

# California Compliance Software Symposium 2

## Industry Perspectives: Cal TF, Modeling Tool Perspective

Thursday, July 12, 018

Ayad Al-Shaikh  
California Technical Forum, Principal Engineer



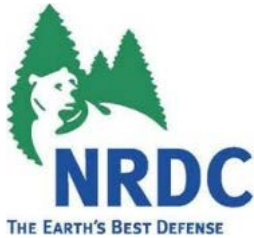
# The California Technical Forum (Cal TF)



## What is the Technical Forum?

A group of in-state and out-of-state technical experts that work in a collaborative and transparent way to review new and updated energy efficiency measures and other technical information related to California's integrated demand-side management portfolio.

## A Broad Collaborative



CPUC Office of Ratepayer Advocates

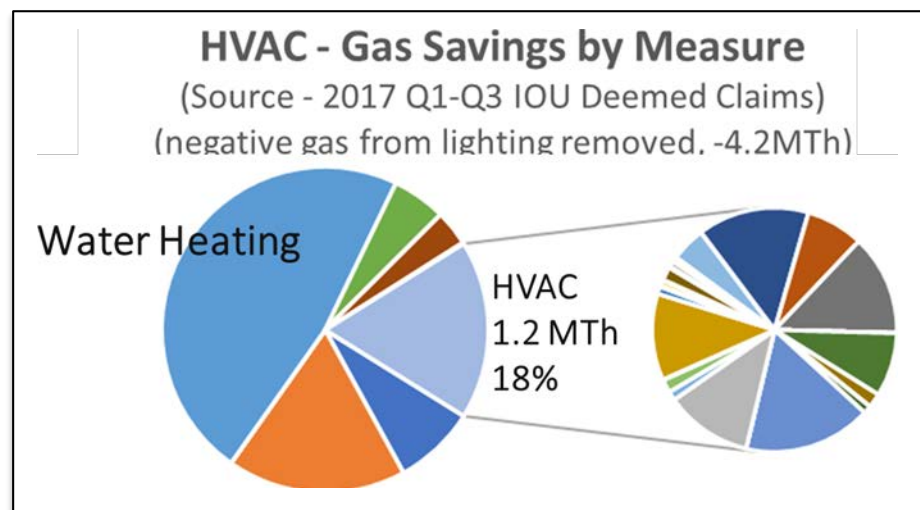
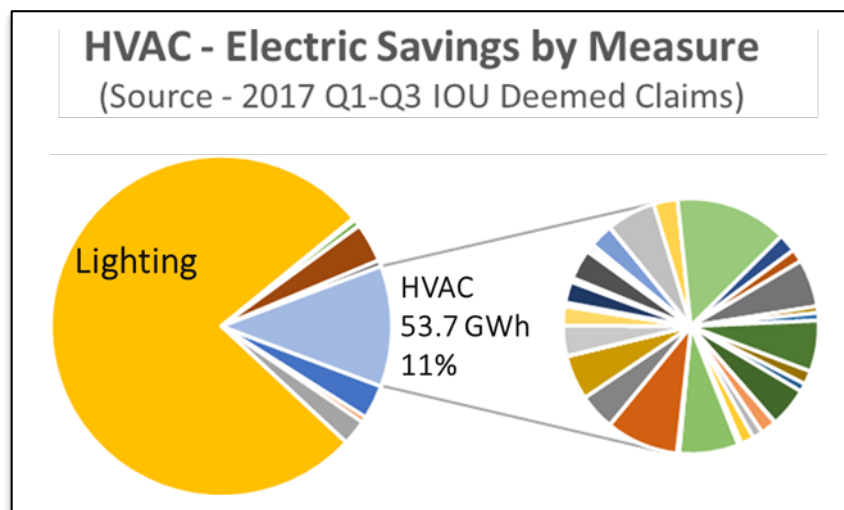


# Cal TF Modeling Software Uses

## Modeling deemed measures

Applicable to California

- 54 HVAC Measures (>75% modeled results)
  - 2017 *Deemed* Contribution: 11% of electric; 18% of gas
  - Contribution will increase substantially as Lighting decreases)



- 22 Commercial Refrigeration Measures (~75% modeled results)

# Cal TF Modeling Software Uses



- Modeling deemed measures
  - Applicable to California (50+ modeled measures)
  - Flexibility / consistency across
    - Utility, climate zone, or statewide applicability
    - Building type vintages
    - Measure permutations
    - Multiple delivery channels:
      - Up-stream, mid-stream, and downstream
      - Utility (IOU/POU), third-party, local government, etc.
  
- User-generated modification of measures (*future*)
  - Semi-deemed
  - Modifications to building prototype

# Cal TF Key Challenges



- Transparency for:
  - Regulatory oversight
  - Savings accuracy
  - Users want to understand whether the measure applies to their customers
  - Users who want to create their own measures need to understand what comprises a measure
- Usability
  - Ease of accessing, using, modifying and extending modeling tools
  - Statewide consistency
- Open Source
- Publicly Funded

## Cal TF Wish List



- Transparent & well-documented
- Technical tools to extend uses in California
- Agreed upon & used by agencies across California & beyond
  - CPUC, CEC, DOE, etc.
- Developed with public funds
  - No licensing fees

# What do you think?



- Any questions?
- Comments?



Let's move on to a discussion of...

# Industry Perspectives: DOE/Labs, Coordination with Federal Efforts

Amir Roth

**Thank you.**

- **Ayad Al-Shaikh**  
Ayad.AlShaikh@futee.biz