



Consortium for Energy Efficiency

16th Annual Industry Partners Meeting

October 2–3, 2019

Fort Worth, Texas

Sheraton Fort Worth Downtown Hotel



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As a business confidential record of the Consortium’s activities, this Meeting Book is not to be distributed outside the current CEE Membership and invited guests.

Consortium for Energy Efficiency, Inc.

Guidelines for Program Meetings

These Guidelines set forth policies and procedures regarding program meetings of Consortium for Energy Efficiency, Inc. (the "Consortium").

Section 1.0 Statements of Policy.

Section 1.1 General.

This Guideline applies to any meeting convened by the Consortium regarding its programs. A separate Antitrust Guideline previously adopted by the Board of Trustees remains the policy of this Consortium and is in addition to this.

Section 1.2 Objectives; Process; Outcomes.

The Consortium's program committees perform the vital work of exploring and developing Initiatives of the Consortium for proposed adoption by its Board of Trustees, monitoring the implementation and impact of the adopted Initiatives, and recommending proposed amendments to adopted Initiatives. All Program committee determinations are intended to be reasonable and objective based upon diligence and, where appropriate and practicable, peer review.

Section 1.3 Views Of Interested Parties.

It is the intent of the Consortium that the views, opinions, and expertise of all parties interested in the work of the Consortium shall be available to the committees in order to fairly evaluate all proposed actions relating to such work. It is also the intent of the Consortium that no Conflicted Committee Attendee (defined below) shall:

- (i) vote upon any committee action;
- (ii) obtain a competitive advantage in possible Requests for Proposals by CEE or its members in pursuit of the work of the committee; or
- (iii) use any information obtained through participation in the committee to solicit CEE members for grants or contracts for consulting or administrative services on the subject matter of the committee.

Section 2.0 Definitions.

"Affiliate" shall mean any individual or entity directly or indirectly controlling, controlled by, under common control with, or which employs or engages as a consultant, a Committee Attendee.

"Chairperson" shall mean the Chair, or in the case of Co-chairs, either one of them, of a program committee.

"Committee Attendee" is any person attending a meeting of a committee convened by the Consortium.

"Conflicted Goods or Services" shall mean goods or services which: (i) are the subject of any activity or initiative of the Consortium, whether in the exploratory or subsequent stage; or (ii) are the subject of any contract solicitation by the Consortium for consulting, administration, or other support of the Consortium's activities.

“Conflicted Committee Attendee” means any Committee Attendee who has, or whose Affiliate has, a financial interest in either: (A) the manufacture, sale or distribution of Conflicted Goods or Services, or (B) the solicitation or performance of grants or contracts for consulting or administrative services on the subject matter of the committee.

Section 3.0 Agenda, Minutes and Compliance with Guidelines.

An agenda shall be prepared for each and every meeting of a committee and minutes shall be recorded and distributed to each Committee Attendee. The Chairperson of the committee shall be responsible for monitoring each committee meeting for compliance with the Consortium's antitrust guidelines and these guidelines.

Section 4.0 Disclosures of Affiliation, and Interest.

Each Committee Attendee shall make explicit disclosure prior to the commencement of business of any committee meeting:

- (i) the name of such attendee's employer and the name of the entity, if different, such attendee represents at such meeting; and
- (ii) whether such attendee is a Conflicted Committee Attendee as defined above.

If at any time subsequent to initial disclosure the attendee becomes a Conflicted Committee Attendee, such person shall immediately notify the Chairperson of the committee of the conflict. It shall be the obligation of each Committee Attendee to provide full, fair and truthful disclosure to this Consortium of the matters described herein and any failure of a Committee Attendee to make such disclosure may be considered by the Consortium as grounds for exclusion of such person from Consortium activities.

Section 5.0 Committee Determinations for Advisory Action.

5.1 General.

Committee actions are advisory in nature since all final determinations of the Consortium on program matters is reserved to the Consortium's Board of Trustees. Except as specifically provided in these Guidelines, the format and conduct of meetings of any committee shall be as deemed appropriate by the Chairperson of the committee. The Chairperson of each committee shall make final determination of voting, if any, or consensus. Any Committee Attendee(s) desirous of presenting a dissenting or minority report on any committee recommendation may present the same to the chairperson of the committee who shall, in turn, report it to the Board.

5.2 Conflicted Member To Abstain.

A Conflicted Committee Attendee shall not be counted in any vote, consensus, or minority report in connection with a determination of the design, adoption or rejection of any initiative, specification, efficiency tier, program element, or any contract solicitation or award, or other activity conferring an economic advantage upon Conflicted Goods or Services.

5.3 Recusals.

In the case of meetings at which the committee is expected to make determinations of tier levels, program specifics, specifications or terms and conditions of RFP's, the Chairperson of a committee meeting shall have

the discretion to request any Conflicted Committee Attendee to leave any portion of the meeting. In the case of meetings which are exploratory in nature, at which no final vote or decision is to be made, and which are intended to lay the foundation for future planning, the Chairperson of the committee may allow the participation of Conflicted Committee Attendees up to the point of decision-making of the type described above.

Section 6.0 Duties of Committee Attendees.

6.1 Nondisclosure of Proceedings.

It is understood that Committee Attendees will be reporting to others in their own organization, or the organizations they are representing, and the obligations of nondisclosure shall be observed by anyone receiving such report. Every Committee Attendee shall use the same reasonable precautions as are taken with respect to business-confidential information of his or her own business or employer, to not disclose to anyone other than a person employed by a Member of this Consortium any of the proceedings of the Committee prior to release of such information by this Consortium approved by the Executive Director.

6.2 General Obligations.

Collegiality and unity of purpose are hallmarks of the work of the Consortium's Program committees. Accordingly, Committee Attendees are expected to observe the commonly understood principles of team play, including the following general obligations. Committee Attendees are expected to use the information obtained at committee meetings in a way which is not inconsistent with the mission of the Consortium or its business opportunities. Strategic or tactical action items arrived at in committee meetings will be implemented by Consortium staff, unless otherwise specifically designated by the Chairperson of the committee to someone else.

6.3 Removal of Committee Attendee.

The Chairperson of the committee may remove any individual from the committee based on noncompliance with these Guidelines.

Section 7.0 Confidential Market, Sales and Product Information.

Every Committee Attendee making a presentation to a committee meeting, or submitting correspondence to the Consortium, accepts at his or her own risk the possibility of disclosure by other Committee Attendees of such information, and the Consortium undertakes no obligation of nondisclosure or confidentiality with respect to such information. A Committee Attendee may, in direct communication with the Executive Director of the Consortium, request in advance that information identified in writing by the submitter as confidential shall be treated by the Consortium as business confidential and not be used or disclosed to any committee or used by the Consortium for any purpose other than the business of the Consortium. The Consortium shall not be obligated to hold any such information in confidence except as may be specifically identified in a written Nondisclosure Agreement executed on behalf of the Consortium by the Executive Director.

Transportation to the Sheraton Fort Worth Downtown Hotel 1701 Commerce Street, Fort Worth, Texas 76102

From the Airport:

Dallas/Fort Worth International Airport: Please reference the table below for travel options and the estimated cost and travel time associated with each. More information on the travel services listed can be found [here](#).

Method	Cost (estimated)	Time (minutes)
Taxi	\$50 (one way, per person)	30-40
Yellow Checker Shuttle	\$17 (one way)	60+
Rental Car	varies	30
Public Transportation	\$2.50/ two hour, \$5.00/ day pass	60+
Transportation Network Companies	varies	30-40

Public Transportation

From TEXRail Station follow signs to Terminal B departures. Take the TEXRail from DFW Airport Terminal B Station to Fort Worth T&P Station. Get off at Fort Worth Central Station (about 50 minutes). From there, the quickest option is a 0.4 mile walk (about 8 minutes) to the hotel. Head down Jones Street towards E 9th Street. Turn right onto E 12th Street (immediately after the Calhoun Street Parking Lot). Turn left onto Commerce Street (in front of the Fort Worth Convention Center). After walking on this street for two blocks, the Sheraton hotel will be on your left.

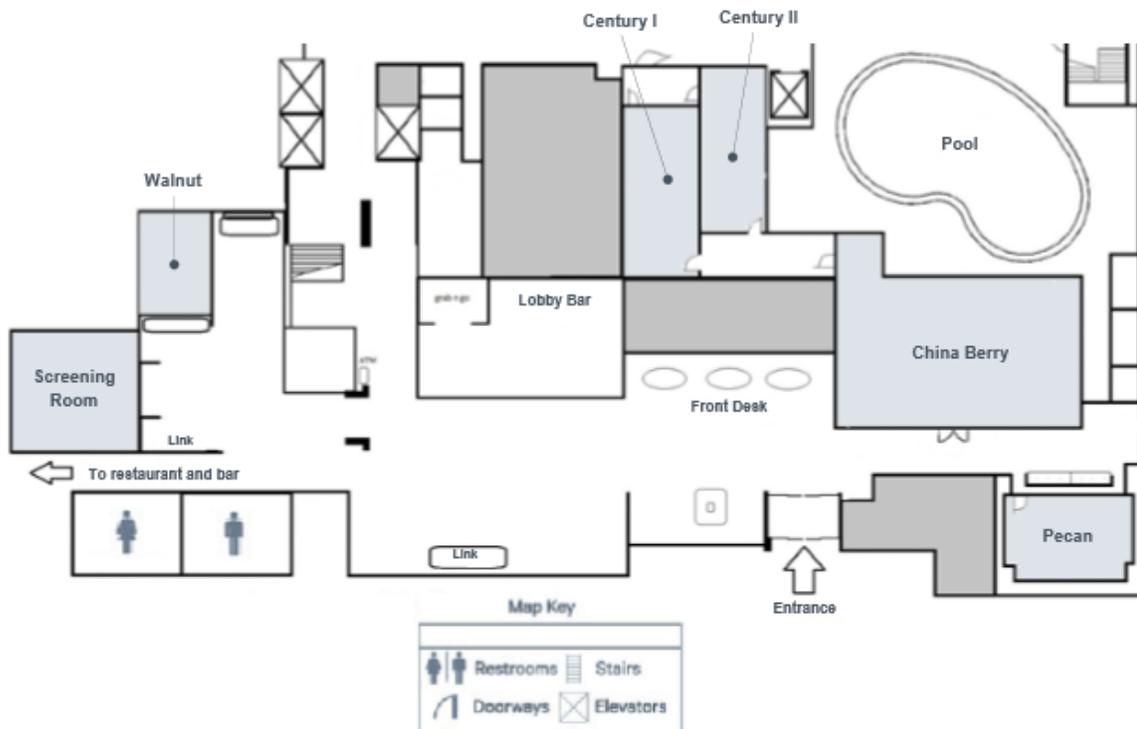
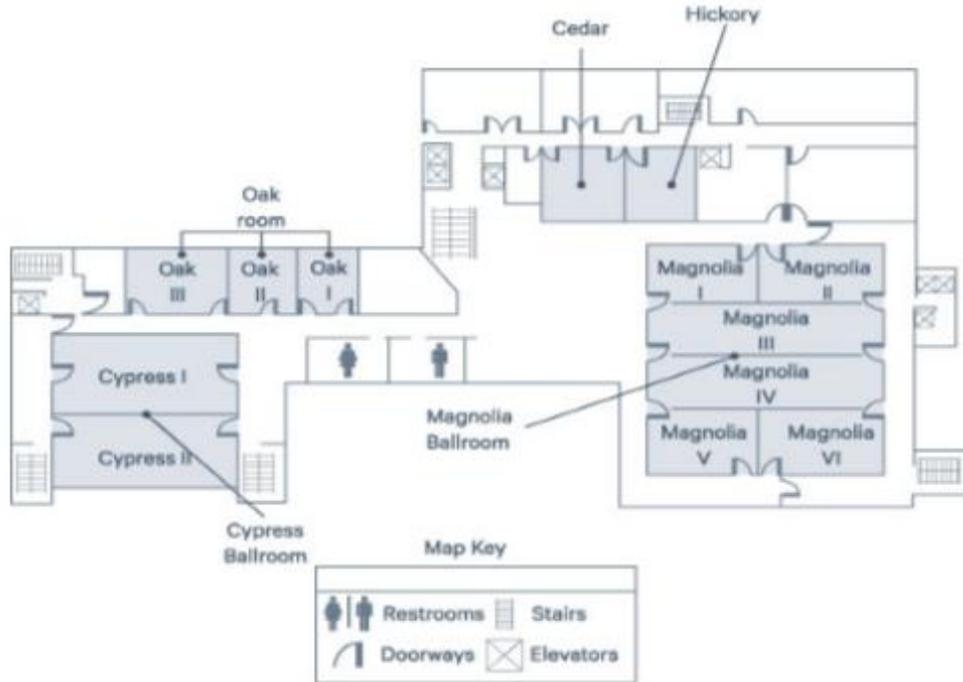
The first train arrives at 4:30 a.m. at the TEXRail Terminal B Station. The last train will leave the airport at 1:00 a.m. Passes can be purchased at DFW Airport Station kiosks or on [Trinity Metro's website](#).

For additional route assistance, view directions on [Google Maps](#).

Parking

Parking at the Sheraton is \$22 per day (+ tax).

Meeting Room Floor Plans



CEE Staff Contact Information

Corporate Team

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Tuesday, October 1

- 8:30 a.m. -4:00 p.m. **UL Test Lab Tour and Lennox International R&D Facility Tour**
(Member Pre-Registration Required)
- 4:30 p.m. – 6:00 p.m. **Residential HVAC Committee Meeting I** [Magnolia I]
- 5:30 p.m. – 6:30 p.m. **Welcome Hour**

Wednesday, October 2

- 7:30 a.m. – 5:00 p.m. Registration [Magnolia Foyer]
- 7:30 a.m. **Breakfast [Cypress Ballroom]**
- 8:30 a.m. **General Session [Magnolia III & IV]**
- 10:30 a.m. **Networking Break**
- 11:00 a.m. **Breakout Session I**
- Residential HVAC Committee II [Magnolia I]
 - Commercial Whole Building Performance Committee [Magnolia II]
 - Behavior Committee [Magnolia VI]
 - Portfolio Advisory Committee I (Invitation Only) [Oak Room]
- 12:30 p.m. **Lunch [Cypress Ballroom]**
- 1:30 p.m. **Breakout Session II**
- Residential HVAC Committee III [Magnolia I]
 - Strategic Energy Management Committee I [Magnolia V]
 - Portfolio Advisory Committee II (Invitation Only) [Oak Room]
- 3:00 p.m. **Networking Break**
- 3:30 p.m. **Breakout Session III**
- Commercial Air Conditioning and Heat Pumps Committee [Magnolia II]
 - Strategic Energy Management Committee II [Magnolia V]
 - Residential Water Heating Committee [Magnolia I]
- 5:30 p.m. **Reception [Cypress]**

Thursday, October 3

- 7:30 a.m. – 3:00 p.m. Registration [Magnolia Foyer]
- 7:30 a.m. **Breakfast [Cypress Ballroom]**
- 8:30 a.m. **General Session [Magnolia III & IV]**
- 10:30 a.m. **Networking Break**
- 11:00 a.m. **Breakout Session IV**

Industry Partners Meeting Agenda

- Motors and Motor Systems Committee: C&I Pumps Working Group I [Oak Room]
- Commercial Lighting Systems Committee [Magnolia V]
- Crosscutting Connected Subcommittees [Magnolia I]

12:30 p.m.

Lunch [Cypress Ballroom]

1:30 p.m.

Breakout Session V

- Motors and Motor Systems Committee: C&I Pumps Working Group II [Oak Room]
- Residential Committees: The Integrated Home I [Magnolia I]
- Emerging Technologies Collaborative [Magnolia VI]

3:00 p.m.

Networking Break

3:30 p.m.

Breakout Session VI

- Residential Committees: The Integrated Home II [Magnolia I]
- Commercial Water Heating Committee [Magnolia V]

5:00 p.m.

Industry Partners Meeting Adjournment

Friday, October 4

7:30 a.m.

Breakfast [Cypress Ballroom]

8:40 a.m.

Emerging Technologies Collaborative: Advisory Committee Meeting (Invitation Only) [Oak Room]

Tuesday,
October 1

Event
Descriptions

Tuesday, October 1, 2019

Day-Ahead Events

UL Test Lab Tour &

Lennox International R&D Facility Tour

All Day or Half Day Options

These tours of the UL Test Lab and Lennox International R&D Facility are open to CEE members only. CEE members who registered for one or both of the tours who have not already received the tour agenda(s) and logistics information separately should contact Alice Rosenberg (arosenberg@cee1.org).

Welcome Hour

5:30 p.m. – 6:30 p.m.

Consortium members have appreciated the chance to meet and greet each other before delving into the content of the CEE Industry Partners Meeting over the next two days. For attendees arriving on Tuesday, please join staff representing each CEE sector for Dutch-treat style refreshments at the hotel.

Dinner

6:30 p.m.

Following the Welcome Hour, several CEE staff will be available to lead interested attendees to dinner at one of the many nearby world-class restaurants.

RESIDENTIAL HVAC –ELECTRIC, NATURAL GAS, and CONNECTED

Alice Rosenberg, CEE

Description CEE is working to revise its longstanding *CEE Residential Heating and Cooling Systems Initiative*. Members are seeking to address several new or evolved objectives through this update, to reflect the myriad of technical, market, and portfolio changes impacting residential HVAC programs. During this session, participants will review the draft revised Initiative strategy, which includes several key features:

Systems Approach: Traditional one-for-one equipment replacement program models may not enable the greatest savings potential. The CEE draft Initiative emphasizes increased focus on the ability for programs, contractors, and installers to select optimized HVAC solutions relative to the individual needs of the home/users that promote customized recommendations.

Metrics and Testing Methods: Current federally regulated rating metrics and methodologies for differentiating equipment are not consistently reliable indicators of real-world performance or expected energy savings. CEE is interested in identifying metrics that better reflect in-field performance and load-based methods for measuring energy, once those are deemed viable and market-ready by members and industry.

Technology and Innovation: Heating and cooling options are becoming increasingly advanced and also diverse in the residential market; the CEE Initiative, therefore, requires a more holistic approach for differentiating high performing products and systems and facilitating a flexible strategy for both defining equipment as well as promoting different technologies that achieve specific functions.

Quality Installation: Equipment performance remains limited without proper design and installation, and yet quality installation (QI) is an ongoing challenge for programs to deliver in a cost-effective manner. CEE is exploring ways to enhance the existing QI requirements to enable greater adoption and support member needs, though possibly 1) additional support for ACCA 5, 2) compliance pathways that leverage control/sensor data points, and 3) introduction of tiered options.

Objectives

- Examine, assess, and come to consensus positions on the collective strategies outlined in CEE’s draft *Residential Heating and Cooling Systems Initiative*
- Provide feedback on how to enhance the Initiative strategy and requirements before finalizing a proposal to bring before the CEE Board of Directors for authorization and publication.
- Identify consensus Initiative elements that will garner utility and HVAC industry promotion.

Agenda

Welcome and Background, CEE
Group Discussion (see detailed topics above)
Next Steps and Timeline

Location
Magnolia I

- Informative
 Deliberative

Who Should Attend

- Program Designing & Planning
 Program Management
 Marketing & Outreach
 Evaluation or Market Research
 Regulatory Affairs
 Technology & Engineering
 Portfolio Management
 Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-885-3221

Access Code: 7133572#

Wednesday,
October 2

General Session
Descriptions

8:30 a.m. **Introductions**

Ed Wisniewski, Executive Director, CEE

Welcome Address: Powering Texas

Autry Warren, Vice President Customer Operations, Oncor Electric Delivery

8:55 a.m. **From Past to Present: Energy Efficiency Programs and Industry Trends**

Presenter: John Boladian, Director – Energy Efficiency, DTE Energy

During this session, the Chair of the CEE Board of Directors will offer preliminary findings from the 2019 CEE Annual Industry Report, which measures efficiency program budgets, expenditures, and impacts offering insight into general program trends in the US and Canada. Using this dataset, which over the years has been extensively cited by energy media, financial analysts, government agencies, energy management companies, and CEE members, the presenter will highlight unique findings for gas and electric programs relevant for industry partners. Understanding is further enhanced by the complementary CEE Program Performance Benchmarking framework and dataset comprised of key performance metrics yielding a reliable empirical basis to drive introspection and improve program impact and design.

9:30 a.m. **How a Shared IDSM Framework Manifests in Different ISO Regions**

Panelists: Mike Stockard, Stockard Energy Advising; Zachary Sussman, ConEdison; Don Brundage, Southern Company; Nik Schruder, IESO; and Jeffery Kosak, Xcel Energy

While continuing to deliver customer energy and bill savings, CEE members are evolving their portfolios of voluntary customer programs to serve new objectives. Grid balancing, load forecasting and resource planning, load management, incorporation of behind-the-meter generation, and decarbonization are examples of how programs are expanding their purpose. How does this influence the technologies and functionality that will be promoted in the next generation of "energy efficiency" programs? What role will connected, automated products play? What new business opportunities will be enabled? During this session, utility leaders representing several different regions of the U.S. and Canada will present how the shared IDSM framework developed at CEE relates to their local service territories. Industry attendees will be encouraged to share observations about how their new products could be called upon by customers to capitalize on these opportunities, and to identify discussion topics to address during the afternoon breakouts.

10:30 a.m. **Networking Break**

Wednesday,
October 2

Breakout
Session I
Descriptions

RESIDENTIAL HVAC – ELECTRIC and NATURAL GAS CEE Initiative Revision: Efficiency Specifications – The Brass Tacks

Alice Rosenberg and Patrick Casper, CEE

Description Central to the revision of *CEE’s Residential Heating and Cooling Systems Initiative* is developing consensus-driven specifications for differentiating high performing equipment. In order to reflect current and future program opportunities for achieving the broadest range of energy savings, members are proposing a comprehensive suite of product specifications that complement a broader Initiative strategy with the goal of emphasizing custom recommendations for individual retrofit scenarios. Draft specifications for discussion and review during this session include:

- Central Air Conditioners (split and packaged)
- Air Source Heat Pumps (split and packaged)
- Electric equipment differentiation for specific application types that address regional considerations
- Natural Gas Boilers
- Natural Gas Furnaces
- ECM / Furnace Fans
- Low Load Furnaces
- Gas Heat Pumps

Objectives

- Finalize specification design and performance levels for natural gas and electric equipment to be included in the revised *CEE Residential Heating and Cooling Systems Initiative*. This includes central air conditioners, air source heat pumps (including climate-specific considerations), natural gas boilers, furnaces, fans, low load furnaces, and gas heat pumps.
- The electric and gas product specifications are a central piece of the broader Initiative revision. Once the full Initiative is vetted and finalized, CEE will bring it to the Board of Directors for authorization and publication.

Agenda

Welcome and Background

Alice Rosenberg, CEE

Specification Deliberation and Discussion

- Natural Gas Specification Strategy and Efficiency Levels
 - Participants will assess and work to finalize consensus agreement on performance levels and metrics for natural gas boilers and furnaces (including low load furnaces), ECM / furnace fans, and gas heat pumps
- Electric Specification Strategy and Efficiency Levels
 - Participants will discuss CEE’s proposed regional differentiation as a strategy to provide more flexibility in application of proposed CEE Tiers
 - The group will also weigh in on the particular performance levels and metrics proposed for central A/C (split and packages) and air source heat pumps (split and packages), with the objective of identifying consensus levels

Next Steps and Timeline

Location

Magnolia I

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-885-3221

Access Code: 7133572#

COMMERCIAL WHOLE BUILDING PERFORMANCE COMMITTEE

Defining the Capabilities of Energy Management Information Systems, to support Program Adoption

Bouba Diemé, CEE

Description Energy Management Information System (EMIS) technologies can be used to identify building and system issues as part of an energy efficiency program and have been shown to contribute to energy savings. However, it is challenging to quantify the costs and benefits of EMIS (e.g. energy information systems and fault detection and diagnostics tools) as there is no standard assessment method/criteria. To explore potential pathways to address this gap, the Committee has joined the Lawrence Berkeley National Lab (Berkeley Lab) EMIS field validation protocol project. The validation protocols will define EMIS performance criteria and quantify the energy and non-energy benefits of EMIS tools. The potential benefits of the project to C&I program developers is twofold: firstly, the validation protocols can be used by utilities to qualify EMIS tools for programs; secondly, the use of standardized protocols generally will allow for the results of many studies nationwide to be pooled, allowing for better, more objective comparisons between EMIS.

In this session, project findings to date and the potential value EMIS Field Protocols can provide to programs will be discussed. Then, attendees will examine how incorporating EMIS technologies in certain applications can help accelerate market adoption and share their insights to help inform future program design and standardization and specifications considerations.

Location

Magnolia II

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 1-877-885-3221

Access Code: 6198746#

Objectives

- Present the initial findings of the Berkeley Lab EMIS field validation protocol project and together with attendees, explore possible use cases of such protocols and EMIS generally.
- Explore future program design and the value that can be derived from EMIS standardization.

Agenda

Welcome and Session Overview

Bouba Diemé, CEE

EMIS Field Validation Protocols Project

Eliot Crowe, Berkeley Lab

Discussion

- How can program administrators and equipment vendors use the EMIS field validation protocols?
- What would be the impact of a standard or specifications for EMIS for the industry?
- How could key elements of EMIS support the effectiveness of future programs?

BEHAVIOR COMMITTEE

Bridging the Gap: Using a Behavioral Lens to Engage Hard to Reach Customers

Kira Ashby and Jennifer Smith, CEE

Description Both manufacturers and program administrators strive to encourage the adoption of efficient technologies and practices, yet certain audience segments remain elusive. This category of customers (or potential customers) is often referred to as “Hard to Reach” (HTR), and can include, for instance, low income or rural customers on the residential side and small businesses on the commercial side. In this cross-cutting session, attendees will have the opportunity to share who their organization’s HTR customers are and how they have aimed to more effectively engage them. Participants will also consider how behavioral social science techniques might be leveraged to help better engage these segments. During this session, attendees will identify commonalities across industry and program administrators’ respective HTR audiences and consider potential future collaboration opportunities to more effectively engage these shared HTR audiences.

Objectives

Identify high priority HTR audiences and consider potential opportunities for industry partners and program administrators to collaborate in their ongoing efforts to more effectively engage these customers.

Agenda

Welcome/Introductions

Kira Ashby, CEE

Background and/or Overview

- Kira Ashby and Jennifer Smith, CEE

Discussion

Potential Discussion Questions

1. How have program administrators categorized HTR?
2. Who are your HTR group(s)?
3. What are the barriers to these HTR group(s) purchasing your efficient products or participating in your efficiency programs?
4. How are you trying to more effectively engage these customers; what has worked?
5. Which HTR groups do program administrators and industry have in common, and are there potential collaboration opportunities here?

Location

Magnolia VI

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-805-0965

Access Code: 4089980

Portfolio Advisory Committee Meeting

Kim Erickson and John Taylor, CEE

Description This meeting is open to Portfolio Advisory Committee (PAC) members only.

PAC members who have not already received detailed meeting information should contact Kim Erickson (kerickson@cee1.org).

Location
Oak Room

- Informative
- Deliberative

Who Should Attend
PAC members only

Call-In Information
For PAC members unable to travel to the meeting, a conference call line and webinar will be provided.
Contact Kim Erickson (kerickson@cee1.org) for details.

Wednesday,
October 2

Breakout
Session II
Descriptions

CONNECTED RESIDENTIAL HVAC

CEE Initiative Revision: The Connected HVAC Conversation

Patrick Casper, CEE

Description CEE is working to revise its longstanding *Residential Heating and Cooling Systems Initiative*. As part of this effort, CEE will facilitate discussion between members and industry partners on draft connected criteria within the updated Initiative for where and how to include communicating requirements that enable efficiency gains, demand response opportunities, on-board diagnostics, in-field performance verification, behavioral change, and quality installation and maintenance. Applications for connectivity include thermostats, controls, electric equipment, and natural gas equipment.

Objectives

- Review and revise a draft specification for optional heating and cooling system connected capabilities, including demand response of variable capacity through applications of the AHRI Standard 1380, control configurations able to deliver energy savings, customized solutions for specific applications, and performance-based approaches that enable energy management opportunities.
- The (new) connected criteria are a central piece of the broader Initiative revision. Once the full Initiative is vetted and finalized, CEE will bring it to the Board of Directors for authorization and publication.

Agenda

Welcome and Background

Patrick Casper, CEE

Criteria Deliberation and Discussion

- Achieving demand response for variable capacity equipment through AHRI Standard 1380 and requiring that systems accommodate both OpenADR 2.0 and ANSI/CTA-2045-A.
 - What are the benefits and challenges with using AHRI Standard 1380 as a base for the optional DR Initiative criteria? If CEE expands upon the standard, how will that effect your organization?
- Connected criteria for all (other) residential heating and cooling products and equipment and the basic needs of members to achieve IDSM objectives while providing value to the customer.
 - Is there added value in exploring opportunities to specify capabilities of connected heating and cooling systems that are not variable capacity not utilizing demand response?

Next Steps and Timeline

Location

Magnolia I

Informative

Deliberative

Who Should Attend

Program Designing & Planning

Program Management

Marketing & Outreach

Evaluation or Market Research

Regulatory Affairs

Technology & Engineering

Portfolio Management

Government

Call-In Information

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Phone Number: 877-885-3221

Access Code: 7133572#

STRATEGIC ENERGY MANAGEMENT

Leveraging the CEE SEM Minimum Elements

Walker Larsen, CEE

Description The [CEE SEM Minimum Elements](#) define Strategic Energy Management in the market and the [CEE SEM Program Summary](#) describes how program administrators implement programs using the Minimum Elements. As program administrators and their customers gain experience with SEM, there is an opportunity to explore what program aspects work well with specific customer types and consider how to elevate energy management practices within SEM programs beyond the Minimum Elements over time. At the launch of the CEE SEM Initiative, the CEE SEM Committee identified the need to develop a CEE SEM Program Framework as a resource for energy efficiency programs and the broader SEM market. In this session, CEE SEM Committee participants will discuss their priorities for a Program Framework resource and work with industry partners on how to leverage the CEE SEM Program Framework alongside existing and planned SEM market resources.

Objectives

- Obtain industry partner input on the scope of the CEE SEM Program Framework
- Discuss how such a resource can be leveraged to advance the market for SEM programs

Agenda

Welcome/Introductions and Background

Walker Larsen, CEE

Discussion

- The CEE SEM Program Framework will document components of SEM program designs, and the way in which these program components address/support aspects of the SEM Minimum Elements. It will map SEM program design to the Minimum Elements to demonstrate how to design a program that meets the Minimum Elements while considering specific regulatory environments as well as customer operations, business models, and targets. This will support increased adoption of SEM programs by additional program administrators. The Framework will present program administrators with a set of program design options currently being used to support SEM implementation. The Framework will also collect and compare current practices for the measurement and verification of SEM energy savings.
 - In addition to the CEE SEM Program Summary and Minimum Elements, what resources and data sources should the committee use to support the development of the CEE SEM Program Framework?
 - How can program administrators and SEM practitioners use the CEE SEM Program Framework, as conceived, to help advance the market for SEM programs and services?
 - What additional market resources would program administrators like to see, to help support SEM programs?

Location

Magnolia V

Informative

Deliberative

Who Should Attend

Program Designing & Planning

Program Management

Marketing & Outreach

Evaluation or Market Research

Regulatory Affairs

Technology & Engineering

Portfolio Management

Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-885-3221

Access Code: 3041263

Wednesday,
October 2

Breakout
Session III
Descriptions

COMMERCIAL AIR CONDITIONING AND HEAT PUMP COMMITTEE

Fit for Purpose: Supporting Well-Designed, Efficient VRF Systems

[Bjorn Jensen](#), CEE

Description CEE is exploring potential enhancements to the CEE High Efficiency Commercial Air Conditioning and Heat Pumps Initiative to encourage appropriately designed, applied, installed, and commissioned efficient variable refrigerant flow (VRF) multisplit heat pump systems. Difficulty in effectively translating VRF performance ratings and manufacturer provided performance data to actual installed operation, and in identifying the appropriate baseline alternative for energy savings estimation hinder the development of standardized, mass market program offerings for VRF. Ensuring effective system design and operation in cold climates, or other low ambient conditions, is another challenge.

This session presents an opportunity for industry partners to discuss potential initiative components, such as specified functionality or additional performance criteria, and program strategies that would increase the likelihood of achieving customer benefit and enable more standardized program offers for greater scale. With this input from industry, program administrators can revise the CEE VRF Specification and the associated Initiative strategy to increase program support and market impact.

Objectives

- Identify strategies to promote appropriately designed, applied, installed, and commissioned VRF systems that advance efficiency.
- Identify additional initiative components that would increase the likelihood of achieving customer benefit
- Explore enhancements to the certified directories of VRF systems meeting the CEE Initiative requirements and address the need for more comprehensive VRF performance data.

Agenda

Welcome and Session Overview

- [Bjorn Jensen](#), CEE

Discussion Topics

- Potential modifications to the standard test procedure and supplemental performance data
- Impact of variable evaporator temperature, refrigerant line length, and other design choices on rated performance
- Application of water source systems in extreme hot and cold climates
- Leveraging onboard sensors and to-way communication capabilities for load management and to ensure efficient VRF performance
- Draft ASHRAE Guideline 41P -*Design, Installation and Commissioning of Variable Refrigerant Flow (VRF) Systems*; aspects to incorporate into the CEE initiative or members programs

Location

Magnolia II

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 1-877-805-0965

Access Code: 3653670#

STRATEGIC ENERGY MANAGEMENT

Assessing the Spectrum of Energy Management Program Designs

Walker Larsen, CEE

Description Strategic Energy Management programs require high customer commitment to continuously improve their energy management, along with other criteria defined by the [CEE SEM Minimum Elements](#). However, customers may wish to strategically manage their energy without such commitment and program administrators may offer non-SEM programs and measures designed to meet this customer need in addition to their SEM program offerings. During this session, program administrators and energy services providers will discuss the spectrum of customer energy management needs and opportunities to align program design and delivery models with customers' ability and commitment to manage their energy.

Objectives

- Identify energy management program barriers, and barriers to customer uptake of energy management programs, that are consistent across SEM and non-SEM energy management programs
- Determine complementary actions to be taken by program administrators and industry partners to address these barriers, incorporating consideration of the CEE SEM Program Framework discussed in the previous session

Agenda

Welcome/Introductions and Background

Walker Larsen, CEE

Q&A and/or Discussion

- What challenges and barriers are consistent across SEM and non-SEM energy management programs, and what actions are being taken by program administrators and third party service providers to address these barriers? What additional actions are needed?
- Is there an opportunity, for end-use equipment programs such as lighting sensors and other equipment with automated energy management features or whole building program designs to provide a pathway for customers to participate in SEM programs?
- Are there energy management program options for customers who cannot commit to Strategic Energy Management that will consistently yield credible energy savings?

Location

Magnolia V

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-885-3221

Access Code: 3041263

RESIDENTIAL WATER HEATING

Guidance is Golden: Water Heating Program Approaches that Support Market Transformation

Alice Rosenberg and Kim Katz, CEE

Description Residential water heating programs continue to evolve and employ new strategies for market intervention, despite persistent barriers to adoption. Market penetration remains low, with fewer than six percent of water heaters shipped meeting ENERGY STAR® criteria in 2018. This session will focus on transferrable approaches to program implementation for driving uptake at scale for heat pump water heaters, high-performing natural gas storage and tankless units, and connected offerings that meet demand response and energy management objectives to support the [CEE Residential Water Heating Initiative](#). Elements for discussion include program strategies or components, midstream approaches (engaging stakeholders and leveraging partnerships to improve program deployment), and connected pilots.

Objectives

- Discover successful approaches to overcome persistent market barriers and drive uptake of high efficiency water heaters, including midstream partnerships, instant rebates, and installer training.
- Identify opportunities for enhanced collaboration between program administrators and industry to collectively achieve uptake at scale.

Agenda

Welcome and Introductions

- Alice Rosenberg, CEE

Overview of Evolving Program Approaches

- Kim Katz, CEE
- Howard Merson, Efficiency Vermont
- Jesus Pernia, Eversource CT
- Fred Gordon, Energy Trust of Oregon (*invited*)

Guided Group Discussion

- How has the market penetration of high efficiency water heaters changed in your market over time, and what caused or enabled these changes to prevail in a lasting manner?
- How has your market transformation strategy evolved over the last five to ten years?
- Which strategies work and which do not? In particular, what aspects relative to midstream approaches and connected pilots have you found more or less effective than others?
- What do you still need to advance your market transformation efforts? Who can help you?

Conclusions and Next Steps

Kim will give an overview of CEE's work to date and summary of existing resources, and synthesize our discussion to inform a future Initiative revision and associated efforts.

Location

Magnolia I

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.
Phone Number: 877-885-3221
Access Code: 1055622#

Thursday,
October 3

General Session
Descriptions

General Session

Magnolia III & IV

8:30 a.m. **Welcome Back**
John Taylor, Deputy Director, CEE

8:40 a.m. **Dynamic Times for our Industry Partners: What's Changing for Critical Allies?**
Panelists: Richard Lord, Carrier Corporation; Joseph Howley, GE Lighting; and Mark Chaffee, TACO Inc.

The utility industry is not the only sector undergoing unprecedented change. In some cases (IoT, climate change, and digitization) the underlying source of change is the same, while others are unique to a given industry. During this session, invited representatives from the HV ACR, Lighting, Hydraulics, and ESCO industries will sketch out a snapshot of their current industry dynamics, homing in on issues relevant to CEE members administering voluntary programs. Understanding some of the focal points of these industries will inform current collaborations and perhaps identify new opportunities. Other industry attendees will be encouraged to share similar disruptions affecting their business operations and CEE members will have an opportunity to posit new program models that reflect the business realities presented.

9:40 a.m. **CEE Short Takes**
CEE staff will provide key updates coming out of member-driven committees, projects, and explorations, including the application and adoption of CEE's consensus principles of connected products reflected in a comprehensive Integrated Home platform and connected home design competition; a new CEE Initiative for Commercial and Industrial pump systems; exploring expansion of the Commercial Lighting Systems Initiative to address whole building opportunities; an international project to enhance program design for "hard to reach" customers; and CEE's data driven methodology to benchmark energy efficiency program effectiveness. Come hear about all the great work members are doing through the Consortium and new partnership opportunities for our industry partners.

10:30 a.m. **Networking Break**

Thursday,
October 3

Breakout Session
IV Descriptions

MOTOR SYSTEMS COMMITTEE: C&I PUMPS EXPLORATION

Launching a New Market Strategy: Pump Systems Initiative Voluntary Specification and Strategies

Chris Sullivan-Trainor, CEE

Description The CEE Commercial and Industrial (C&I) Pumps Working Group will be finalizing a new CEE Initiative for C&I Pump Systems, including a voluntary product specification for clean water pumps and strategies to increase customer demand for and access to the best performing products for a given application. Strategies include engaging the pump supply chain about new energy performance metrics, in part through support for a defined voluntary energy performance specification supported by CEE members. At the Industry Partners Meeting, program administrators and industry will discuss industry comments on the draft Initiative and respective roles to best promote the identified market strategies.

Objectives

- Review Pump Systems Initiative Draft
- Discuss Industry Comments and Potential Initiative Revisions
- Discuss circulator pump opportunities and market strategy

Agenda

Welcome/Introductions and Background
Chris Sullivan-Trainor, CEE

Q&A and/or Discussion

- Do industry partners have any suggested modifications to the draft Initiative description? What is the basis for the suggestions?
- What industry comments would members like to discuss, and what changes to the proposal are warranted?
- What program tactics have been most effective at engaging the supply chain about the opportunity presented by high efficiency pumps, and how do these compare to industry partner experiences?
- What are additional market strategies to increase market availability and installation of high energy performance circulator pumps and what information is needed to justify program support for these strategies?

Location

Oak Room

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-885-3221
Access Code: 6735635

COMMERCIAL LIGHTING SYSTEMS COMMITTEE

Understanding the Role of Advanced Lighting Systems in Energy Management Programs

Bjorn Jensen, CEE

Description CEE members are investigating the emerging value propositions of advanced connected lighting systems and their role in energy management approaches that support customer and program administrator consideration of the time and locational value of energy for enhanced customer and grid benefits. Four aspects of connected lighting systems that energy program administrators are exploring to advance integrated demand side management (IDSM) objectives are: energy monitoring and analytics, external system integration, demand response and load management capabilities, and nonenergy benefits such as improved productivity, indoor air quality (IAQ), safety, and security. In this session, Lighting industry partners will share their perspective on emerging connected lighting system capabilities valued by customers and insights on emerging capabilities relevant to energy management. Together, industry partners and CEE members will hone connected lighting IDSM use cases that support shared program administrator and industry partner objectives and discuss how to advance items of common value more quickly, including the role of standards development.

Objectives

- Refine connected lighting IDSM use cases that enhance energy management and customer engagement approaches.
- Identify opportunities to collaborate to advance common valued items more quickly, such as defining and establishing desired performance metrics, capabilities, or consensus guidance that could be incorporated into the CEE Commercial Lighting Initiative

Agenda

Introductions and Session Overview

Bjorn Jensen, CEE

Program Administrator Round Table Discussion

- To what extent are lighting system upgrades in your area incorporating the list of emerging lighting control capabilities? What are the primary challenges you've encountered?

Sample Discussion Questions

- Do lighting industry partners agree with the characterization of connected lighting IDSM use cases presented? How do they align with how customers are valuing connected lighting system capabilities?
- What is the value proposition of integrating lighting control with other systems? What kinds of sensing should be integrated? Which technologies lend themselves to integration and, for those that don't, what are the barriers?
- What is your perspective on the market need for IoT upgradability?

Location

Magnolia V

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 1-877-805-0965

Access Code: 3653670#

CROSSCUTTING CONNECTED

Interoperability: Dissecting the Why, How, and What it Means for CEE’s Initiatives

Patrick Casper, CEE

Description Interoperability is a key aspect of Integrated Demand Side Management (IDSM) activity across all sectors and within the CEE Integrated Home platform. Interoperability across diverse products produced by different manufacturers is desirable to CEE members, as it increases the opportunity to serve as an energy ecosystem resource, and enables customers to retain flexibility for future choices of investment across devices and service providers. This session will provide a forum for attendees to take a critical look at how existing standards and protocols have evolved in the market to date and what the implications are for various actors throughout the channel of demand side players. Participants will engage in a dialogue with a panel of entities leading the way in distribution system interoperability on what the key components to IDSM and the energy efficiency market needs are, what role standardization plays, and how it all comes together for different stakeholders.

Objectives

- Provide members and industry partners a better understanding of interoperability, how it effects the energy efficiency industry, and how each stakeholder’s assets in connected systems interact with each other.

Agenda

Welcome, Introductions, and Background

- Patrick Casper, CEE

Overview of Current Communication Standards in the Market

- Speakers will provide historical background and context for various the standards of OpenADR, CTA-2045, and AHRI Standard 1380, and different pathways to achieve interoperability; they will also present how these standards address barriers to interoperability.
- Participants familiar with the standards will provide additional insight into the adoption of the protocols; they will share objectives and reasoning behind the decisions to reach those IDSM goals in relation to utilities, industry, and the customer.

Questions and Discussion

- What are the challenges and opportunities with interoperability and standards? How can they be leveraged to meet evolving and dynamic IDSM objectives, energy efficiency market trends, and customer needs?
- What role does accountability to the customer play in the interoperability ecosystem and what strategies are being adopted by your organization to ensure value to the end consumer?

Location

Magnolia I

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-885-3221

Access Code: 7133572#

Thursday,
October 3

Breakout Session
V Descriptions

MOTOR SYSTEMS COMMITTEE: C&I PUMPS EXPLORATION

What's Next: Future Considerations for Pump Energy Performance and Emerging Technology

Chris Sullivan-Trainor, CEE

Description Motors and motor-driven systems may deliver improved customer energy performance, additional grid benefit, and intelligence to enable new energy management across several of the IDSM value areas. New technology in motors, controls, and system sensing may enable better customer and utility awareness of system performance, enabling more accurate forecasting and optimization for energy savings. There is also the potential added benefit of identifying and isolating critical loads to enable load reduction.

Pump Systems have the potential for external controls and sensors, and in some applications are being manufactured with built-in controls that are integral to the pump design and performance. CEE staff and members are working to understand the additional energy performance benefits these technologies can provide, and how to enable their benefit for customers. This session will seek industry input on potential energy management benefits provided by connected pump technology.

Objectives

- Share values identified by program administrators for energy performance management from connected pumps
- Identify existing and near future connected pump capabilities
- Discuss additional energy and nonenergy impacts from connected pumps

Agenda

Welcome/Introductions and Background

Chris Sullivan-Trainor, CEE

Q&A and/or Discussion

- How do connected pumps empower customers and improve relationships with energy providers?
- How do connected pumps enable greater participation in utility programs?
- What features of connected pumps have led to more adoption?
- What are the connected pump features that unlock energy performance data and opportunities from pump systems to best support energy efficiency program adoption and customer benefit?

Location

Oak Room

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-885-3221

Access Code: 6735635

RESIDENTIAL INTEGRATED HOME

Defining Value: Characterizing the Layers of Significance that Connectivity Offers Utilities

Eileen Eaton, CEE

Description CEE members have been working to achieve consensus around the different value streams that connected capabilities can provide to program administrators across the US and Canada. CEE will share and engage on the key value streams identified by residential program managers that can be realized from the CEE Integrated Home. Attendees will have the opportunity to learn and discuss how and why the priority of these value streams vary by geography, as well as how their relative importance may evolve for individual utilities in the future. Participants are encouraged to assess and use these insights to inform the design of programs, products, and services with the objective of developing a shared platform at CEE to leverage planned investments and delivering these value streams.

Objectives

- Provide participants with a greater understanding of how residential program offerings are characterizing and prioritizing different value streams associated with connected capabilities, both now and as objectives evolve in the future.
- Inform the development of and revisions to CEE Initiatives relative to optional connected criteria and Integrated Demand Side Management (IDSM) positions to provide greater consistency and success in the market.

Agenda

Welcome and Overview

- Eileen Eaton, CEE

CEE Member Insights and Q&A

- CEE members will speak to how the CEE consensus IDSM value streams are currently prioritized in their service territories and how they anticipate that prioritization to shift over the next 5-10 years.
- Industry stakeholders will have an opportunity to ask questions about the value streams identified and what type of program investments are being made to support those value streams (e.g. carbon reduction, demand reduction, consumer satisfaction, and resource flexibility).

Group Discussion

- The group will assess and evaluate how promotion of specific CEE connected criteria within our Initiatives can support the IDSM value streams identified and the suggested role for critical stakeholders – utilities, industry partners, customers – in the near- and long-term future.

Location

Magnolia I

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-805-0965

Access Code: 4074395#

EMERGING TECHNOLOGIES COLLABORATIVE

ET Pitch Session: What Matters

Kim Erickson, CEE

Description CEE member program administrators, manufacturers, and technology developers are regularly pitched by and to each other on the “next big thing” to invest in to advance common goals. These pitches sometimes resonate...and sometimes they don’t. This session aims to increase understanding of the criteria and considerations that energy program administrators and industry organizations think about when weighing whether to invest in a given emerging opportunity. Following a series of interactive “pitches” intended to illustrate what different audiences consider, participants will brainstorm potential approaches for energy programs to more effectively and consistently communicate what is important to program administrators when assessing emerging technologies.

Objectives

- To highlight emerging opportunities with high energy program potential
- To build a common understanding of the criteria important to program administrators and industry partners when assessing emerging opportunities for development and investment
- To brainstorm approaches to more effectively and consistently advance the previous two objectives over time

Agenda

Overview of CEE Emerging Opportunities Efforts and Consensus Criteria

Kim Erickson, CEE

Industry and Program Administrator Pitches

- Stacy Lambright, Hunter Douglas and David Bailey, Larson Doors (Window Attachments)
- George Keiser, Skycool (HVAC and Refrigeration)
- Don Brundage, Southern Company (HVAC for manufactured homes)
- Zach Sussman, ConEd (Smart ACs)

Discussion: Assessing Value and Future Options

- Participants will reflect on the value of this type of interaction and, depending on the value, brainstorm/assess different options for accomplishing similar objectives consistently over time

Location

Magnolia VI

Informative and Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-805-0965

Access Code: 690-3572

Web:

<http://cee.adobeconnect.com/etpitch2019/>

Thursday,
October 3

Breakout Session
VI Descriptions

RESIDENTIAL INTEGRATED HOME

Delivering Value: Judging the Features of Connected Home Products, Systems, and Platforms

Eileen Eaton, CEE

Description To support the CEE Integrated Home platform and the associated value streams in this dynamic market, continual collaboration and communication with industry stakeholders is essential. Most recently, CEE has been working in partnership with a variety of constituents to develop a competition platform for connected home offerings – *Lighting & Homes for Tomorrow*. The Lighting & Homes for Tomorrow Steering Committee has developed robust evaluation criteria to assess the ability of connected entries to yield integrated demand side management (IDSM) program benefits and deliver a positive consumer experience. During this session, participants will hear how the current evaluation criteria is designed to value connected capabilities and features. Attendees will be able to provide input on how these criteria should evolve in the future to deliver on the shared value streams identified in the previous session.

Objectives

- Increase participants’ understanding of the goals and objectives that program administrators share relative to CEE’s Integrated Home platform. Learn about various residential industries’ current challenges and potential solutions to meeting these multifaceted IDSM goals and objectives.
- Obtain feedback from attendees on how the Lighting & Homes for Tomorrow evaluation criteria or other CEE optional connected criteria for individual end measures should evolve over time to support the development of connected homes products, systems, and services that yield IDSM benefits and deliver a desirable consumer experience.

Agenda

Welcome and Overview

- Eileen Eaton, CEE

Lighting & Homes for Tomorrow Evaluation Criteria

- CEE staff and *Lighting & Homes for Tomorrow* Steering Committee representatives will walk through the current evaluation criteria and demonstrate what attributes or functionalities program administrators are seeking in connected products, systems, and services. Attendees are welcome to ask questions.

Group Input and Discussion

- Are any there any key evaluation criteria missing? Do any of the criteria require more specificity to be actionable? Should the criteria be organized differently (e.g. should different elements of functionality be separated)? Do any of the criteria seem unrealistic or particularly challenging to meet? Would you prioritize some criteria over others? If so, which ones?

Location

Magnolia I

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 877-805-0965

Access Code: 4074395#

COMMERCIAL WATER HEATING COMMITTEE

Expanding the Commercial Water Heating Initiative Scope from Equipment to Systems

Bjorn Jensen, CEE

Description The commercial water heating industry is moving towards a holistic system-based approach to achieve efficient real-world performance. In recognition of this trend and emerging water heating technologies, CEE members are considering expanding the Commercial Natural Gas Water Heating Initiative to move from a focus on commercially rated water heaters to commercial water heating systems that incorporate emerging technologies including electric options. The Committee’s immediate focus is expanding the Initiative to incorporate gas heat pumps, boilers, combination systems, and associated system considerations, including specifying pipe insulation, pump efficiency, drain water heat recovery, and identifying the right applications and attributes of a good recirculation system.

Participants will discuss the potential scope of proposed Initiative revisions, including consideration of new efficient technologies that could be included. Attendees will also examine how incorporating these technologies in certain applications can help accelerate market adoption and share insights to help inform system design considerations that can be addressed in the revised Initiative.

Objectives

- Develop consensus definitions of commercial water heating market segments and applications in terms of usage patterns, capacity, temperature, and other key dimensions
- Determine how to specify applications for which certain system types and designs apply

Agenda

Welcome and Session Overview

Bjorn Jensen, CEE

Commercial Heating Technology Roadmap

- What are your thoughts on the market trajectory for the emerging technologies and system types under discussion?
Which applications are well suited to these different water heating solutions?

Discussion

- How can the revised Initiative specify technology combinations and applications to which certain system designs apply?
- What system design practices are recommended when considering the use of new or emerging technological solutions for specific applications?

Location

Magnolia V

- Informative
- Deliberative

Who Should Attend

- Program Designing & Planning
- Program Management
- Marketing & Outreach
- Evaluation or Market Research
- Regulatory Affairs
- Technology & Engineering
- Portfolio Management
- Government

Call-In Information

For members unable to travel to the meeting, a conference call line will be provided.

Phone Number: 1-877-805-0965

Access Code: 3653670#

Friday, October 4

Day-After Session
Descriptions

EMERGING TECHNOLOGIES COLLABORATIVE

Advisory Committee Meeting

Kim Erickson, CEE

Description This meeting is open to Emerging Technologies Collaborative (ETC) Advisory Committee members and their designees only.

Advisors who have not already received detailed meeting information should contact Kim Erickson (kerickson@cee1.org).

CEE members who are interested in learning more about sponsoring the ETC should contact Kim Erickson (kerickson@cee1.org).

Location

Oak Room

- Informative
- Deliberative

Who Should Attend

ETC Advisory Committee Members or their designees only

Call-In Information

For ETC Advisory Committee members unable to travel to the meeting, a conference call line and webinar will be provided.

Contact Kim Erickson (kerickson@cee1.org) for details.

“Who Should Attend” Descriptions

Program Design and Planning

Responsible for developing and proposing programs including specification levels, evaluating cost-effectiveness, establishing rebate amounts, and deciding which activities the program will encompass (e.g. stakeholder education)

Program Management

Oversees the delivery of programs and can provide insights for the CEE process regarding what has worked and what has not

Marketing and Outreach

Promotes programs to the public and trade allies and makes decisions regarding promotional materials, advertising placements, and conducting on-line promotions

Evaluation or Market Research

Plans and oversees: market research for program planning or baseline setting, tracking and assessment of program impacts, progress towards program goals, and/or process evaluation. May also collect and analyze data in support of these efforts.

Regulatory Affairs

Responsible for working with regulators on rate cases

Technology and Engineering

Qualified to evaluate the technical potential, performance, or safety of equipment under consideration for inclusion in programs

Portfolio Management

Responsible for assessing efficiency program objectives, timelines, and resources (for a sector or the total portfolio), planning a set of sector programs needed to meet requirements beyond the current program year, and maintaining a balance of sector program activities across the portfolio in order to achieve multi-year goals, among other responsibilities

Government

Has government perspective of working toward energy efficiency goals

**As a business confidential record of the Consortium’s activities, this Meeting Book is not to be distributed outside the current CEE Membership and invited guests*

Supplemental Information

Nearest Pharmacy

CVS Pharmacy
515 Houston St, Fort Worth, TX 76102
(817) 820-0488
Store Hours: Monday-Sunday, 7:00 a.m. to 10:00 p.m.

Nearest Hospital and Emergency Room

[Medical City Fort Worth](#)
900 8th Ave, Fort Worth, TX 76104
(817) 877-5292

Nearby Restaurants

Please use [this link](#) to see an interactive map containing restaurants in the area.

