



# Establishing lighting best practices and educational programs in support of zero net energy policy

An APEC regional collaboration with university lighting centers  
and research institutions

2-3 June 2016  
Chatrium Hotel Riverside  
Bangkok, Thailand

Agenda (draft)

# Meeting of Minds 2.1

## Lighting best practices workshops for zero net energy policy

**A roundtable conference hosted by King Mongkut's University of Technology Thonburi (KMUTT), Tongji University and University of California at Davis**

### **Purpose of the meeting:**

This is the first of two workshops that will bring together key thought leaders within the lighting efficiency arena with the objective of identifying strategies and best practices in support of zero net energy policy.

### **Specific agenda items:**

1. Identify key best practices involving policies and opportunities technologies or design approaches that can achieve deep energy saving in the lighting of buildings
2. Learn from effective collaboration models among stakeholders and strategies of the successful implementation of policies and projects
3. Make recommendations on unified lighting best practices that can be applied to the design and retrofitting of buildings in the APEC region

## Driving Forces:

Lighting consumes about 25% of world energy use, but can consume up to 33% of the energy used in developing economies. Due to pressing climate goals, many APEC economies are currently struggling to develop zero net energy (ZNE) roadmaps that rely heavily on achieving deep energy saving in an aging building stock. Retrofitting the existing building stock with highly efficient lighting is one of the most effective ways to achieve deep energy savings and rapidly reduce our dependence on fossil fuels.

Buildings' energy consumption constitutes one of the largest contributions to greenhouse gas emissions and has been targeted by many APEC economies as a priority opportunity, but there exists a considerable lack of knowledge on how to best achieve these “deep” energy saving and which strategies and practices should be employed with finite public investment. Unifying lighting best practices, and supporting educational curriculum has the potential to significantly increase the rate at which advanced lighting solutions are adopted across in developing member economies, decreasing the overall energy use.

Two sequential workshops are proposed to produce first a compilation of best practices for achieving deep lighting energy savings for both retrofit and new design of buildings. The second of the sequential workshops will result in an educational program and supporting curriculum that will be linked with the collaborating universities and lighting centers for the promulgation of the best practices.

The capacity building that will result from these two sequential workshops will enable developing APEC member economies to take full advantage of evolving best practices for effective lighting that will then be promulgated through an integrated educational infrastructure within the aligned economies. This synergistic activity of linking both the knowledge base and the educational infrastructure is a significant addition to capacity building within the APEC member economies.

### **Format and organization:**

The roundtable meeting of experts will focus on the two specific components of the two-day program:

- 1) Lighting best practices implemented successfully and resulted in deep energy savings
- 2) Discussions and recommendations on unified best practices for buildings in the region

The 'Meeting of Minds 2.1' roundtable will be organized around a series of presentations from each invited expert, addressing these two components. We are asking that the invited experts talk about their specific experience in energy-efficient lighting policies, advanced research and design strategies in real projects.

In addition to presentations by the experts, we will present initial results from pre-workshop surveys on current best practices and some educational programs in the region. This is to provide a background information for our discussions which will take place on the second day of the workshop. The concept is to share experiences and opportunities to achieve sustainable lighting design. Specific focus will be placed on identifying lighting best practices and effective strategies to transfer the knowledge through educational programs for building professionals.

### **Key questions relative to establishing unified lighting best practices:**

- What are the lighting design strategies that can lead to deep energy savings?
- What are energy-efficient lighting policies that are effective?
- What major activities required to implement these policies?
- What models of collaborations among stakeholders are effective?
- How lighting and building professionals can contribute to these processes?
- How lighting industry can engage in promoting these best practices?
- What are opportunities for developing educational programs on energy-efficient lighting for building professionals?



# Meeting Agenda

## Workshop to Establishing Lighting Best Practices Educational Programs to Achieve Deep Energy Saving

**Date :** Wednesday, 1 June 2016  
**Venue:** Chatrium Hotel Riverside (Terrace Dining)  
**Time:** 6:00 PM - 8:30 PM  
**Event:** Welcome dinner

Time	Event
6:00 PM	Registration and welcome drink
6:30 PM	Thai set dinner
20:30 PM	Closing



# Meeting Agenda

## Workshop to Establishing Lighting Best Practices Educational Programs to Achieve Deep Energy Saving

**Date :** Thursday, 2 June 2016  
**Venue:** Chatrium Hotel Riverside, Bangkok, Thailand  
**Time:** 8:30 AM - 16:30 PM  
**Event:** Meeting Day 1

Time	Event	Presenter
8:30 AM	Registration	
9:00 AM	Welcome speech by Assoc. Prof. Sakarindr Bhumiratana	KMUTT President (TBC)
9:10 AM	Keynote speaker: Energy-efficiency policies and strategies in Thailand	Dr. Twarath Sutabutr (TBC)
9:30 AM	Introduction and overview of the workshops and presentations	Asst. Prof. C. Chuntamara
9:40 AM	From lighting design research to best practices in California by CLTC	Prof. Michael Siminovitch
10::20 AM	Coffee break	
<b>Presentations (lighting best practices)</b>		
10:40 AM	Effective lighting innovation demonstrations and outreach programs by SMUD	Mr. Alan Suleiman
11:00 AM	Roles of lighting design guidelines and education programs in Australia	Prof. Warren Julian
11:20 AM	Energy-efficient lighting policies and best practices in Hong Kong	Prof. Steve Wong
11:40 AM	Energy-efficient lighting policies and strategies in Singapore	Assoc. Prof. K. Baskaran
12:00 AM	Lunch break	
<b>Presentations (lighting best practices)</b>		
13:30 PM	Advanced LED technologies and lighting best practices in Japan	Mr. Satoshi Uchihara
13:45 PM	Lighting best practices and demonstration facilities in Beijing, China	Dr. Rong Haolei
14: 00PM	Lighting innovation and applications of LED in China, Japan and Korea	Prof. Nianyu Zou
14:20 PM	Advanced LED technologies and best practices for office buildings - Australia	Ms. Ying Ching Hui
14:40 PM	Coffee break	
<b>Presentations (lighting best practices)</b>		
15:00 PM	Application of innovative daylighting in high-rise buildings - Malaysia	Mr. Gregers Reimann
15:15 PM	A novel glare assessment tool for daylighting in the tropics - Malaysia	Dr. Michael Hirning
15:30 PM	Energy-efficient lighting policies and strategies in Indonesia	Mr. Herman Endro
15:50 PM	Implementations of lighting best practices in Indonesia	Mr. Totok Sulistiyanto
16:10 PM	Discussions and summary of the presentations	Prof. Michael Siminovitch



# Meeting Agenda

## Workshop to Establishing Lighting Best Practices Educational Programs to Achieve Deep Energy Saving

**Date :** Friday, 3 June 2016  
**Venue:** Chatrium Hotel Riverside, Bangkok, Thailand  
**Time:** 8:30 AM - 16:30 PM  
**Event:** Meeting Day 2 and Thank you dinner

Time	Event	Presenter
8:30 AM	Registration	All
9:00 AM	Keynote Speaker: Strategies to promote energy-efficient lighting by EGAT	Director of DSM, EGAT
9:20 AM	Energy-efficient lighting policies and strategies by DOE - The Philippines	Mr. Art Habitan* (TBC)
9:40 AM	Lighting design research and opportunities for ZNE in Thailand	Asst. Prof. C. Chuntamara
10:00 AM	Coffee break	
<b>Input from stakeholders</b>		
10:20 AM	Capacity building for lighting industry and building professionals (by TIEA)	Mr. Uthit Chanchenchop
10:35 AM	Roles of building professional organisations on energy-efficient lighting	Mr. Kasem Nincharoen
10:50 AM	Advanced lighting technologies and opportunities for ZNE in the region	(by Lighting industry)
11:30 AM	Panel discussions on collaboration models among stakeholders	Dr. Acharawan Chutarat
12:00 AM	Lunch break	
<b>Recommendations on policies: Roundtable discussions</b>		
13:30 PM	Review of lighting best practices on effective policies and lighting strategies	Prof. Luoxi Hao
13:50 PM	Roundtable discussions: policies, strategies, activities, and partners	All
14:40 PM	Coffee break	
<b>Recommendations on lighting best practices: Roundtable discussions</b>		
15:00 PM	Roundtable discussions: lighting strategies, implementations and education	All
15:50 PM	Make recommendations on unified lighting best practices	Moderator/Group leaders
16:15 PM	Workshop summary by Dr. Chuntamara and closing remarks by Prof. Luoxi Hao	
<b>Thank you dinner</b>		
18:00 PM	Meeting at Chatrium Pier and depart for the restaurant (venue to be confirmed)	All
21:00 PM	Depart from the restaurant back to Chatrium	All





**Meeting venue:**

**Chatrium Hotel Riverside**

Charoen-krung Road, Bangkok

