

CEE MEETING NOTES

Industrial Program Planning Committee Energy Management Subcommittee: Kick-Off Meeting

Wednesday, July 23, 2008 12:30-1:30 pm, EDT (9:30-10:30 PDT)

Participants (9)

Name	Organization	Name	Organization
Ted Jones	CEE	Jessica Zweig	NYSERDA
Sandra Hall Henry	ComEd	Liliana Urmuzache	Ontario Power Authority
Kevin Keena	National Grid	Patrice Lundquest	Snohomish County PUD
Michael Pace	National Grid	Tamara Gunderzik	Xcel Energy
Sergio Dias	Northwest Energy Efficiency Alliance		

Overview

This call was the first meeting of a subgroup of members interested in exploring energy management as an opportunity to enhance the effectiveness of industrial programs. During the call members identified whether or not their programs currently support energy management. They also developed a working definition of energy management from a program perspective. Finally they began to identify the rationale for programs to support the adoption of energy management among their industrial customers. At the end of the call, the consensus of the group was to meet again in one month in order to review and refine a working definition of energy management, to review and discuss one-page summaries of current energy management programs, and to identify next steps. If the subcommittee finds sufficient value to programs and member interest in this topic, they may recommend that a model energy management program be developed through CEE’s Industrial Program Planning Committee.

Introduction

Ted Jones of CEE welcomed the participants to the conference call. CEE subcommittees follow the same meeting guidelines and ant-trust guidelines used for all CEE committees and program meetings.¹ Typically the responsible CEE staff member and a member serve as co-chairs CEE committees and subcommittees. Ted thanked Sergio Dias of the Northwest Energy Efficiency Alliance for serving as co-chair to the subcommittee.

Background

CEE’s Industrial Program Planning Committee was formed last year to explore opportunities to enhance program effectiveness through greater consistency in program design and outreach across the U.S. and Canada. The Committee is currently assessing energy savings within specific industrial sub-sectors, processes and systems. During the June CEE Program Meeting a number of committee members expressed interest in forming a subcommittee to explore energy management as an opportunity for efficiency programs. The proposed purpose of the Subcommittee is to serve as a forum for members to share program approaches (and

¹ Please contact Ted Jones at CEE, if you have not had the opportunity to review these guidelines (tjones@cee1.org)

CEE MEETING NOTES

results) related to energy management, to identify common needs and to identify supporting resources and activities, such as DOE's plant energy-efficiency certification program.

On May 29 Aimee McKane of Lawrence Berkeley National Laboratory (LBNL) briefed the Committee on DOE's Plant Energy Efficiency Certification Program. Under this program a number of energy management resources are being developed to support third-party certification of energy management, such as an ANSI-energy management standard, a series of system assessment protocols and measurement and verification procedures. On June 12 Aimee invited CEE members to work in partnership with DOE-ITP in two areas: 1) field testing the energy management standard and system assessment standards by sponsoring one or more local industrial customers to become early adopters of the plant certification program, and 2) piloting the creation of energy management practitioners by sponsoring 1-2 individuals to participate in energy management training. Assessing this opportunity and responding back to DOE is another anticipated role of the Subcommittee.

Ted commented that the Industrial Program Planning Committee has identified two potential values associated with the development of a national Plant Certification Program: 1) members appreciate knowing about the onset of a potential management trend, especially among its larger key account customers, so that their efficiency program offerings can be positioned accordingly, 2) members see benefit in greater consistency in defining industrial energy performance, defining system assessments, and eventually measuring and tracking energy performance improvements. The second could be especially valuable in helping to grow and enhance the value provided by trade allies in local markets.

Call Objectives

Ted outlines the following objectives for the call:

- Establish a common understanding of energy management and its value to programs
- Achieve consensus on the subcommittee's scope of work
- Identify subcommittee objectives and milestones
- Identify next steps

Ted noted that these objectives assume that the group can identify value to member programs in the US and Canada (currently over 100 of them) with CEE playing an active role on their behalf. During this exploration, Ted asked to group to keep in mind what kind of role they would envision CEE playing to support member energy management programs. In other words, what type of recommendation would they envision forwarding to CEE's Board of Directors. Examples include endorsing a model program approach to energy management, establishing a clearinghouse of case studies, conducting centralized outreach to selected industries, etc.

Sergio Dias commented that the Northwest Energy Efficiency Alliance had a vested interest in energy management programs and that NEEA had been supporting the energy management needs of industrial customers in the NW for the past 3-4 years. We supported the idea of CEE members exploring this opportunity by sharing their program approaches, developing a common understanding of energy management and identifying common needs. He thought it made sense for CEE members to avoid duplication of effort by working together to identify opportunities for collaboration. For example he thought sharing definitions, identifying best practice program approaches, referencing common resources and working to develop common products were good

CEE MEETING NOTES

areas for the subcommittee to work on. He also noted that we want to avoid efficiency programs going in different directions with regard to energy management program approaches, goals and messaging and that as a group, efficiency programs should avoid going in a different direction than DOE. National consistency is especially important since industrial customers often have plants that across the country if not globally.

How do Member Support Energy Management Today?

National Grid – No. National Grid supports efficiency improvements in key industrial systems such as pumping and compressed air. They also focus on injection molding, but have no “whole plant” program as they do on the commercial side. National Grid participates on CEE’s whole building committee.

Xcel Energy – Yes. Xcel’s Process Efficiency Program was launched in 2007. Tami Gunderzik noted that Xcel qualifies plants for the programs by providing a walk-thru audit and providing an Envinta One-2-Five energy management assessment session. The program offers a three-phase process to help customers integrate energy efficiency into manufacturing processes that have a minimum of 2 GWh or 8,000 mcf of conservation potential. A corporate mandate is put in place to help assure that Xcel will get the savings. (Tami Gunderzik provided additional information on this program after the call.)

Ontario Power – No. OPA has large customers in the pulp & paper, metals and mining industries. OPA does not have an energy management program, per se; however, they are launching an Industrial Energy Efficiency Program (IEEP) in about two months. The program will offer five types of incentives and measurement and verification plan certification and final report showing energy benefits certification. She referred the group to OPA’s industrial efficiency program offerings for further information - www.everykilowattcounts.com. (Liliana Urmuzache provided additional information on the program after the call.)

Snohomish County PUD – No. Snohomish has a few large industrial customers and many small manufacturers in its service territory. Snohomish reaches out them on a one-off basis using a tailored approach. (3-yr cap horizon?). Patrice has found that the customer’s decision to invest in efficiency projects really depends on the magnitude of capital expenditure available at the time (not on the opportunity at hand). Decisions are driven by the immediacy of the of available capital. She would like to see programs work with companies more systematically through training, subsidizing energy managers to develop energy management plants, etc.

NYSERDA – Yes. Jessica reported that NYSERDA supports continuous energy improvement through its FlexTech and Technical Assistance programs. Under these programs NYSERDA cost-shares the expense of hiring energy consultants to provide a variety of technical assistance services for customers, including development of long term capital budget strategies for the upgrade or replacement. The manager is knowledgeable of NYSERDA’s industrial program offerings and makes an effort to tie any recommendations and specific measures into NYSERDA’s program offerings.

CEE MEETING NOTES

NW Energy Efficiency Alliance – Yes. Sergio reported that NEEA has been working with about 25 companies over the past 2 years to promote energy management. The program begins by supporting an energy management assessment using Envinta One-2-Five®. Then an action plan is developed that addresses the companies' organizational structure, management structure, and training needs. He noted that the program is targeted to larger customers – food processing plants with 250 employees and pulp and paper plants (they are all large). Sergio commented that he would like to see this process applied to other industries and that it was especially useful in helping companies set goals. NEEA role has been to coach the industrial customers to set up a workable system. He noted that the program is delivered through a suite of contractors and costs approximately \$50,000, or \$100,000 per customer over the two year program. As a market transformation organization, NEEA sees energy management as one program measure that has important implications for changing management attitudes and behavior toward energy. Sergio commented that he thought NEEA's approach was completely compatible with ANSI-MSE 2000. However, where as MSE 2000 takes a top-down approach, NEEA was taking a bottom-up approach. While the energy management standard tells you "what" is required to establish an energy management system, it does not tell you "how" to do it – which approach to take. While it is probably too costly for programs to fill this role, there still might be an opportunity to play a supporting role.

BC Hydro – Yes. Sergio mentioned that BC Hydro has an active energy management program. Ted concurred and noted that the program had been featured on a recent MDM Spotlight call. See presentation on BC Hydro's Sustainable Energy Management Program located on the MDM website - http://www.motorsmatter.org/events/FINAL_BC.pdf. See also BC Hydro's website, <http://www.bchydro.com/business/pspartner/pspartner51113.html>

Given the difference among the size and type of industrial companies represented across the CEE member service territories, the group agreed that identifying opportunities to support industrial energy management was a good role for CEE to support industrial efficiency programs. Lilianna said that OPA is very supportive of the energy management standards being developed by ANSI and ISO and is planning to incorporate them into OPA's program. CEE could help a useful role by helping to inform OPA and program administrators about these standards, including their implications to programs and how programs can leverage them.

Patrice Lundquist commented that energy management could be a vehicle, or catalyst, for programs to encourage customers to achieve deeper savings. CEE members could use incentives to assist industrial customers to transition from simple to more comprehensive forms of energy management. One important question is how to identify which industrial customers are good candidates for this type of investment in energy management infrastructure. Programs will need criteria. Patrice offered the idea of establishing different tier levels of information and support according to a customer's interest and willingness to commit to energy management and tying different levels of program incentives and support for each level (i.e, Energy Management. Level 1, Level 2, Level 3).

The idea was put forward that the subcommittee should work to develop a graduated program design that could provide the customer with the justification/motivation needed to jump to the next level of energy management commitment. Others put forward the idea of referencing

helpful energy management resources for program administrators, such as Evinta One-2-Five, the ENERGY STAR Rating System, ANSI-MSE 200 and supporting DOE materials in a CEE Model Program Approach to Energy Management.

Developing a Working Definition of Energy Management

Before going any further Ted asked the group to agree upon a working definition for energy management from a program perspective. Prior to the call, Ted had forwarded the following working definitions to the group (see box below).

- A systematic way of planning, organizing, implementing, monitoring and controlling energy use in an enterprise.
- Technology or program that reduces, limits or shifts peak load from on-peak to off-peak periods. (DTE Energy)
- Starts with management commitment to continuous improvement in energy performance...includes the setting of performance goals, creating and implementing action plans, assessing performance and progress, and recognizing achievements (ENERGY STAR)
- sets of actions that move accountability for energy outcomes to upper levels of the firm. Under corporate energy management (CEM) energy is no longer the sole responsibility of plant managers and engineers; in fact, CEM programs are designed to involve many areas of business activity, such as accounting, marketing, and others that were not traditionally concerned with energy. (DOE-ITP)
- a lasting program of continual improvement in organizational energy management. ...encompasses both the management and technical elements of energy management...enables organizations to take a systematic approach to the continual improvement of energy performance. (ANSI/MSE 2000)

Ted noted that the definitions above could encompass a broad variety of measures, including prescriptive measures for energy management systems², load management/demand response programs³, motor management programs, energy management diagnostic programs (like ENVINTA One-2-Five), monitoring tracking and reporting programs⁴ and cost-sharing the salaries of dedicated energy managers for industrial customers.

The group quickly agreed to focus on industrial customers, rather than addressing the energy management needs of commercial and institutional customers. This seemed appropriate since industrial energy consumption is dominated by processes rather than buildings (HVAC, lighting, etc.).

Sergio Dias commented that energy management can have many different components, such as software, hardware, training, management commitment, operations, maintenance, and

² See for example, National Grid's offering for Energy Management Systems and Economizer Controls under its Efficiency Initiative, http://www.nationalgridus.com/non_html/shared_energyeff_ei_ems_pif.pdf

³ For example see BC Hydro's program <http://business.everykilowattcounts.com/feature/DR/index.php>

⁴ For details, see BC Hydro's Sustainable Energy Management Program <http://www.bchydro.com/business/pspartner/pspartner51113.html>

measurement, reporting and verification. He offered a working definition that NEEA uses to address energy management. The Committee liked the definition and adopted it as the Committee's working definition. See below.

Energy Management as a Measure for Efficiency Programs

Program Goals:

- 1. Institutionalize energy management among industrial customers and build energy management infrastructure**
- 2. Increase participation in efficiency programs**
- 3. Increase frequency and scale of implemented efficiency projects**
- 4. Increase efficiency in program delivery by integrating program offerings into a common framework**

Proposed Areas for Program Support

1. Energy Management Assessments (screening)
2. Management Support (organizational structure)⁵
 - a. Corporate support for energy management goals/policy
 - b. Empowered energy manager
 - c. Empowered energy management teams
3. Education and Training
 - a. Employee education/awareness/buy-in
 - b. Technical training
 - c. Positive re-enforcement – recognition, performance review, compensation
4. Systems Improvement (capital purchases, installation, O&M)
5. Measurement and Reporting
 - a. Establishing metrics for measure energy intensity (energy per unit of production)
 - b. Reviewed during energy management assessment

Proposed Subcommittee Scope

The committee reviewed and revised the proposed scope of work forwarded to the subcommittee prior to the call. The revised scope of work is below.

1. Assess the relevance and value of energy management to CEE member efficiency programs.
2. Serve as a forum for members to share program approaches to energy management.
3. Identify supporting resources and activities in support of energy management and advise programs on how to utilize them. *For instance, investigate the opportunity to establish relatively uniform M&V protocols related to energy management*
4. Recommend a role for CEE.

⁵ One committee member noted that it is important to provide guidance to programs on who the target audience is for energy management within a particular plant or corporation. What is their job title, function, background or scope of responsibilities? How should programs identify them and engage them?

Objectives and Timeline

This topic will be addressed during the next subcommittee call.

Next Steps

1. Distribute working definition and notes to subcommittee
2. Investigate program approaches (e.g., BC Hydro, CA IOUs)
3. Collect and share 1-page summaries of energy management programs
 - a. OPA (attached)
 - b. Xcel Energy (Process Efficiency Program is currently offered in Minnesota; Xcel will be launching it in Colorado in 2009)
4. Identify information package, or presentation on Save Energy Now – including opportunities to coordinate with CEE member programs.
5. Schedule next call for August 20 at 2pm.
 - a. Review working definition and subcommittee scope
 - b. Invite two subcommittee members to describe how they support energy management and why, including program information, program evaluations, data and case studies describing the value (including energy savings) attributable to energy management programs. How does supporting energy management improve program effectiveness?

Adjourn.

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