

## SESSION 1D

### LIGHTS, METERS, ACTION !

*Moderator: Shahana Samiullah, Southern California Edison*

#### PAPERS:

##### **Residential Lighting Metering Study: Detailed Methods and Preliminary Lighting Inventory Results**

Alissa K. Johnson *KEMA Inc., Oakland, CA*  
Kathleen Gaffney, *KEMA Inc., Oakland, CA*

##### **What Type of CFL User Are You?**

Kathleen Gaffney, *KEMA, Inc., Oakland, CA*  
Miriam Goldberg, *KEMA, Inc., Wisconsin, CA*  
Kevin Price, *KEMA, Inc., Oakland, CA*

##### **They're Out There – Somewhere: Locating and Evaluating CFLs Distributed through Markdown and Buydown Programs**

Lisa Wilson-Wright, *Nexus Market Research, Melrose, MA*  
Jeff Zynda, *KEMA, Middletown, CT*  
Ralph Prah, *Prah and Associates, Madison, WI*  
Kim Oswald, *Viridian, Austin, TX*  
Angela Li, *National Grid, Waltham, MA*

##### **Light and Heat: An Exterior Lighting Metering Study Using Both Light and Temperature Loggers**

Brett T. Close, *Southern California Edison, Irwindale, CA*  
Carrie Weber, *KEMA, Oakland, CA*

#### SESSION SUMMARY:

This session spot lights the key measurement issues in evaluating the effectiveness of upstream CFL programs. The session will provide a set of evaluation approaches that attempt to address some of the most critical savings estimation issues that are indigenous to the nature of such program approaches. The purpose of this session is to stimulate a conversation around issues related to hours of operation metering, program participant purchases and installation verification issues that are of interest to evaluators, regulators, planners, and implementers of upstream CFL programs.

Three of the papers are based on research conducted as part of a large-scale evaluation in California, which has led the nation in increasing CFL market share over the past years. The first paper, “Residential Lighting Metering Study: Detailed Methods and Preliminary Lighting Inventory Results” presents detailed protocols for metering data collection and the unique challenges to estimating hours of use for estimating the energy savings from utility-rebated CFLs. The paper highlights the importance of addressing the variation in CFL hours of operation by the level of CFL saturation in homes. This is a critical measurement consideration that can then inform future program potential.

The second paper, “What Type of CFL User Are You?” provides one approach to modeling the time-to-installation for a purchased CFL in homes that is critical for California energy efficiency program requirements for claiming savings within an approved program cycle. The sooner an action is taken by a customer to install the purchased CFL, the quicker the savings from CFL start to realize. The

paper points to the important variables that can impact time-to-installation of purchased bulbs with the idea that this will help the policy makers and program planners make effective future program efforts.

The third paper, “They’re Out There – Somewhere: Locating and Evaluating CFLs Distributed through Markdown and Buydown Programs” lays out an important first step in evaluating the upstream programs when no purchaser customer information is available. Identifying the right purchaser for the right program year becomes the most critical step in evaluating such mark-down, upstream programs. This paper provides a practical strategy to identify the mark down CFLs when certain conditions are met to implement such a strategy. The paper provides the details of its sample design and summary results, which it also compares with other similar studies.

The final paper in this session, “Light and Heat: An Exterior Lighting Metering Study Using Both Light and Temperature Loggers” focuses on hours of operation of CFLs in exterior applications. Metering lights in exterior application faces its own unique challenges, including spurious readings due to daylight exposure and difficulty in accessing the light that is expected to be metered. This paper provides one approach to address such field implementation challenges that other exterior metering studies can adopt to further understand exterior lighting usage.