

CEE Industry Partners Meeting

Commercial Lighting Breakout Session

September 20 2006

Joe Howley
Mgr. – Industry Relations and Environmental Marketing
GE Consumer and Industrial - Lighting

Commercial Lighting Industry Trends

- Trends in commercial construction
 - Strong Construction Market in 2006 YTD
 - Lodging – up 26% – CFL & Linear Fluorescent
 - Office - up 10% - T8, T5 and Electronic Ballasts
 - Commercial (Retail) – up 8% - T8, T5, and CMH
 - HealthCare – up 14% - T8, T5, and CFL
 - Manufacturing - up 22% - Metal Halide, Fluorescent High Bay
 - Mandatory Building Energy Codes
 - Driving Energy Efficient Designs
 - Voluntary Green Building Programs
 - Energy Star Buildings, LEED and Green Globes
 - Driving Energy Efficient Designs
 - T8 and T5 Growing Rapidly, T12 Declining – Trend Continues
 - T8 – approx. 60% of General Lighting Market for 4' and U lamps

Commercial Lighting Industry Trends

- Technological developments
 - Proliferation of T8 Products
 - Premium 32 Watt Products
 - High Lumen, Long Life, Protected
 - Reduced Wattage T8
 - 30 watt, 28 watt and 25 watt.
 - Long life versions of reduced wattage lamps
 - High CCT versions, 5000K, of most T8 lamp types.
 - T5 Products
 - Longer Life Ratings,
 - Higher CCT versions – 5000K and 6500K
 - Eco Ratings- Non-Hazardous Waste

Commercial Lighting Industry Trends

- Technological developments
 - Ceramic Metal Halide (CMH)
 - Additional Product Offerings
 - Higher wattage
 - Unique Packages – MR16
 - Compact Fluorescent
 - Smaller Sizes – T2
 - Longer Life – 12,000 hrs+
 - Dimmable Reflector Lamps
 - Dimmable Standard Lamps

Commercial Lighting Industry Trends

- International agreements or pressures
 - EU RoHS Regulation
 - Bans or Limits use of Mercury, Lead, & Cadmium
 - Effects Products made for International Market
- Regulations – EPACKT
 - New Efficiency Limits – CFL
 - Ban on Products
 - Mercury Vapor Ballasts, EM T12 Fluorescent Ballasts
 - Tax Incentives
- Regulations – States
 - Regulating Products
 - R40, R30, ER40 – 65 watts max, ER30 – 50 Watts Max.
 - Pulse-Start Metal Halide Ballasts in new Fixtures
 - Used to operate CMH or Pulse Start Lamps

Commercial Lighting – The Next Big Thing

Given these trends, where are the opportunities for joint impact in commercial lighting over the next 5 years?

- Design – Self Regulating
 - Energy Efficient Design will be required to:
 - Meet Building Energy Codes
 - Meet Voluntary Green Building Standards
 - Qualify for Tax Incentives
- Particular product families
 - Promote High Lumen T8 for New Construction
 - Promote Lower Wattage T8 for Existing T8 Designs
 - Promote CMH, CFL, T5 and Pulse Start MH
 - Promote Halogen-IR where Incandescent is required
 - Promote White LED where applicable

Commercial Lighting – The Next Big Thing

- Behavior
 - Increasing electric rates, increasing information on global climate change, and stricter building code regulations will drive building owners and operators to seek out more energy efficient lighting equipment and building designs.

Commercial Lighting - Partnerships

Given these trends, what would be useful partnerships?

What would you want from regulators, from energy efficiency organizations, that would make your job easier as we move forward?

1. In early stages, promotion of new energy efficient lamp and ballast families should be broad and inclusive, not constrained. – Penetration is low.

Ex. Low Wattage T8 Specification.

(Specification tightening can occur in later stages if necessary.)

2. Include information on Federal Tax Incentive in Utility Promotional Programs.

Let users know it is available.