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Stakeholder Meeting

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CALIFORNIA STATEWIDE
UTILITY CODES AND STANDARDS PROGRAM

Stakeholder Meeting for:
Nonresidential Envelope U-factors
Elevators Lighting & Ventilation
Escalators & Moving Walkways Speed Controls

May 7, 2014
11:00AM – 1:45PM

WEBINAR INFO
URL: <https://join.me/codes-standards>
Phone: (860) 970-0010
Access Code: 940-290-811 #

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Meeting Ground Rules

- Phone rules
 - Please mute your phone, unless you want to speak
 - Please do not place your phone on HOLD
 - Ask questions/comment by "chat" in WebEx or by voice
 - Press *6 to unmute your line
- We want to hear your thoughts
 - Supporting and opposing viewpoints are welcome
 - We may not be able to reach resolutions today
- When making comments
 - Clearly state your name and affiliation prior to speaking
- Notes and presentation material will be posted on our website www.Title24Stakeholders.com

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2:01 PM 5/7/2014

The screenshot shows a web browser window with the address bar containing <https://join.me/codes-standards>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The main content area displays a slide titled "Meeting Agenda" with a green leaf icon. The slide content is as follows:

11:00 - 11:15	Introduction: Overview of 2016 Title 24 Development; Summary of stakeholder outreach purpose and procedure
11:15 - 12:15	Nonresidential Envelope U-factors
12:15 - 12:30	BREAK
12:30 - 1:00	Residential and Nonresidential Elevators Lighting & Ventilation (Based on ASHRAE 90.1)
1:00 - 1:30	Nonresidential Escalators & Moving Walkways Speed Control (Based on ASHRAE 90.1)
1:30 - 1:45	Review and wrap-up, next steps

The slide is identified as "Slide 3 of 17" in the footer. The browser's taskbar at the bottom shows various application icons and the system clock indicating 2:03 PM on 5/7/2014.

The screenshot shows a web browser window with the address bar containing <https://join.me/codes-standards>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The main content area displays a slide titled "IOU Support for 2016 Title 24" with a green leaf icon. The slide content is as follows:

- The California Investor Owned Utilities (IOUs) are actively supporting the California Energy Commission (CEC) in developing the state's Building Energy Efficiency Standard (Title 24)
- Their joint intent is to achieve significant energy savings through the development of reasonable, responsible, and cost-effective code change proposals for the 2016 code update, and beyond
- As part of the IOU effort, at the request of the CEC, we are hosting a stakeholder meeting to get industry input and feedback on our code change proposals

The slide is identified as "Slide 4 of 17" in the footer. The browser's taskbar at the bottom shows various application icons and the system clock indicating 2:04 PM on 5/7/2014.

The screenshot shows a web browser window with the address bar containing <https://join.me/codes-standards>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The main content area displays a PowerPoint slide with the following text:

- IOUs will be sponsoring a public stakeholder meeting for each CASE topic
- All meetings can be attended remotely
- Please check www.Title24Stakeholders.com for information about meetings and CASE topic updates
 - May 8th: residential envelope measures
 - May 15th: residential and nonresidential lighting
 - May 20th: residential and nonresidential HVAC and water heating
 - May 21st: residential HVAC field verification & diagnostics, nonresidential economizer modifications

The slide footer indicates it is Slide 3 of 17 from a '2013 TRC PowerPoint Template'. The browser's taskbar at the bottom shows various application icons and the system clock set to 2:04 PM on 5/7/2014.

The screenshot shows a web browser window with the address bar containing <https://join.me/codes-standards>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The main content area displays a PowerPoint slide with the following text:

- Present overview of proposed code change for 2016 Title 24 Building Energy Efficiency Standards
- Review current code requirements and standard/best practices
- Present methodology and findings to date
 - Energy and Demand Impacts
 - Cost effectiveness
 - Specific assumptions for analyses
- Present proposed code requirements
- Solicit feedback from stakeholders
- Continue/begin a dialogue

The slide footer indicates it is Slide 6 of 17 from a '2013 TRC PowerPoint Template'. The browser's taskbar at the bottom shows various application icons and the system clock set to 2:05 PM on 5/7/2014.

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Stakeholder Meeting - Overview - May 7-13

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Request for Input

- IOU Team are requesting input from stakeholders
- We encourage stakeholders to respond by:
 - answers to specific questions
 - providing primary and secondary references (e.g., data, survey results, reports, etc.)
- Responses will help inform the IOU Team's code change proposal and the associated market and cost-effectiveness analyses
- For specific questions pertaining to topics presented today visit: <http://title24stakeholders.com/request-for-input/>
- Email responses to info@title24stakeholders.com

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Stakeholder Meeting - Overview - May 7-13

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Schedule: Key Dates for 2016 Code Change Cycle (tentative)

May 2014	IOU Stakeholder Meetings
June 2014	IOUs submit draft proposals to CEC
May - August 2014	CEC Staff Public Workshops
November 2014	IOUs submit final proposals to CEC
December 2014	CEC opens rulemaking
January 2015	CEC Releases 45-day Language
April 2015	CEC Releases 15-day Language
May 2015	CEC Adoption at Business Meeting
January 1, 2017	Effective date

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Warren-Alquist Act

- Enacted in 1974 (Assembly Bill 1575)
- Established California Energy Commission
- Instructed the CEC to establish building energy efficiency standards
 - Standards must be cost effective
 - CEC must report environmental impacts of proposed standards
- Established enforcement mechanism for building standards

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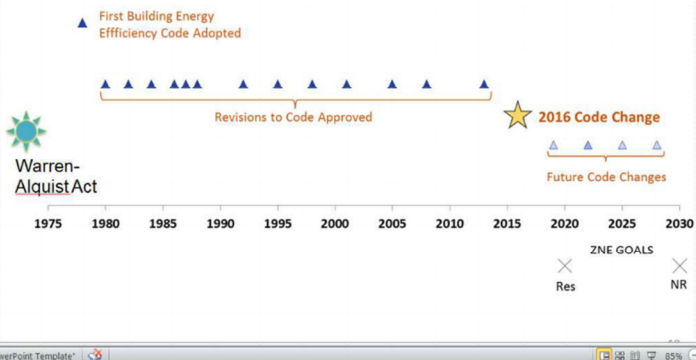
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Brief History of Title 24



▲ First Building Energy Efficiency Code Adopted

Revisions to Code Approved

★ 2016 Code Change

▲ Future Code Changes

Warren-Alquist Act

1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030

ZNE GOALS

× Res × NR

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General Structure of Title 24

only required for some equipment and building types

requirements for all buildings

Certification and Acceptance Requirements

Prescriptive Path
(additional measures)

OR

Performance Path
(model building energy performance)

+

Mandatory Measures
(required for all buildings)

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Types of Code Change

- **Mandatory Requirements**
 - The change would add or modify a mandatory measure
 - Mandatory measures must be satisfied whether the prescriptive or performance method is used to show compliance
- **Prescriptive Requirement**
 - The change would add or modify a prescriptive requirement that must be met when using prescriptive compliance approach
 - Prescriptive requirements become the “base case” energy budget that must be achieved if applicant is using performance method

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Types of Code Change – Continued

- **Performance Credit / Compliance Option**
 - The change would add or modify how an applicant achieves the required energy budget using the performance approach
 - May add new measure (e.g., solar PV system can be used to meet energy budget)
 - May modify existing rules (e.g., adjust energy credit for solar PV systems)
- **Modeling**
 - The change would modify the calculation methods used to calculate energy budget for compliance with the Standards under the performance approach
 - Modeling measures do not add new requirements or compliance options, they just modify the calculation methods used to determine compliance

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Requirements for a Successful Code Change

- **Mandatory and Prescriptive Requirements must:**
 - Be cost effective
 - Using CEC's Lifecycle Cost Methodology
 - Energy cost savings calculated using CEC's Time Dependent Valuation (TDV) factors
 - Be possible to implement using equipment that is readily available from multiple providers
 - *or that is reasonably expected to be available when the code goes into effect in January 2017*

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Lifecycle Cost (LCC) Methodology

- CEC establishes lifecycle cost methodology
- Key features of LCC methodology
 - Existing conditions:
 - If Title 24 Standard exists - 2013 Title 24 Standards
 - If no Title 24 Standard exists - current standard practices
 - Proposed conditions
 - Assume proposed code change is adopted
 - Period of Analysis
 - Res and nonresidential envelope: 30 years
 - All other nonresidential: 15 years

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Lifecycle Cost (LCC) Methodology (continued)

- Key features of LCC methodology (continued)
 - Incremental Costs, relative to existing conditions
 - Incremental installation cost
 - Incremental maintenance cost
 - *Design cost and cost of code verification not included in LCC analysis*
 - Use Time Dependent Valuation factors (established by CEC)
 - Energy savings factors for electricity, natural gas, propane
 - Cost savings factors for electricity and natural gas


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Questions?

Heidi Hauenstein
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(510) 482-4420 ext. 219

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5/7/2014

The image shows a screen capture of a web browser displaying a slide from a presentation. The browser's address bar shows the URL 'https://join.me/codes-standards'. The slide itself features a large orange question mark icon at the top, followed by the text 'Questions?'. Below this, the name 'Heidi Hauenstein' is listed, along with her email address 'hhauenstein@energy-solution.com' and phone number '(510) 482-4420 ext. 219'. The presentation software interface is visible, showing a menu bar with 'File', 'Home', 'Insert', 'Designs', 'Transitions', 'Animations', and 'Slide Show'. The status bar at the bottom of the presentation window indicates 'Slide 17 of 17' and '2013 TRC PowerPoint Template' at 85% zoom. The Windows taskbar at the very bottom shows the time as 2:12 PM on 5/7/2014.