



A STATEWIDE UTILITY PROGRAM

# Second Stakeholder Meeting for Residential and Nonresidential IAQ Topics

March 16, 2017

WEBINAR



A STATEWIDE UTILITY PROGRAM



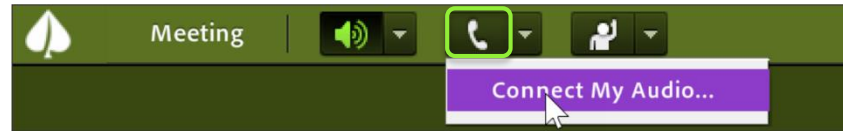
# Meeting Agenda

Time	Topic	Presenter
9:00 – 9:20	Introduction	Kelly Cunningham (PG&E)
9:20 – 10:35	Residential Indoor Air Quality (IAQ)	David Springer (Davis Energy Group)
9:20 – 11:50	Nonresidential Indoor Air Quality (IAQ)	Ryan Sit (Integral Group)
11:50 – 12:00	Review and wrap-up, next steps	Kelly Cunningham (PG&E)

## Hear and Be Heard!



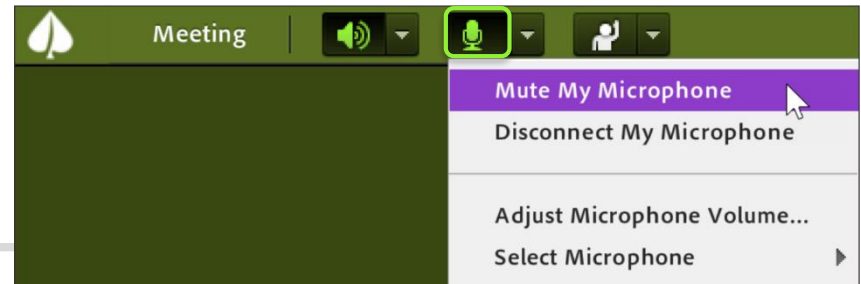
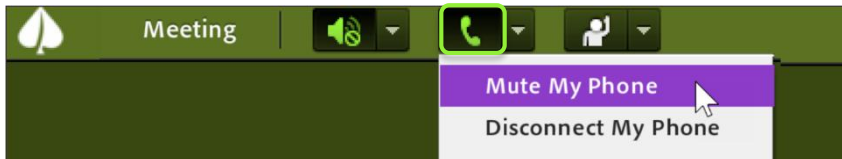
- Click the phone icon at the top of your screen, then follow the prompts



- If you connect via phone, mute your PC speakers to avoid feedback

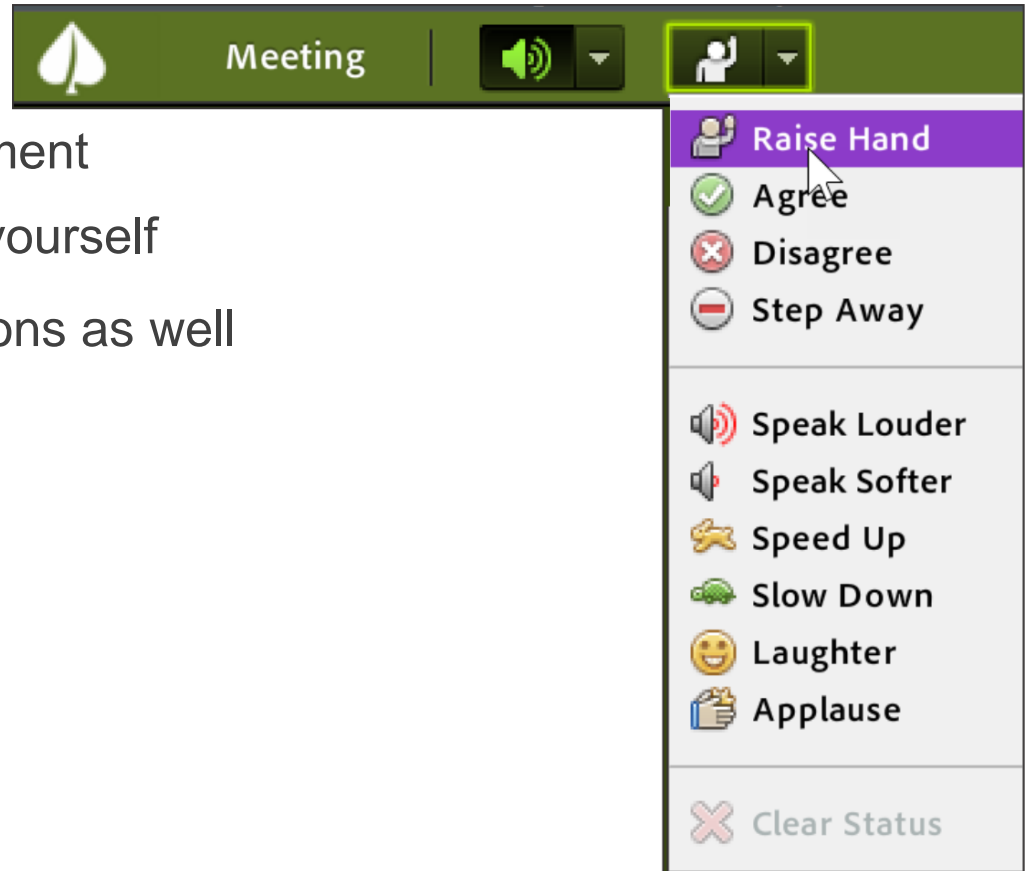


- Mute your phone or microphone to avoid contributing unwanted background noise — unmute yourself when you want to talk

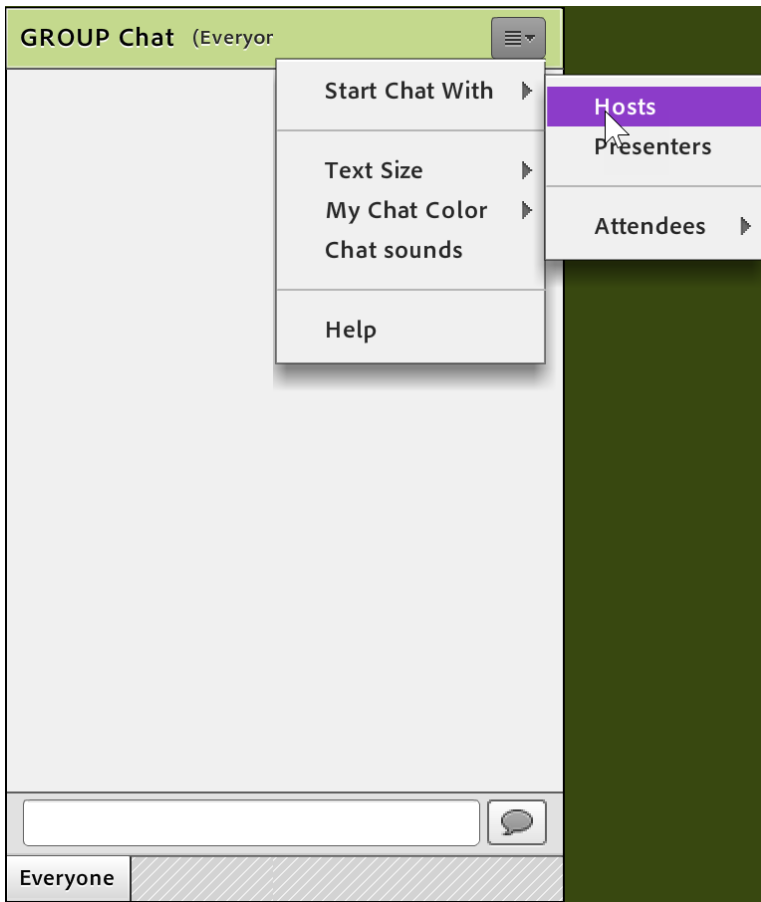


## Communicate with Icons

- Raise your hand
  - We'll call on you in a moment
  - Don't forget to “unmute” yourself
- Feel free to use the other icons as well



## Technical Support for the Meeting Room



### Tech support is standing by

- Use “Chat” (lower left of your screen)
- Direct your question or comment to “Hosts”
- Give us a moment to chat back

## Supporting Resources

- Click on links in the Downloads pod
- Use “tabs” to switch between general downloads and laboratory-specific downloads

Click on a “tab” to switch between views  
(It changes your view, but not others’)



## Statewide Utility Team Title 24, Part 6 Advocacy Support

- The Utilities support the California Energy Commission by proposing changes to the Building Energy Efficiency Standards that are:
- Feasible | Cost effective | Enforceable | Non-proprietary



## Statewide Utility Team Title 24, Part 6 Advocacy Support

- For information on the Energy Commissions' rulemaking process, visit:  
<http://www.energy.ca.gov/title24/2019standards>



## Objectives of Today's Discussion

Discuss and get input on:

- Code change proposals
- Technical and market feasibility
- Compliance and enforcement
- Cost effectiveness results (preliminary)
- Energy savings analysis (preliminary)

**YOUR PARTICIPATION WILL INFORM THE CODE CHANGE PROPOSALS!**



## Invitation to Participate

We want to hear from you

- Supporting and opposing viewpoints are welcome
- We may not be able to reach resolutions today
- There are no stupid questions
- Mute your phone, but do not place us on 'hold'
- Clearly state your name and affiliation prior to speaking
- Speak loudly (without shouting)

**NOTES & PRESENTATION MATERIALS:** [www.Title24Stakeholders.com](http://www.Title24Stakeholders.com)

## Invitation to Participate

Participate in today's discussion by:

- Answering polls
- Use chat function
- Speak up and ask questions

Continue the discussion:

- Email or call CASE Authors
- Email [info@title24stakeholders.com](mailto:info@title24stakeholders.com)
- Contact California Energy Commission staff

**NOTES & PRESENTATION MATERIALS:** [www.Title24Stakeholders.com](http://www.Title24Stakeholders.com)

## Utility-Sponsored Stakeholder Meetings, March 2017

#	Date	Time	Meeting Group	Measures in Group
1	March 07, 2017	9:00 - 12:00	Laboratory Spaces	1. Induction Exhaust Fans 2. Fume Hood Sash Closures
2	March 14, 2017	9:00 - 12:00	Residential Envelope	1. Residential High Performance Walls 2. Residential High Performance Attics 3. Residential Improved Fenestration Products 4. Residential Quality Insulation Installation (QII)
3	March 15, 2017	9:00 - 12:00	Nonresidential HVAC 1	1. Proposal Based on ASHRAE 90.1-2016 a. (1 of 7) Water Side Economize 2. Cooling Tower Minimum Efficiency 3. Fault Detection Diagnostics (FDD) for Built-up Systems
4	March 16, 2017	9:00 - 12:00	<ul style="list-style-type: none"> <li>Residential HVAC</li> <li>Residential/ and Nonresidential IAQ</li> </ul>	1. Residential Quality HVAC 2. Residential Indoor Air Quality (IAQ) 3. Nonresidential Indoor Air Quality (IAQ)
5	March 21, 2017	9:00 - 12:00	Warehouses	1. Hybrid Condensers 2. Loading Dock Seals

MEETING SCHEDULE ALSO AVAILABLE AT: [www.Title24Stakeholders.com](http://www.Title24Stakeholders.com)

## Stakeholder Meetings in March 2017 (continued)

#	Date	Time	Meeting Group	Measures in Group
6	March 22, 2017	9:00 - 12:00	Nonresidential Lighting 1	<ol style="list-style-type: none"> <li>1. Nonresidential Indoor Lighting Sources</li> <li>2. Nonresidential Indoor Light Controls</li> <li>3. Nonresidential Lighting Alterations</li> </ol>
7	March 23, 2017	9:00 - 12:00	Residential Water Heating	<ol style="list-style-type: none"> <li>1. Residential Compact Hot Water Distribution Design</li> <li>2. Residential Drain Water Heat Recovery</li> </ol>
8	March 28, 2017	10:00 - 12:00	Demand Response	<ol style="list-style-type: none"> <li>1. Demand Response Clean Up</li> </ol>
9	March 29, 2017	9:00 - 12:00	Nonresidential HVAC 2	<ol style="list-style-type: none"> <li>1. Proposal Based on ASHRAE 90.1-2016               <ol style="list-style-type: none"> <li>a. (2 of 7) Fan System Power</li> <li>b. (3 of 7) Exhaust Air Energy Recovery</li> <li>c. (4 of 7) Equipment Efficiency</li> <li>d. (5 of 7) Transfer Air for Exhaust Air Makeup</li> <li>e. (6 of 7) Demand Control Ventilation for Classrooms</li> <li>f. (7 of 7) Occupant Sensor Ventilation</li> </ol> </li> </ol>
10	March 30, 2017	9:00 - 12:00	Nonresidential Lighting 2	<ol style="list-style-type: none"> <li>1. Nonresidential Outdoor Lighting Sources</li> <li>2. Nonresidential Outdoor Lighting Controls</li> <li>3. Nonresidential Advanced Daylighting Design</li> </ol>

## Tentative Schedule for 2019 Code Development Cycle

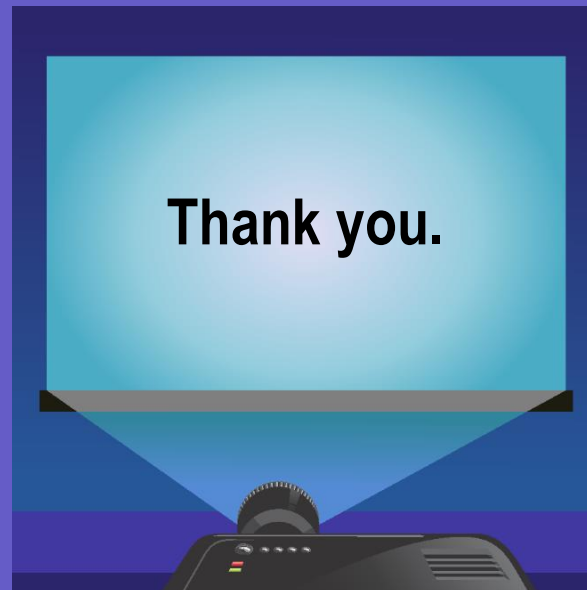
Milestone	Date(s)
Utility-Sponsored Stakeholder Meetings	March 2017
Utility Team Submits Draft CASE Reports	April 2017
CEC Pre-rulemaking Workshops	May 2017 – June 2017
Utility Team Submits Final CASE Reports	June - July 2017
CEC Rulemaking	Nov 2017 – May 2018
2019 Standards Adopted	May 2018
2019 ACM Reference Manuals and Compliance Manuals Approved	Nov 2018
2019 Standards Effective	January 1, 2020

# Are you ready to participate?



Let's move on to...

## Variable Exhaust Flow Control



- **Kelly Cunningham**  
KACV@pge.com