Commercial and Residential Lighting Breakout Session

Transitioning to Comprehensive Lighting Approaches Part 1 – How Far Have We Come?

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Chicago, IL

Who's Attending this Session?

- Energy Efficiency Programs
  - Avista Utilities
  - BC Hydro
  - ComEd
  - Detriot Edison
  - Energy Trust of Oregon
  - Hawaii Energy Efficiency Program
  - Idaho Power
  - Long Island Power Authority
  - MidAmerican Energy
  - Midwest Energy Efficiency Alliance
  - New Brunswick Power
  - New York State Energy Research and Development Authority
  - Northern Indiana Public Service Company
  - NV Energy
  - Ontario Power Authority
  - Pacific Gas & Electric
  - PNM Albuquerque
  - PPL Electric Utilities
  - Sacramento Municipal Utility District
  - San Diego Gas & Electric
  - Southern California Edison
  - Tennessee Valley Authority
  - United Illuminating
  - We Energies
  - Wisconsin Focus on Energy
  - Xcel Energy

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Who's Attending this Session?

- Manufacturers
  - 3M
  - EarthTronics
  - Gaylord Industries
  - GE Lighting
  - Globe Electric
  - Halco Lighting Technologies
  - Kichler Lighting
  - Leviton
  - Lutron
  - MaxLite
  - Philips Lighting
  - Pure Lighting
  - Satco Products, Inc / Nuvo Lighting
  - TrickleStar

Who's Attending this Session?

- Retailers
  - Best Buy
  - Crest Lighting / Evergreen Oak Electric
  - Lightology
  - Sear's
  - Walmart
- Technical Experts
  - EPRI
  - Lawrence Berkeley National Lab

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Today's Overall Agenda

- Session 1
  - Background on Comprehensive Lighting Work
  - Pilot Programs Insights: Presentation from Wisconsin Focus on Energy
  - Discussion on Core Program Elements
- Session 2
  - Overview of Subgroup Assignments
  - Subgroup Work
  - Report Back to the Group

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Background

- Why are we looking at comprehensive lighting programs?
- What is a comprehensive lighting program?
- How do programs transition to a comprehensive lighting approach?
- How can we support this transition?
- What has been accomplished to date?

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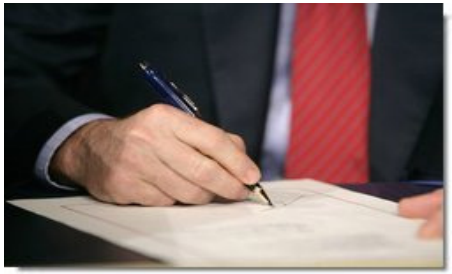
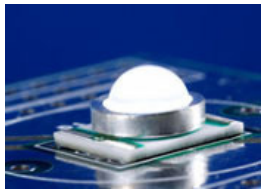
Why are We Looking at Comprehensive Lighting Programs?

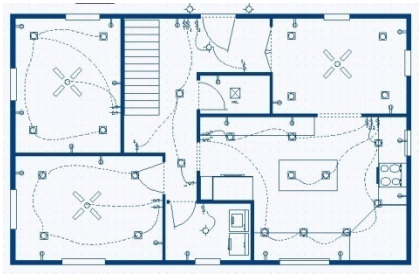
- Claiming energy savings from lighting programs is becoming more challenging
  - New minimum efficiency standards will change the baseline
  - Increased energy efficiency savings targets
  - Talk of market transformation
- Some programs are beginning to experience this now, many more will in the future



What is a Comprehensive Lighting Program?

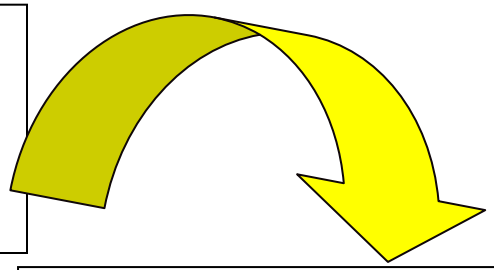
- A comprehensive lighting program is a program that includes more than one-for-one product replacement
- It can include any or all of the following components:
  - Traditional technologies
  - Emerging technologies
  - Lighting controls
  - Daylighting
  - Design



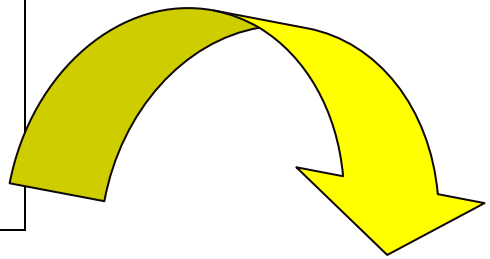


How Do Programs Transition to a Comprehensive Lighting Approach?

New Programs
- One for one product replacements



Mature Programs
- Continuing with one for one product replacements
- Researching emerging technologies and advanced lighting controls



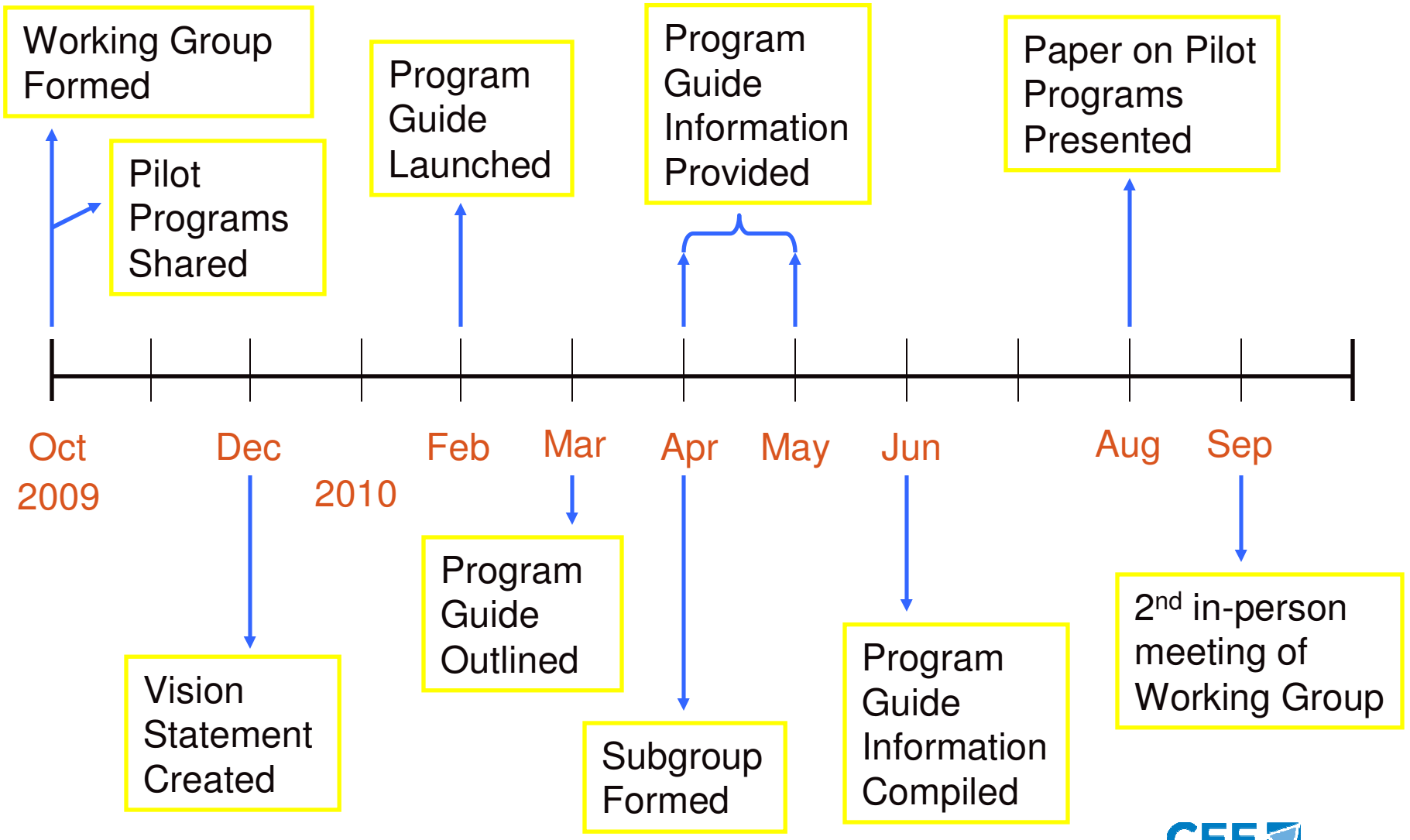
Advanced Programs
- Running emerging technology programs (SSL, daylighting, controls)
- Comprehensive programs (with design strategies)

How Can We Support this Transition?

- A Comprehensive Lighting Working Group was formed at CEE's 2009 Industry Partner Meeting
- Participants include:
  - CEE members
  - Government representatives
  - Manufacturers
  - Trade associations

- The group has met five times since December

What Has Been Accomplished to Date?



What Has Been Accomplished to Date?

- Vision statement

  “The working group strives to meet occupant's lighting needs and deliver aggressive lighting energy savings in the U.S. and Canada by supporting comprehensive program approaches that use a combination of traditional technologies, emerging technologies, controls, daylighting and design.”

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What Has Been Accomplished to Date?

- Draft Program Guide
  - A resource to support programs administrators when designing comprehensive lighting programs
  - It provides necessary background information about the technology and market as well as commonly agreed upon program approaches
  - The current outline for each technology includes:
    - Savings Potential
    - Relevant Market Segments
    - Market Barriers
    - Market Players
    - Program Barriers
    - Program Approaches
    - Applicable Target Audiences

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What Has Been Accomplished to Date?

- Subgroup
  - Created to supplement the work on the Program Guide
  - Focused on a specific market intervention opportunity
    - Looked at large commercial office spaces
    - Examined the potential opportunity with low ambient/task lighting

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What Has Been Accomplished to Date?

- Pilot Programs
  - Three CEE members have been running comprehensive lighting programs
    - Efficiency Vermont
    - Massachusetts EEPs
    - Wisconsin Focus on Energy
  - Pilot Program Paper details the program design, early successes, and lessons learned
  - Pilot Program Paper identifies core program elements

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Today's Focus

- Shift our Program Guide focus from background technology and market information to program approaches
- Consider adding in new pieces of information learned from Pilot Programs
- We are going to hear from one pilot: Wisconsin Focus on Energy
- Liesel will not only talk about her program but discuss the core program elements that are shared by all three pilots in the paper

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Today's Focus

- Session 1:
  - Vet the core program elements in the Paper on Pilot Programs
- Session 2:
  - Develop three of the core program elements further to see how they could potentially be incorporated into the Program Guide
  - Provide an opportunity to influence the Program Guide

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Discussion Questions

- What program elements could be used in a comprehensive lighting program?
- How do these program elements match to the core program elements identified by the pilot programs?
- Should all these core program elements be incorporated into the Program Guide? If so, how?
- Are there any other key pieces of information are missing from the draft Program Guide?

Core Program Elements

	MA	VT	WI
1. Incorporate existing technologies, emerging technologies, controls and/or daylighting	x	x	x
2. Involve lighting designers in each project	x	x	x
3. Promote whole house/building upgrades (70% of qualified floor area)	x		x
4. Promote to lighting providers and end users	x	x	x
5. Use non-linear incentive approach		x	x
6. Require baseline assessment of spaces	x	x	x
7. Set incentives based on performance compared to code			x

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Draft Program Guide

- It is designed to include the following information for each technology:
  - Savings Potential
    - Documented Savings
    - Potential Future Savings
    - Incremental Measure Costs
  - Relevant Market Segments
  - Market Barriers
    - Technical
    - Other
  - Market Players
  - Program Barriers
  - Program Approaches and Evaluation
    - Upstream
    - Mid-stream
    - Downstream
  - Applicable Target Audiences

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