



Residential Lighting Breakout Session

Strategic Lighting Program Approaches for
2010 and Beyond

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Today's Agenda

- ▶ Group Exercise
 - Snapshot of 2010 lighting activities
- ▶ Review current efforts
 - CEE Committee Work
 - California Super Lamp Specification
 - Others
- ▶ Discuss other ways to deliver energy savings in the future

Group Exercise

▶ Technology Focus

- Standard CFLs
- Specialty CFLs
- Fluorescent fixtures
- LED fixtures
- LED lamps
- Other (Halogen, Cold Cathode, Sulfur Plasma)

▶ Program Approaches

- Upstream
- Midstream
- Downstream
 - Give-aways
 - Rebates
 - Consumer education
- Research
 - Comprehensive Pilots
- Other

CEE Committee Work

▶ Market Focused

1. Commenting on FTC Lamp Labeling
2. Supporting ENERGY STAR lighting transition and specification development

▶ Program Focused

1. Improving ENERGY STAR specification for CFLs
2. Increasing quality SSL products and lighting controls that can be included in programs
3. Developing tools to support comprehensive program approaches

1. Improving Quality of ENERGY STAR CFLs

Process	Status
Develop a goal	Complete
Prioritize program needs	Complete
Develop recommendations	In progress
Prioritize recommendations	To be completed
Submit to ENERGY STAR	To be completed
Based on ENERGY STAR response, determine how to move forward	To be completed

1. Developing Recommendations for ENERGY STAR CFLs

Priorities	Lifetime	High Heat	Rapid Cycling	Run-up Time	Dimming	Compatibility with Controls	Mercury	CCT	CRI	Efficacy	Start Time	Other technologies	Outdoor Locations	Flicker	Power Factor
Goals	Long lifetimes and very few early failures	Better labeling of applications	Better performance with rapid cycling	Short to no run-up time	High quality dimming	Better labeling	Low mercury content	Better indication of color	High CRI	High efficacy	Short to no start time delay	Inclusive of other technologies	Perform well outdoors	No flicker	High power factor
ENERGY STAR current criteria	Average Rated Lamp Life > 8,000 hours Interim Life Test	Reflector lamps only - Elevated temperature life testing pass > 6,000 hours	For every 2 hours of rated lamp life, a cycle must be tested	Indoor reflectors: 3 minutes Non-amalgam: 1 minute, Amalgam: 3 minutes	None	Lamp package must clearly state any known incompatibility	5 mg (lamps < 25 W) 6 mg (lamps 25 to 40 W)	2700K, 3000K, 3500K, 4100K, 5000K, or 6500K	Average of the 10 samples tested must be greater than 80	pw < 15: 60 lm/W 15 < pw < 25: 65 lm/W pw > 25: 70 lm/W	Time after switching on shall be less than 1.00 second	NA	Package must state the min starting temperatures or geographical zone of use	None	Must be greater than 0.5.
Option A	Increase lifetime requirement for bare spirals	Investigate impact elevated temperature testing		Educate about amalgam	Develop dimming test procedures	Explore ENERGY STAR criteria for controls	Collect data on mercury amounts for all product	Adopt FTC labeling requirements	Ra ≥ 82, R'a ≥ 70, Ri ≥ 40, R9 ≥ 12			Support technology neutral spec			At full power, PF greater than 0.7
Option B	Develop a manufacturer failure rating				Electronic Switch Life Testing			CCT 2850 K or lower.							
Option C	Third-party testing				Switch Performance										

2. Lighting for Tomorrow Competitions

▶ SSL Competition

- Increase number of SSL fixtures and lamps eligible to participate in efficiency programs

▶ Lighting Controls Competition

- Increase the number of residential lighting control products that are compatible with energy efficient technologies
- Increase in lighting energy savings above and beyond those generated by ENERGY STAR products alone

3. Comprehensive Program Work

- ▶ Working group of CEE members and industry representatives
- ▶ September 30: CEE Industry Partner Meeting
- ▶ December 8: Working Group Call
 - "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."
- ▶ Survey being fielded now

3. Potential Outcomes of Comprehensive Program Work

- ▶ Program definition and scoping documents
 - Outlines the data that regulators would need to support these program approaches
- ▶ A program guidance document
 - Details the transition to more comprehensive lighting programs
- ▶ A central resource for participants to share relevant information, including studies and early pilot results

NYSERDA's Right LightSM Strategy

- ▶ Joint residential and commercial lighting initiative
- ▶ Educate lighting consumers on effective lighting design practices and energy-efficient lighting products
- ▶ The more quality, energy-efficient lighting products in the market, the more kWh savings will be generated
- ▶ Important to consider other light sources beside traditional technologies such as fluorescent and SSL

NYSERDA's Right LightSM Strategy

▶ Products

- Research new technologies that have benefits similar to traditional technologies, i.e. sulfur plasma, electroluminescent lighting
- If research findings are positive, may be considered for small pilots that could lead to eventual program adaptation

▶ Design

- Materials will be created to educate on the principles of effective lighting design
- An interactive web site is the prime medium to deliver this information to interested consumers

Discussion

- ▶ How do the efforts that were discussed today fit into your current program plans?
- ▶ Do think they are sufficient in delivering additional lighting energy savings in the future?
- ▶ Are there other opportunities/approaches we should consider?

Contact

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