

U.S. DEPARTMENT OF ENERGY

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November Workshop Delivers Diverse Perspectives on Today's Toughest Lighting Issues

SSL is revolutionizing the world of lighting—not only the products, but the practices as well. However, many of the very characteristics of SSL that are enabling this transformation also present a host of new challenges. Those challenges will be explored in depth at DOE's ninth annual <u>SSL Market</u> <u>Development Workshop</u>, to be held in Detroit November 12–13.

The workshop will feature two jam-packed days of expert speakers, in-depth discussions, and nonstop networking with representatives from utilities, energy-efficiency organizations, municipalities, state and regional governments, facilities managers, specifiers, retailers, distributors, lighting designers, product development managers, and others. Speakers will examine trends and issues related to specifying today's lighting products and managing and participating in today's utility programs, and will also look ahead to what's next for SSL.

A growing number of lighting manufacturers are offering color-changing LED products with the promise of health and behavioral benefits. A workshop panel featuring John Hwang of lighting manufacturer PlanLED, researcher Steven Lockley of Harvard University, and specifier Leslie North of Aurora Lighting Design will offer insights on potential value-added benefits, what research is still needed to validate them, and the process and challenges for specifying lighting systems intended to improve health and productivity.

Another panel—this one featuring Lori Brock of OSRAM Sylvania, Rodrigo Manriquez of architectural design firm SmithGroupJJR, and Robert Davis of Pacific Northwest National Laboratory (PNNL)—will discuss the benefits of thinking in terms of an overall lighting system rather than a collection of individual components. At the hardware level, lighting as a system means closely integrating the luminaires, controls, and user interface to optimize the overall system performance and operation. But at the design level, it refers to creating a visual environment that fully supports the user experience, in terms of the desired activities, behaviors, and impressions. Using examples from their own projects, the panelists will examine how SSL technology enables or possibly inhibits these system-based approaches, and whether further integration of hardware can enable deeper energy savings while improving the user experience.

The rapid pace of LED change, combined with long lead times for new construction and major renovation, can cause significant challenges for specifiers and their clients. Between product specification and actual procurement, a year or more may have elapsed, which means that the specified LED products almost certainly will have changed. This puts the designer in the tough position of having to recheck and revise the design, or risk problems due to incompatibility of the new products with the controls system and other components. A workshop panel featuring Scott Hershman of LF Illumination, Brienne Willcock of Illuminart, and Jim Yorgey of Lutron will explore what can be done to improve this situation, and how manufacturers can ensure that upgraded products will still work as planned.

A similar panel featuring representatives from DTE Energy, Xcel Energy, and Duke Energy will discuss how utility program implementers are keeping pace with rapid SSL product changes, what the major challenges are, what costs are incurred, and what energy-saving opportunities are lost without frequent changes to program rules. On the flip side, a panel of representatives from Hubbell Lighting & Controls, Eaton Cooper Lighting, and Cree will look at that same issue from the manufacturer's perspective, focusing on what changes would make utility programs less expensive, more effective, and easier for manufacturers to work with.

Another workshop panel will consider what utility lighting programs of the future might look like, as LED lighting migrates from lamps and luminaires to lighting systems. Will future programs abandon the one-for-one replacement emphasis of most current programs, in favor of custom incentives? Will they use qualified product lists, or require the extent of testing that's currently required? Independent consultant Chris Corcoran, Kenn Latal of ICF International, and Kelly Sanders of Northwest Energy Efficiency Alliance will explore these questions and more, building on the prior panel discussions.

Dan Chwastyk of Navigant Consulting, Dan Mellinger of Efficiency Vermont, and Maury Wright of *LEDs Magazine* will offer varied perspectives on major trends and changes we're seeing now with SSL technology, and what's on the horizon. One of the biggest trends today is the use of LED lighting products with controls, a topic addressed in a workshop panel featuring Michael Poplawski of PNNL, Paul Dunn of Telensa/TALQ Consortium, and Pekka Hakkarainen of Lutron and the Connected Lighting Alliance. They'll discuss the issues hampering control system interoperability, provide updates on collaborative efforts to address these issues, and review what buyers and specifiers need to know about this important topic.

Partha Dutta of Rensselaer Polytechnic Institute and Susanne Seitinger of Philips Color Kinetics will examine another emerging trend—smart lighting. They'll provide a fascinating glimpse into the future of smart lighting, answering such questions as whether it will help us save lighting energy and improve lighting quality. On the evening of November 11, the night before the workshop officially begins, there will be an optional guided bus tour of local LED installations—including Chrysler House, an office space that serves as an LED and energy-efficiency experiment; and the NextEnergy Center, an energy-efficiency and LED demonstration site. Space is limited, and registration is required.

The Detroit workshop is a unique opportunity to get multiple perspectives on today's toughest lighting issues, as well as the latest updates on a market in motion. To register, or for more information about the workshop and bus tour, please visit the <u>DOE website</u>.

As always, if you have questions or comments, you can reach us at <u>postings@akoyaonline.com</u>.