

CEE Commercial Sector Overview

January 14, 2009
San Francisco, CA
www.cee1.org



Working Together, Advancing Efficiency

Session Agenda

- Introduction
- CEE at Work & New Functions
- Commercial Initiatives: Status & Proposed 2009 Direction

CEE at Work: Member Benefits

- Commercial Staff – 4
- Commercial Program Committees – 5
- Annual Meetings
 - 2 Program Meetings, 1 Industry Partners Meeting and 1 Market Transformation Symposium
- Annual Program Summary
 - <http://www.cee1.org/com/programsummary/index.php>
- Website – www.cee1.org
 - Connects members with initiative materials and developments
 - Online news, newsletter, latest developments

CEE Commercial Initiatives: Current Work Area Coverage

Work Area	Approved	Approach
Commercial HVAC	1993	High performance equipment (unitary) plus quality installation
Commercial Lighting	2004	High performance systems (initially T8, lamp plus ballast)
Commercial Kitchens	2005	“Bundled” offer (cooking, refrigeration, sanitation) plus sector marketing
Data Centers	2007	Equipment, systems (IT plus support systems), facilities
Whole Building Performance <i>(Exploration)</i>	N/A	Buildings – framework in development

CEE Commercial Team

Name	Title	Phone/Email	Work Area
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Jason Erwin	Senior Program Manager, Sector Lead	617-589-3949 Ext 212 jerwin@cee1.org	Data Centers Whole Buildings
Afroz Khan	Senior Program Manager	617-589-3949 Ext 208 akhan@cee1.org	HVAC
<i>Casey Erisman & Alison Nihart</i>	<i>Program Services</i>	<i>617-589-3949 Ext 206, Ext 215 cerisman@cee1.org anihart@cee1.org</i>	<i>Support (i.e. QPLs, Research)</i>



Commercial Initiatives: 2009 Proposed Direction

- Build on 2008 work area impacts and strategies
- New functions to streamline access to information, enhance communication of relevant opportunities
 - ✦ “Ask the Experts”
 - ✦ “All Things Commercial”
- Proposal for enhanced CEE website

CEE Commercial Initiatives: HVAC Initiative Background

Goal: To encourage the proper installation and widespread use of high-efficiency air conditioners and heat pumps in commercial buildings.

- ✓ Unitary AC and HP Specification (approved in 1993)
- ✓ HVAC Quality Installation Guidelines (March 2001)
- ✓ ACCA/ANSI QI Standard (May 2007)

CEE Commercial Initiatives: HVAC Update

Unitary AC/HP Specification

- Tier 1 for small commercial retired in April '08, Tier 1 for large commercial will retire in Feb '09 (pending board approval).

Quality Installation

- Subcommittee formed to look at the ACCA/ANSI Quality Installation Standard.
- Provided initial comments in early Jan '09.

Other Areas of Exploration

- Committee coordinating where appropriate with CEE Gas Committee on Space Heating topics.

CEE Commercial Initiatives: HVAC Strategy for 2009

Unitary AC and HP Equipment

- Working with ESTAR to seek alignment of our Tier 1.
- Communicating with AHRI on guidance regarding the 1/1/2010 replacement of IPLV with IEER and ICOP.
- Exploring the development of an advanced roof-top unit specification based upon a rating system.

Other Efforts

- Continuing to refine upon the ACCA/ANSI Quality Installation Standard.
- Quarterly forums to discuss upcoming technologies.
- Continuing to explore a systems approach to defining efficient HVAC performance.

CEE Commercial Initiatives: Lighting Background

- High Performance Commercial Lighting Systems Initiative approved in Nov.04
- Initial effort addressed High Performance 32W T8 Lighting Systems (New Construction)
- Broadened scope to include specification and application guidance for reduced wattage (25W & 28W) T8 products (Retrofit)
- Qualifying product lists updated monthly

CEE Commercial Initiatives: Lighting Update

- In 2007, an MOU was signed between NEMA and CEE that establishes CEE's specification as the basis for the NEMA Premium ballast program
 - Seven manufacturers enrolled
 - Now listing dimmable ballasts
- Solid-State Lighting – Inform members of relevant technical information and program design.



CEE Commercial Initiatives: Lighting Strategy for 2009

- Support CEE's existing specifications for continued technical feasibility and relevance
- Leverage relationships with NEMA, industry and key market players to build the awareness of the initiative
- Evaluate and identify emerging technologies for energy savings opportunities (systems, controls).
- Continue ongoing dialogue to inform members of ENERGY STAR and related efforts in the commercial lighting arena

CEE Commercial Initiatives: Kitchens Background

“Commercial Kitchen” efficiency concept
(technical, marketing)

- Creating greater customer value through water & electric and gas savings
- Promoting efficient commercial food service equipment “as a package”
- Initially focused on restaurants, focus for 2009 to broad to entire foodservice industry

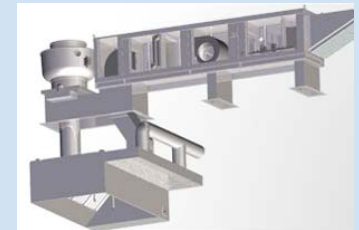
CEE Commercial Initiatives: Kitchens Update

CEE and
ENERGY STAR

CEE Advanced
Specifications

Under
Development

Advanced
Member Specs



CEE Commercial Initiatives: Kitchens Strategies for 2009

- Explore various program approaches and the conditions needed for success for each approach
- Explore new energy and water efficiency opportunities
- Maintain relevance of existing specifications
- Work collaboratively with EPA and the ENERGY STAR® program
- Increase the awareness in key stakeholder groups of member activities and energy efficient technologies

CEE Commercial Initiatives: Data Centers Background

- Initiative, Committee established in June 2007
- Primary objectives include:
 - Facilitating our industry's collective understanding of market players, industry motivations
 - Support common definitions and market understanding
 - Identifying recommended program strategies that increase data center efficiency beyond that of the industry itself

CEE Commercial Initiatives: Data Centers Update

- Consensus-based metrics, definitions, specification development
 - EPA nearing completion of tier 1 server specification
 - EPA/DOE gathering data, developing tools to support benchmarking and energy management
 - Some progress made on server, data center performance metrics
- Program development
 - Committee actively sharing program info
 - 8 members now offering data center programs or pilot offerings (more to come in '09)
 - Committee developed initial data center program model concept

CEE Commercial Initiatives: Data Centers 2009 Strategies

- Facilitate our industry's collective understanding
- Develop and support consensus-based definitions and performance specifications for servers and key end uses, where appropriate
- Continue to develop a high-level data centers program model and common strategies
- Actively participate in the development of the related ENERGY STAR and U.S. DOE's Save Energy Now data center programs
- Leverage the national efforts and market insights of industry groups and forums

CEE Commercial Initiatives: Whole Buildings Background

- Exploratory opportunity
- Goal: To advance a whole-building program framework, infrastructure to encourage and enable whole-building commercial energy-efficiency programs
- Early committee efforts
 - Develop definition of an energy efficient building
 - Develop high-level program framework (model) to identify program elements, attributes and potential strategies

CEE Commercial Initiatives: Whole Buildings Update

- Increased prominence of energy benchmarking
 - Key enabling strategy for whole-building performance programs
 - Benchmarking subcommittee established in 2007
 - Enhanced functionality, support for ENERGY STAR's Portfolio Manager (i.e., automated benchmarking)
- Diverse program approaches
 - Support energy management practices, market transformation, RCx, building system efficiencies/integration, ongoing operational improvements

CEE Commercial Initiatives: Whole Buildings 2009 Focus

- Create Web-based clearinghouse of benchmarking and automated benchmarking information, oriented to efficiency programs
- Identify, discuss merits and implications of new, efficiency performance metrics at building, and building system level (e.g., lighting, HVAC)
- Create central communications forum, All Things Commercial

New Function: All Things Commercial

- **Role?** Provide CEE program administrators with consistent, peer-driven forum to track myriad national-level initiatives that affect their programs, CEE work areas.
- **Audience?** Open to all CEE members.
- **How Will it Work?** Member-driven. Committee Chair will facilitate, identify individual volunteers to be “reporters.” Reporters have a program implementation role, working knowledge of subject matter.
- **How Often?** Frequency of reports, meetings TBD (by need, could be quarterly).

New Function: All Things Commercial

- **Topics?** TBD. We need your help!
- **Some proposals:**
 - National government tax incentives
 - LEED program developments
 - National efforts to develop EE building, system performance metrics
 - BOMA Energy Efficiency Program developments
 - Enabling energy management tools, infrastructure
 - Emerging research, developments timely for program discussion