



*BPA Energy Efficiency:*  
BPA E3T Technical Advisory Group  
Residential Buildings Emerging Technologies (ResTAG)

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*April 2014*

**Purpose**

In 2008, the Bonneville Power Administration (BPA) Office of Technology Innovation and Office of Energy Efficiency launched the Energy Efficiency Emerging Technologies program (E3T). The goal of E3T is to establish an ongoing collaborative effort to “fill the pipeline” of utility conservation programs with innovative energy efficiency solutions and technologies that promise significant and reliable region-wide energy savings.

The process uses Technical Advisory Groups, or TAGs, to help scan, screen, and score the most promising products, technologies and strategies (called emerging technologies, or ETs), which are then formally assessed by BPA for their benefit to BPA customers – publicly-owned utilities throughout the Pacific Northwest region. Past TAGs have focused on data centers, lighting, HVAC, energy management, and commercial buildings.

The scope of the Residential Buildings TAG (ResTAG) is described here. The scope will be further refined at the initial meeting.

**Defining Residential Buildings – Scope**

The Residential TAG will look at technologies and strategies for electrical energy efficiency in single-family homes, manufactured housing, and some multifamily homes.

- Single-family is defined as having one to four units in a single structure
- Multifamily (residential) is defined as five units or more in a building up to three stories
- Manufactured housing is factory-built (manufactured and modular) housing

All technologies and strategies relevant to residential housing may be explored. We will exclude any technologies already in BPA utility programs and most technologies already in assessment by BPA. The list will be pared down to the highest-ranked ETs through a rating process using E3T BPA criteria.

Whole house strategies such as Passive House and Net Zero Homes will be discussed separately from individual technologies.

**Logistics**

The ResTAG is composed of 15 to 25 experts focused on various aspects of residential energy efficiency, such as building envelope, integrated design, lighting, HVAC, plug load, and economic analysis of building energy efficiency. ResTAG members are recruited from utilities, research organizations, building designers, contractors, and other key entities from the Northwest and across the country.

Participation in the ResTAG is voluntary; BPA will not provide monetary compensation for participation. Meetings will be web-enabled conference calls. The process includes two meetings and two presentation webinars with extended discussion. The commitment for ResTAG participants is April through June 2014. Participants in the TAG will be expected to make a good-faith effort to participate in all meetings, and to contribute to documenting emerging and under-utilized technologies. The overall

time commitment for members is expected to be 12 to 20 hours over the three-month period; those who develop presentations will likely spend some additional hours.

In June 2014, the ResTAG will deliver a final list of scored ETs to BPA.

### Expected Benefits

These activities are expected to provide strategic guidance for BPA’s investment in ETs for Northwest utility efficiency programs; in addition, the ResTAG’s efforts will benefit the planning and operation of programs of other organizations throughout the country.

### Expected Benefits to Participants

The BPA E3T ResTAG provides a unique opportunity to:

- Collaborate with expert colleagues in the field of high-performance residential buildings,
- Keep abreast of technology innovations, and
- Play a role in influencing the direction of residential building efficiency effectiveness in the Northwest and elsewhere.

Participants’ organizations will be recognized on the E3TNW website. If we have asked you to participate in the E3T ResTAG, it is a reflection of the value and insight you bring to the energy efficiency knowledge base, and your ability to work as part of a group with a range of expertise and organizational representation. We appreciate your willingness to contribute to this important process.

### Anticipated ResTAG Timeline for Meetings & Interim Work

Approx. Timeline	Hours	Purpose
<b>MEETING</b> April 10	3	<i>ID session</i> – Introductions to the program and to each other, and brainstorming ET ideas
April 25	1-5	<i>Ranking</i> – Complete Ranking survey. This is the due date to the WSU Energy Program.
April 26 to May 20	3-20	<i>Presentation Preparation (select individuals)</i>
<b>MEETING</b> May 21	1.5	<i>Presentation webinar #1</i>
May 23	1	<i>Scoring surveys due</i> from first presentation
<b>MEETING</b> June 4	1.5	<i>Presentation webinar #2</i>
June 6	1	<i>Scoring surveys due</i> from second presentation
<b>MEETING</b> June 12	3	<i>Scoring Confirmation session</i> – Review and provide final comment on scores
As needed	2-6	We may ask you for additional advice or information on assessment protocols, selected technologies or strategies as the need arises.

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