

# 2015 U.S. DEPARTMENT OF ENERGY CONNECTED LIGHTING SYSTEMS MEETING AGENDA

November 16, 2015 • Portland Marriott Downtown Waterfront • Portland, OR

7:00 a.m. *Registration Opens and Continental Breakfast*

## MORNING SESSION

8:00 a.m. **Welcome and Introduction**

There is a lot of buzz today about the Internet of Things and the convergence of intelligent controllable light sources, communication networks, sensors, and data exchange in future lighting systems. There is less talk, however, about how exactly we get from *here* to *there*. At this inaugural Connected Lighting Systems Meeting, top experts from the lighting, semiconductor, and IT industries will share perspectives and forge a path forward toward a new lighting paradigm, and deeper energy savings.

JAMES BRODRICK, U.S. DEPARTMENT OF ENERGY

8:15 a.m. **Keynote: Why Lighting Systems Will Become More Connected**

Everybody is talking about how IoT will change the world, but there is currently no blueprint for creating it. In this keynote address, the CTO of IoT Solutions at Cisco will lean on 28 years of networked systems experience to offer perspective on what it means to be an IoT device, and what is needed to more broadly enable the IoT. Why will (or must) lighting systems become more connected? What technologies must be developed and/or integrated into lighting devices to enable them to maximize their IoT potential? How can the lighting industry develop and deploy connected lighting devices and systems faster and more efficiently?

TOM HERBST, CISCO SYSTEMS

9:15 a.m. **Why Lighting Systems Need to Evolve**

Technology for lighting control has long been available in the market, but it has seen limited deployment to date and has not always met energy-saving expectations. This session will offer perspective on why yesterday's technology has met with limited success, and lay the groundwork for the ensuing meeting discussions on how tomorrow's connected lighting systems might overcome these issues.

GABE ARNOLD, DESIGNLIGHTS CONSORTIUM

9:45 a.m. *Break*

10:15 a.m. **DOE Focus Areas and Panel Introduction**

MICHAEL POPLAWSKI, PACIFIC NORTHWEST NATIONAL LABORATORY

10:30 a.m. **Why Should We (and How Can We) Enable Lighting Systems to Report Their Own Energy Consumption?**

You can't (effectively) manage what you can't measure. Connected lighting systems that can report their own energy consumption could usher in a new era for lighting energy management. How accurate does the reporting need to be? What examples of this capability are already commercially deployed? What is needed to enable this capability more broadly?

MODERATOR: KELLY SANDERS, NORTHWEST ENERGY EFFICIENCY ALLIANCE  
 MICHAEL POPLAWSKI, PACIFIC NORTHWEST NATIONAL LABORATORY  
 BRENT PROTZMAN, LUTRON  
 JEFFERAY LAWTON, MICROCHIP

Noon

Lunch

## AFTERNOON SESSION

1:00 p.m. **Where and When Do We Need Interoperability?**

System performance is dependent not just on constituent device capabilities, but also on the ability of those devices to work together. Computing, IT, and mobile device platforms that have driven lifestyle changes, technology development, and much of the economy over the past few decades were enabled by interoperability specifications and standards that describe how devices should work together. What is required to unlock the potential of connected lighting systems? Where do we need interoperability today, and in the future?

MODERATOR: MICHAEL POPLAWSKI, PACIFIC NORTHWEST NATIONAL LABORATORY  
 ROY HARVEY, OSRAM SYLVANIA, REPRESENTING THE ZIGBEE ALLIANCE  
 IVAN JUDSON, MICROSOFT, REPRESENTING THE ALLSEEN ALLIANCE  
 REMY MARCOTORCHINO, SIERRA WIRELESS, REPRESENTING ONEM2M  
 DAVID MCCALL, INTEL, REPRESENTING THE OPEN INTERCONNECT CONSORTIUM

2:30 p.m.

*Refreshment Break*

3:00 p.m. **How Can Lighting System Configuration Complexity Be Effectively Reduced?**

Systems that are overly complicated and time-consuming to configure have historically delivered less than ideal performance. Broad deployment of connected lighting systems will require system configuration complexity to be well-matched to user capabilities and maturity, or greatly simplified, or effectively removed from the user. Various approaches to tackling this challenge are starting to emerge—from self-configuring solutions and platforms to service-based business models. What can these approaches achieve today, and what is their long-term potential and place in the market?

MODERATOR: CHRISTINE WU, U.S. GENERAL SERVICES ADMINISTRATION  
 DAGNACHEW BIRRU, PHILIPS LIGHTING  
 TOM GRIFFITHS, AMS-TAOS  
 KISHORE MANGHNANI, ORAMA

- 4:30 p.m.      **Making It Happen: Connected Lighting Systems That Are Changing the Game**  
Connected lighting systems hold the potential to deliver not only improved energy performance and lighting quality, but also a growing list of other benefits that might result in the creation of new business models and revenue streams. This session will look at a few recent examples of installed systems that are demonstrating improved lighting energy performance and/or other benefits that significantly impact the business case. What can these examples tell us about how to further unlock this potential in the real world?
- MODERATOR: MARC LEDBETTER, PACIFIC NORTHWEST NATIONAL LABORATORY  
KAYNAM HEDAYAT, DIGITAL LUMENS  
DAN COCOSA, GOOGLE

5:30–7:00  
p.m.      *Networking Reception, sponsored by Northwest Energy Efficiency Alliance (NEEA)*