

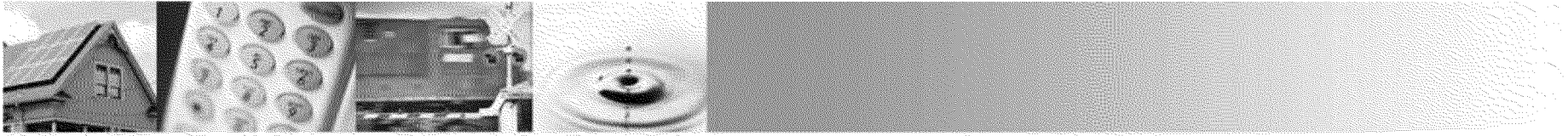
# **Operational Flexibility Modeling In the 2014 LTPP, R.13-12-010**



**Sasha Cole, Neal Reardon, &  
Patrick Young**

**Generation & Transmission Planning, Energy Division  
California Public Utilities Commission**

**April 24, 2014**



# Remote Access

## WebEx Information:

Meeting number: 741 361 305

Meeting password: ltp

<https://van.webex.com/van/j.php?MTID=m485f170d519eea203079d79986ac386d>

**Call in #:**

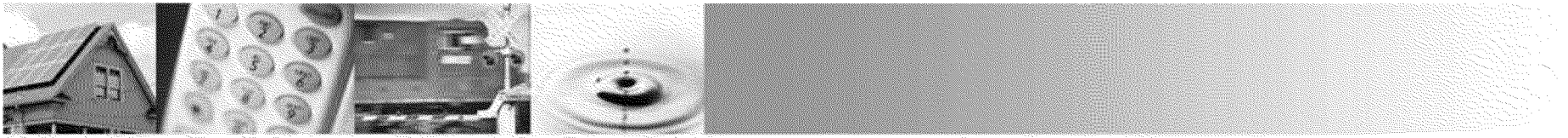
866-687-1443

*Note: \*6 to mute/unmute*

**Passcode:**

1049466

*Upon entry to the call, please place yourself on mute. We will invite callers to ask questions during the course of the workshop. During those times, please remain on mute unless you are asking a question. For technical difficulties during the workshop, contact Neal Reardon at [neal.reardon@cpuc.ca.gov](mailto:neal.reardon@cpuc.ca.gov)*

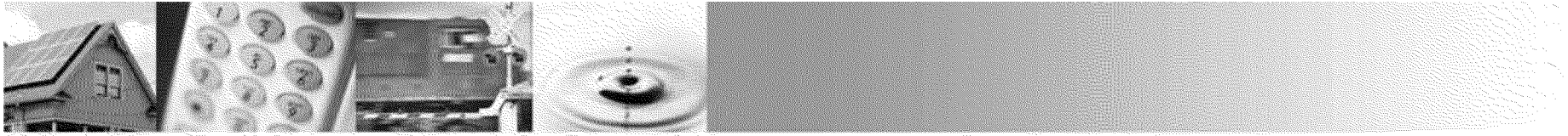


# Restrooms & Evacuation Procedure

**Restrooms are out the Auditorium doors and down the far end of the hallway.**

**In the event of an emergency evacuation, please cross McAllister Street, and gather in the Opera House courtyard down Van Ness, across from City Hall.**

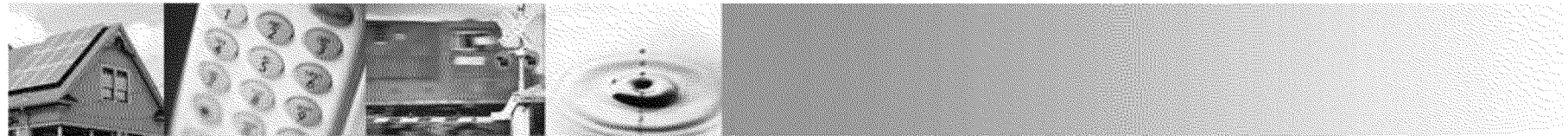




# Workshop Purpose

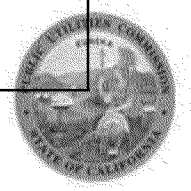
- Introduce operational flexibility modeling to parties in the 2014 Long-Term Procurement Plan (LTPP) Proceeding (R.13-12-010)
- Develop consensus on a framework to compare different models and their results to inform flexibility need determination
  - Best portfolio of resources to fill any need will be addressed in 2015 (Phase 1b)
- Workshop goals:
  - agreeing on a common set of questions each model should answer
  - agreeing on output reporting requirements and definitions

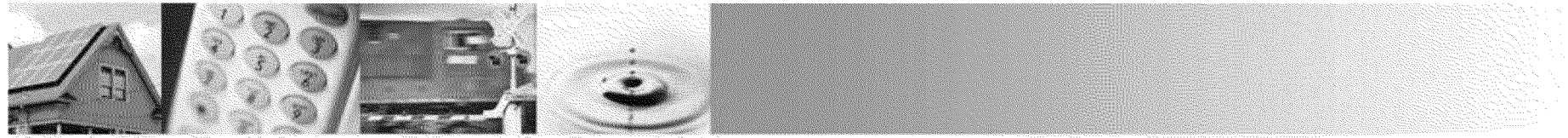




# Agenda

An overview of operational flexibility models for the 2014 LTPP		
10:00 – 10:10	10	<b>Introduction / Schedule</b>
10:10 – 10:50	40	<b>PG&amp;E (Antonio Alvarez)</b> Discuss the primary questions planning models should answer, the complexities of such modeling, and the methods for comparing different models and their results.
10:50 – 11:20	30	<b>CAISO (Shucheng Liu)</b> Discuss the key differences between deterministic modeling and stochastic modeling and the pros and cons of each method.
11:20- 11:50	30	<b>Energy Division (Donald Brooks)</b> Discuss the use of stochastic modeling for studying grid reliability, and how the SERVM model being used in the Resource Adequacy Proceeding can inform the flexibility question.
11:50 – 12:50	60	<b>Lunch Break</b>

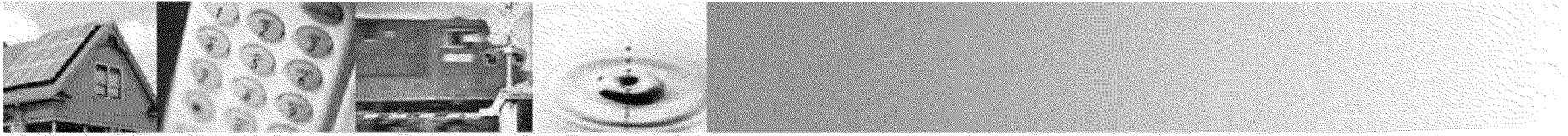




# Agenda

<b>Outputs and Metrics of Operational Flexibility Modeling to Inform Policy</b>		
12:50 – 1:20	30	<b>CAISO (Shucheng Liu)</b> Discuss a proposal for Reporting Requirement metrics for each model type and standardization of outputs and definitions.
1:20 – 2:20	60	<b>Panel (PG&amp;E, SCE, CAISO, TURN, Energy Division) / Audience Discussion</b> Respond to the proposal for Reporting Requirement metrics and discuss what is necessary to compare and interpret different models and their results in order to best quantify and characterize flexibility need.
2:20 – 2:30	10	<b>Break</b>
2:30 – 3:30	60	<b>Panel / Audience Discussion - continued</b>
3:30 – 4:00	30	<b>Wrap up / Next Steps</b>





**Thank you!**  
**For Additional Information:**  
**[www.cpuc.ca.gov](http://www.cpuc.ca.gov)**

