



BPA Energy Efficiency:
BPA E3T Technical Advisory Group: Energy Management

July 28, 2011

Purpose

In 2008 the Bonneville Power Administration's (BPA) Office of Technology Innovation and Office of Energy Efficiency launched the Energy Efficiency Emerging Technology program (E3T) to increase the adoption of emerging energy-efficient electrical technologies in the Pacific Northwest. The goal for E3T is to establish an ongoing collaborative effort to "fill the pipeline" of new utility programs with innovative energy efficiency solutions and technologies that promise significant region-wide energy savings.

The process uses Technical Advisory Groups or TAGs to help scan, screen and select the most promising technologies for formal assessment by BPA for the benefit of its customers, publicly owned utilities throughout the northwest region. In the past two years, TAGs in the areas of lighting and HVAC have recommended measures for further consideration by BPA.

The Energy Management (EM) Technical Advisory Group will be an on-going board that will:

- > Help identify and screen new and emerging EM technologies
- > Recommend a select number of technologies each year for BPA to consider for assessment
- > Advise BPA on technology assessment protocols
- > Recommend EM technologies for deployment in the Northwest that have been adequately assessed by other organizations and can be recommended to the Regional Technical Forum (RTF) and utilities for adoption and promotion.

Note: research to identify existing assessments has the potential to save costs. Some technologies may require a short study to determine Northwest viability based on differences in climate or market.

What is Energy Management?

Energy management can mean a lot of things, so some time needs to be dedicated to defining what we mean by "energy management." Probably the easiest way to define it is to identify some examples of what it is and what it is not. We will be focusing on commercial and residential energy management strategies.

It will certainly include:

- Building automation controls and energy management systems
- Facilities and corporate energy management strategies
- Energy information-gathering equipment such as sub-meters and dataloggers, and software to enable gathering and analyzing energy information
- Programs to support and train for energy management strategies such as those supporting resource conservation managers and energy managers
- Retro- and continuous commissioning strategies

It may include things like:

- Advanced controls for rooftop units
- Streetlight control systems
- Energy Star® or ASHRAE Building EQ building rating systems

It probably will not include:

- Advancements in HVAC or lighting technologies – these will be addressed in other TAGs

The TAG will help refine details of what we will include in our definition of energy management.

Logistics

The EM TAG will be an on-going group composed of EM experts from across the Northwest, as well as selected experts from outside the region. The group will be comprised of six to fifteen members. The group will include experts from utilities, industry, and other key entities. TAG members' expertise may include EM applications, EM technologies, EM corporate strategies, controls, system design, manufacturing, and codes, as well as market acceptance and electric utility conservation program issues.

Participation in the EM TAG is on a voluntary basis. That is, BPA will not provide monetary compensation for participation. We may arrange one meeting during the first year to be in person in order for group members to meet each other and to facilitate in-depth discussion and team-building. Most meetings, however, will be web-enabled conference calls. We anticipate four meetings, starting in August, and ending before the end of 2011. Participants in the TAG will be expected to make a good-faith effort to participate in all meetings, and to contribute to documentation of new emerging technologies. Overall time commitment from members is expected to be 20 to 30 hours over a 5-month period.

The EM TAG will deliver final recommendations for 2012 technology assessments to BPA in December 2011.

Expected Benefits to the Northwest

These activities are expected to provide strategic guidance and detailed recommendations for BPA's investment in energy efficiency emerging technologies (ETs).

Expected Benefits to Participants

The BPA E3T EM TAG provides a unique opportunity to collaborate with expert colleagues in the field of energy management, to keep abreast of EM technology innovations, and to play a role in influencing the direction of energy management effectiveness in the Northwest.

Participants will be recognized on the BPA website, E3TConnect.org, and in the BPA Energy Efficiency *Customer News* newsletter. If you are selected to participate in the E3T EM TAG it is a reflection of the value and insight you bring to the E3T energy efficiency knowledge base as part of a group with a range of expertise and organizational representation. We appreciate your willingness to contribute to this important process.

Anticipated TAG Timeline (meetings & interim work) for 2011

Approx. timeline	Length, Hrs.	Purpose
Late August	4 - 6	<i>ID session</i> - Introductions to the program and to each other, and brainstorming ET* ideas
The next 3 weeks	10	Writing up information on selected ETs for the E3T database
Before October	3	<i>Ranking Review session</i> - Complete Ranking survey
Mid-October	4	<i>Scoring session</i> - Presentations on and scoring of 4-6 top-ranked ETs; initial drafting of recommendations
November or early December	3	<i>Recommendations Confirmation session</i> - Review and final comment on recommendations to BPA on the top 4-6 ETs
As needed	2-6	Suggestions for assessment protocols or other ad hoc calls for information or advice. We may also ask you for advice or information on selected technologies or strategies as the need arises.

*ET = Emerging technology: defined broadly includes emerging products, technologies, and strategies

For more information, contact Jack Zeiger at (360) 956-2017, zeigerj@energy.wsu.edu
or Alan Mountjoy-Venning (360) 956-2092, mountjoyvenninga@energy.wsu.edu