is used for temporary construction ventilation
(replace filters)- areas of additions or alterations
- Covering of duct openings and protection of equipment during construction

2013 Intervening

- No change

- No change



Chapter 5- Division 5.5 Pollutant Control

2013 Current

- Filters (MERV 8)
- Filters Referenced Standards with Exception for small, H.E. ductless units and existing mechanical equipment
- Filter labeling requirements

2013 Intervening

- No Change
- No change
- No change



Chapter 5- Division 5.5

Indoor Air Quality

2013 Current

- Outside air delivery
 - Ventilation- per Energy Code or Title 8
- CO² monitoring also applies to additions

2013 Intervening

- No change
- No change



Chapter 5- Division 5.5

Outdoor Air Quality

2013 Current

- Supermarket refrigerant
 - Leak reduction
 - Refrigerant piping
 - Valves
 - Refrigerated service cases
 - Refrigerant receivers
 - Pressure testing
 - Evacuation

2013 Intervening

- No change

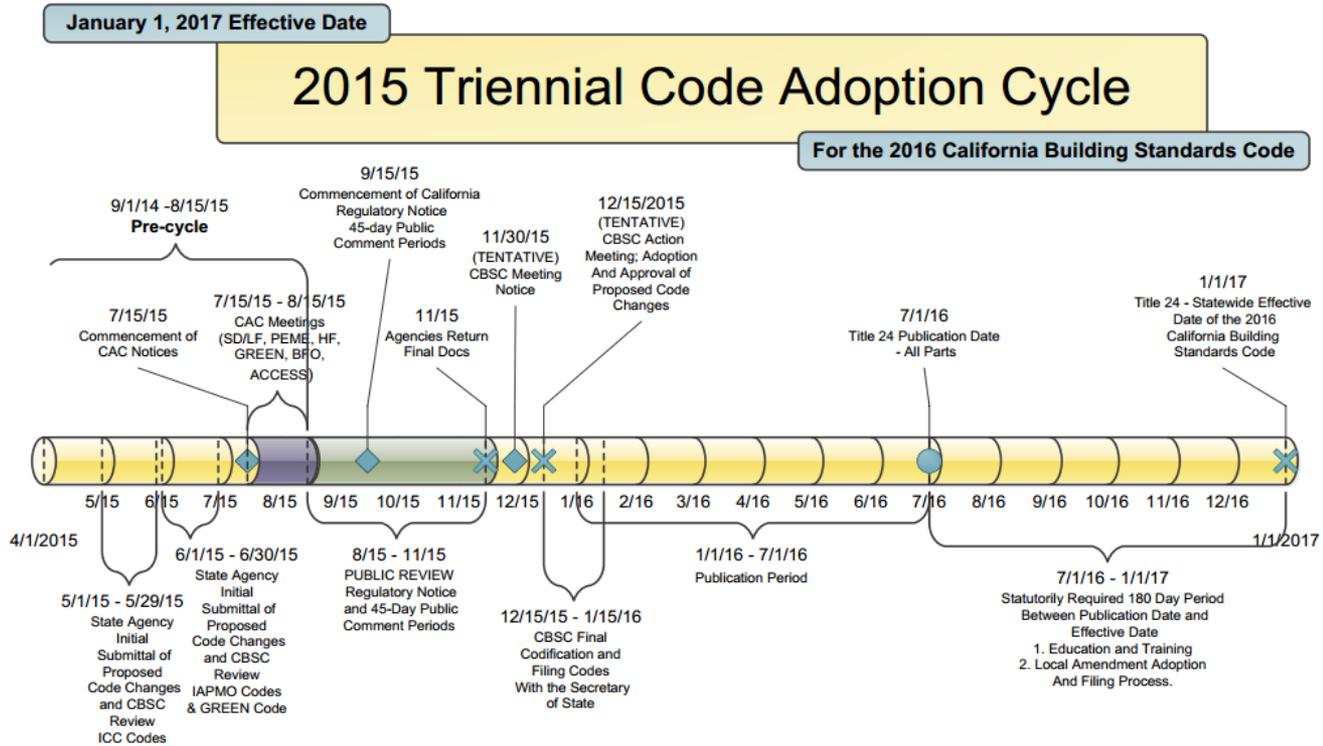


NONRESIDENTIAL VOLUNTARY MEASURES

- Appendix A5
 - The measures contained in the appendix are not mandatory unless adopted by a city, county, or city and county. Appendix provisions may also be used voluntarily by designers, builders, and property owners.
 - *CALGreen* Tier 1 and Tier 2 are intended for adoption by cities, counties, and cities and counties to help California meet its goals for greenhouse gas emission reduction.



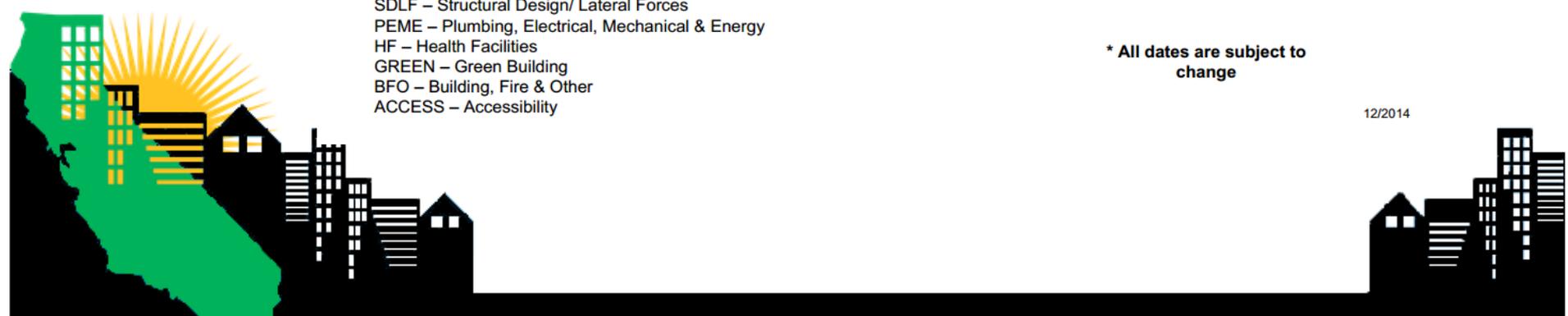
What's Next?



CAC Committees:

- SDLF – Structural Design/ Lateral Forces
- PEME – Plumbing, Electrical, Mechanical & Energy
- HF – Health Facilities
- GREEN – Green Building
- BFO – Building, Fire & Other
- ACCESS – Accessibility

*** All dates are subject to change**



California Building Standards Commission

- **Use the web! www.bsc.ca.gov**
 - Newly reformatted CBSC website for easier access to code information
 - Rulemaking Process
 - Code Cycles
 - Current Codes
 - Guidebooks and other resources
 - Information Bulletins
 - Meeting Notices



Home

Welcome to the California Building Standards Commission

2015 TRIENNIAL CODE ADOPTION CYCLE

CODE ZONE AHEAD **NOW UNDER WAY...**

CBSC is authorized by **California Building Standards Law** to administer the many **processes** related to the development, adoption, approval, publication, and implementation of California's building codes.

The **California Building Standards Code**, Title 24 serves as the basis for the design and construction of buildings in California. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and reliability are paramount to the development of building codes during each **Triennial and Intervening Code Adoption Cycle**.

California's building codes are published in their entirety every three years. Intervening Code Adoption Cycles produce Supplement pages half-way (18 months) into each triennial period. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle.

2015 Triennial Code Adoption Cycle

The 2015 Triennial Code Adoption Cycle will culminate with the publication of the 2016 California Building Standards Code, Title 24, California Code of Regulations. The 2016 Code will be published on or before July 1,

GOVERNOR [Visit His Webpage](#)

Edmund G. Brown Jr.

SECRETARY
California
Government
Operations
Agency

Marybel Batjer

ACTING DIRECTOR
Department
of General
Services

Esteban Almanza

BSC Executive Director
Jim McGowan

Current Code

- Click here to access all parts of the 2013 current code

Education & Outreach

- Click for Local Amendments Webinar
- Click for 2013 CALGreen Nonresidential Webinar
- Click for 2013 CALGreen Commissioning Webinar

Featured Links

- 2013 Current Code
- 2013 Intervening Cycle

Are there any questions?



Email: cbsc@dgs.ca.gov

Web: www.bsc.ca.gov

