

Early Foresight: Bridging the Gap Between Implementation and Evaluation

Jennifer Eskil

Lauren Gage

October 17, 2012

Who is Bonneville?

- Federal Power Marketing Agency – Department of Energy (e.g., WAPA).
- Been around since 1937 – 75 years young!
- Service area covers Idaho, Oregon, Washington and Western Montana; also portions of California, Nevada, Utah and Wyoming.
- Markets and transmits power generated from the Federal Columbia River Power System¹ (FCRPS).
- Generates ~ 8,000 aMW of energy annually.
- Self-financed ~ \$3.5 billion/yr, pays US Treasury \$1B/yr.

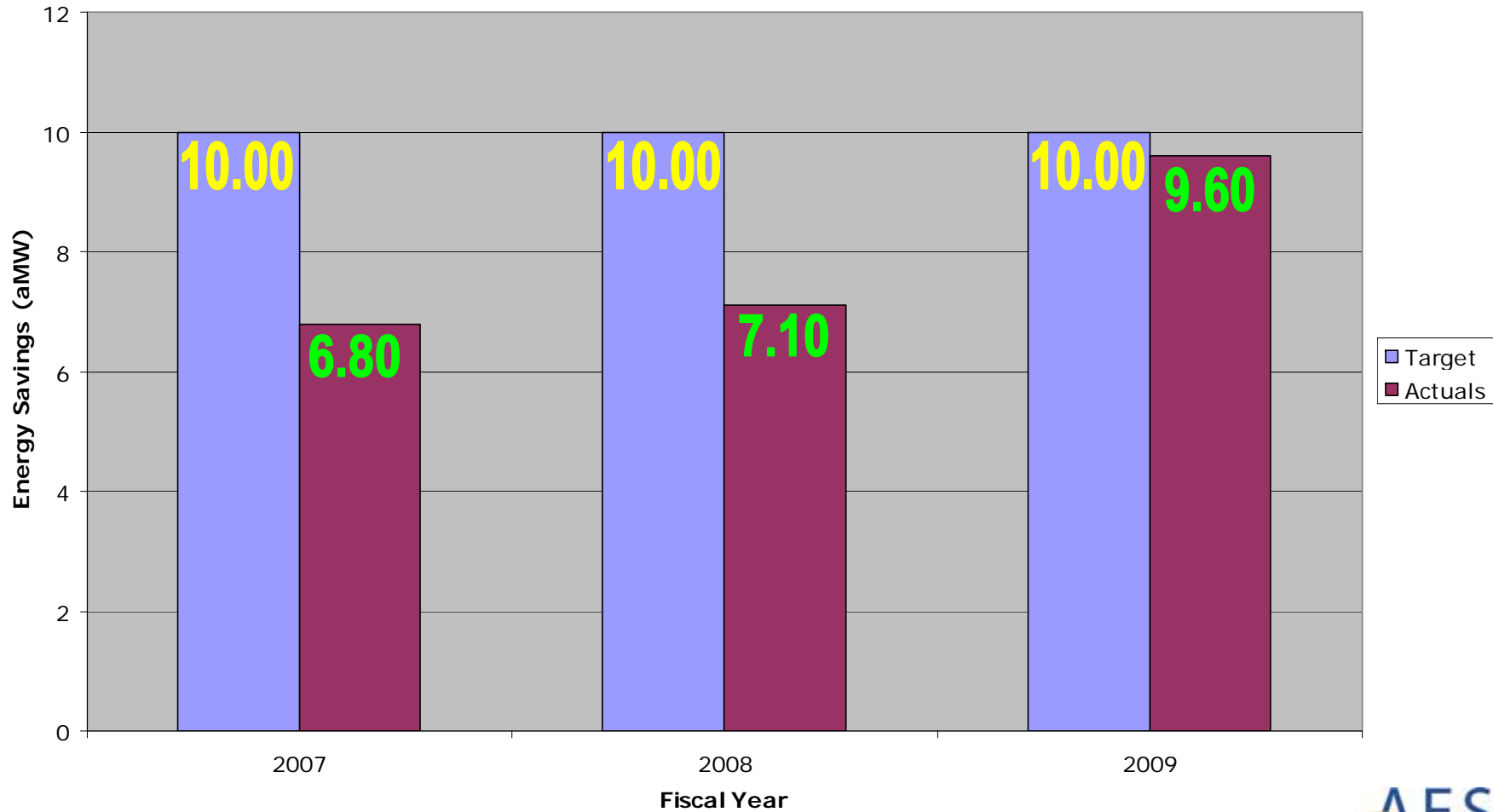
¹FCRPS includes 31 Federal hydro project dams, 1 non-federal nuclear plant and several small non-federal power plants (and wind generation); all are carbon-free!

Industrial Program Redesign

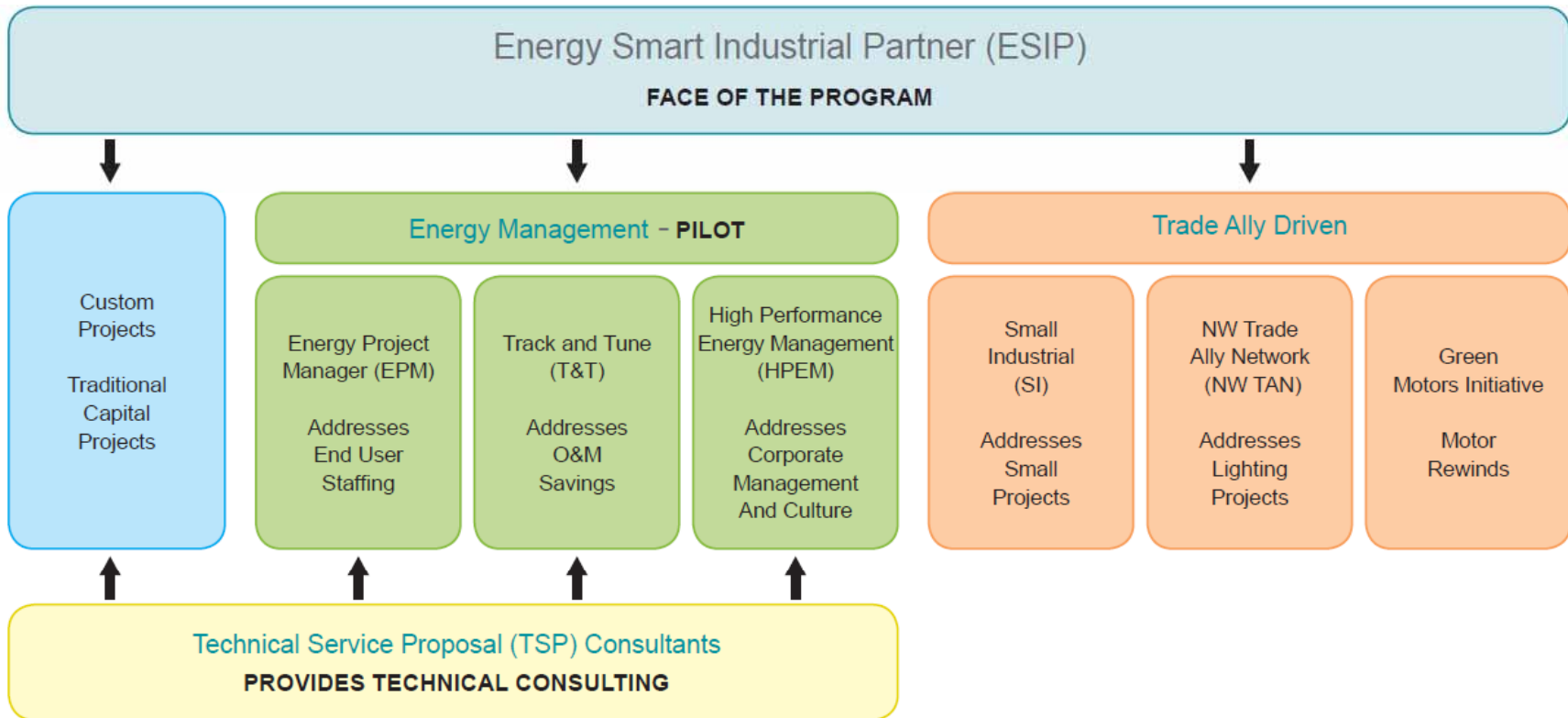
- Internal program review – January to September 2008
 - Received advice and counsel from Evaluation Experts
- Hired program partner – June 2009
 - Program collaboratively designed June-September 2009
- Early Evaluation: Coordinated program design and evaluation planning
 - Ensured program design and data collection would support future evaluations
- Following implementation...
 - Completed process evaluation of 2010-2011 program
 - (Nearly) completed impact evaluation of Energy Management Pilot

Historical Accomplishments

Industrial Target vs. Actual Energy Savings



New Industrial Program

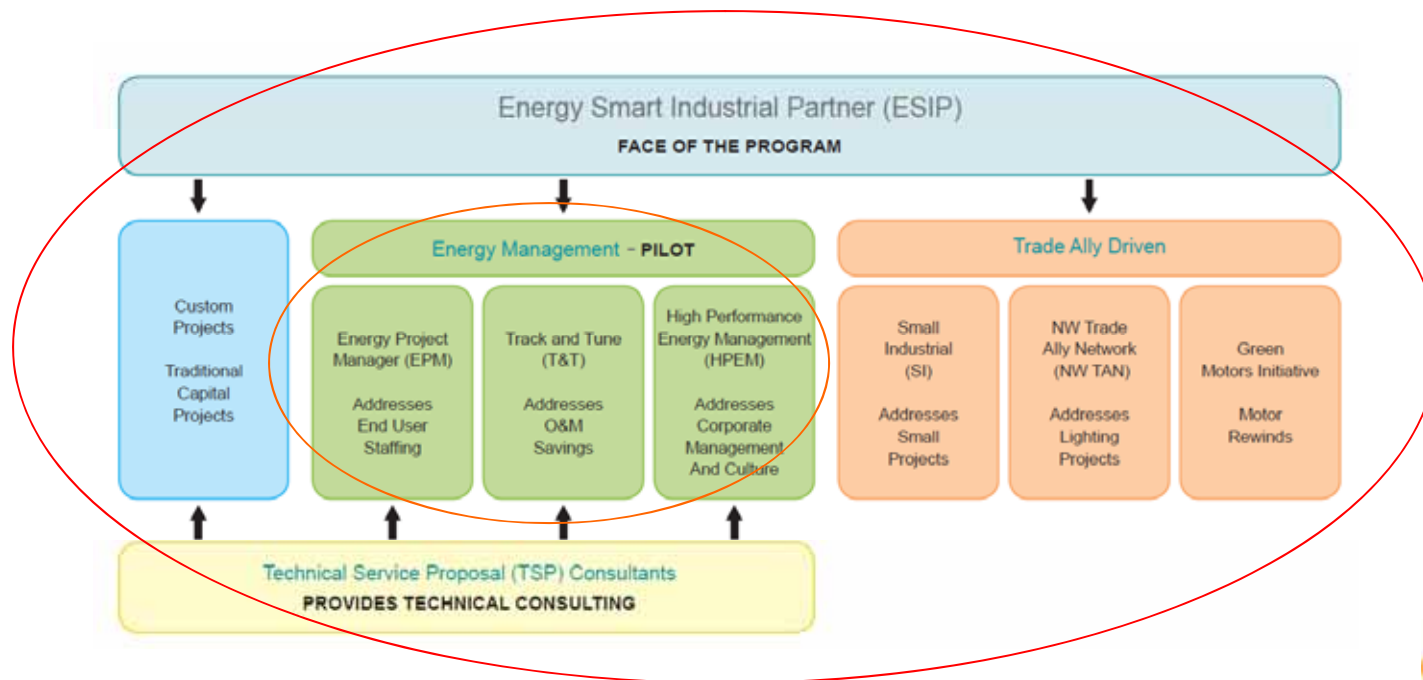


Questions to Consider

- Do program components accomplish intended purpose?
- How to track and analyze program data?
- How will you measure the annual savings for a NEW program component: Industrial Energy Management?

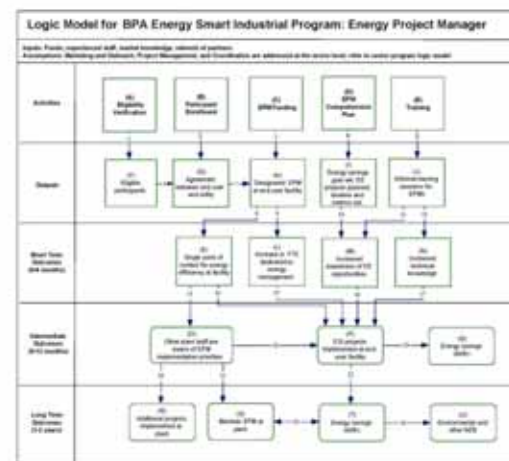
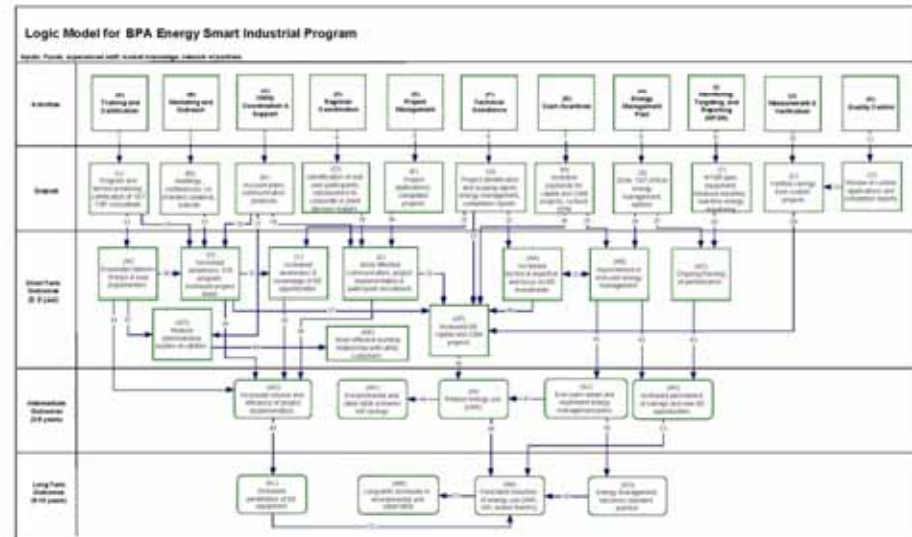
ESI Program Accomplishes Intended Purpose – How?

- You want us to do what?
 - Logic models integrated into overall program planning
 - Developed one for overall program, and one for each Energy Management Pilot Component: Energy Project Manager, Track and Tune Projects, and High Performance Energy Management



Logic Models Prove Invaluable

- Logic models required forethought of what the program would implement and how to track the data.
 - Staff had to consider all the details; from the most obvious, down to individual measures
 - Changes were made to program design based on their development

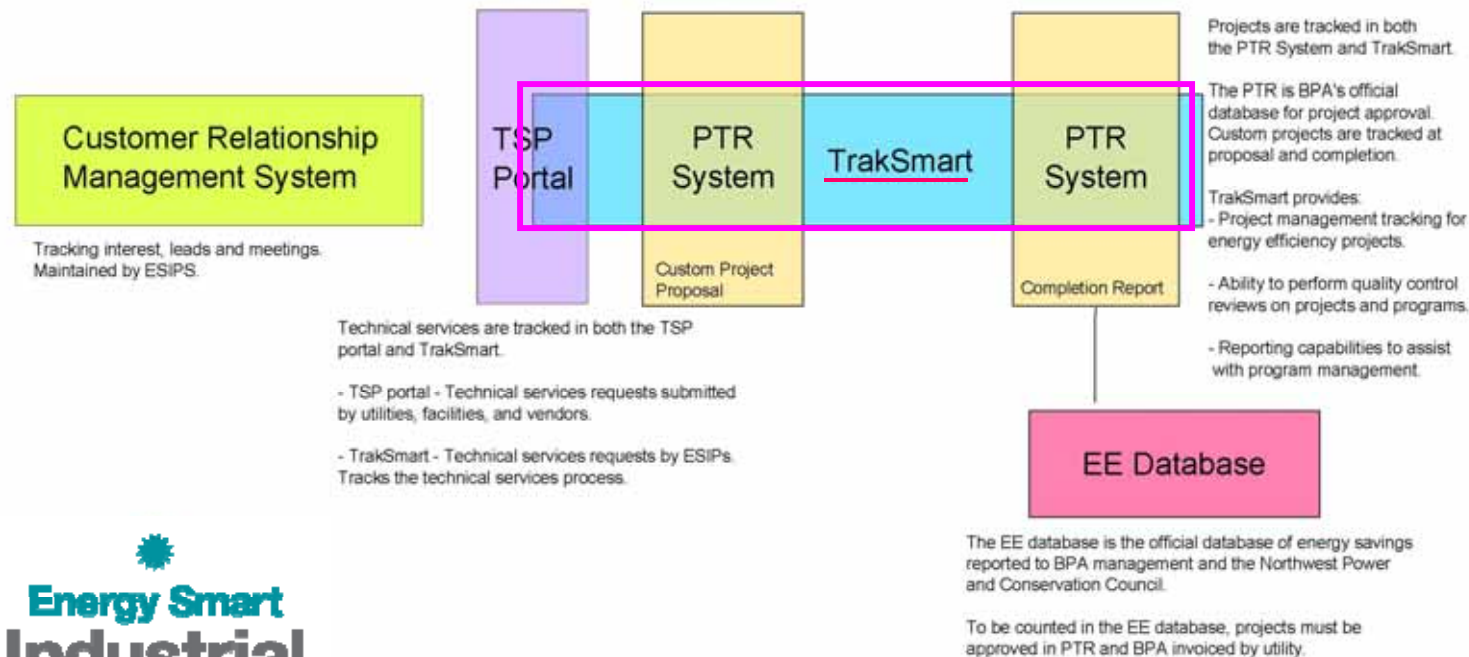


Logic Models: Early Evaluation

- Hired Evaluator “A” to work with implementation staff to develop logic models
 - Used to develop program theories and stakeholder surveys
 - Outlined increase by industries to see energy efficiency focus as critical
 - Framed what kinds of data would need to be captured
- Premise: leverage program portfolio to move industrial energy efficiency approach.
- Evaluator “B” used logic models to test actual program implementation.

Collecting Necessary Data

- Evaluator “B” reviewed the program tracking system to understand what data would be available
- What worked: ESI TrakSmart was in place



Necessary Data...cont'd

- What didn't work: Mild tension between Evaluator "B" and implementation staff
 - Evaluator "B" wanted *every piece* of data; "more is better" rather than *prioritized* request
- What we learned:
 - False illusion – there is NO *perfect* data set
 - Data tells you what happened; not what *could have* happened
 - To minimize tension – recommend using one firm (for "pre" / "post" evaluation efforts)

Energy Management: Plan to Measure Savings

- Two NEW (behavior-based) program components:
 - Track and Tune: which is about savings from no-cost/low-cost operations and maintenance (O&M) measures
 - High Performance Energy Management: targets corporate-level “buy in” and establish sustainable practices for kWh savings
- BPA has long history of robust measurement and verification (M&V)
- BPA Planning/Evaluation staff asked “How can we measure energy savings from behavior-based components?”
 - Design team developed “Decision Tree” guide on how M&V will be performed within the pilot

Implementation and Evaluation Bridged the Gap – How?

- Early coordination proved vital between program designers/implementers and evaluation staff.
- Early review of program led to the development of:
 - Energy Management “Decision Tree”
 - MT&R² Guidebook version 3.0
- Early evaluation integration led to successful (draft) process and impact evaluations:
 - Process evaluation provides third-party feedback

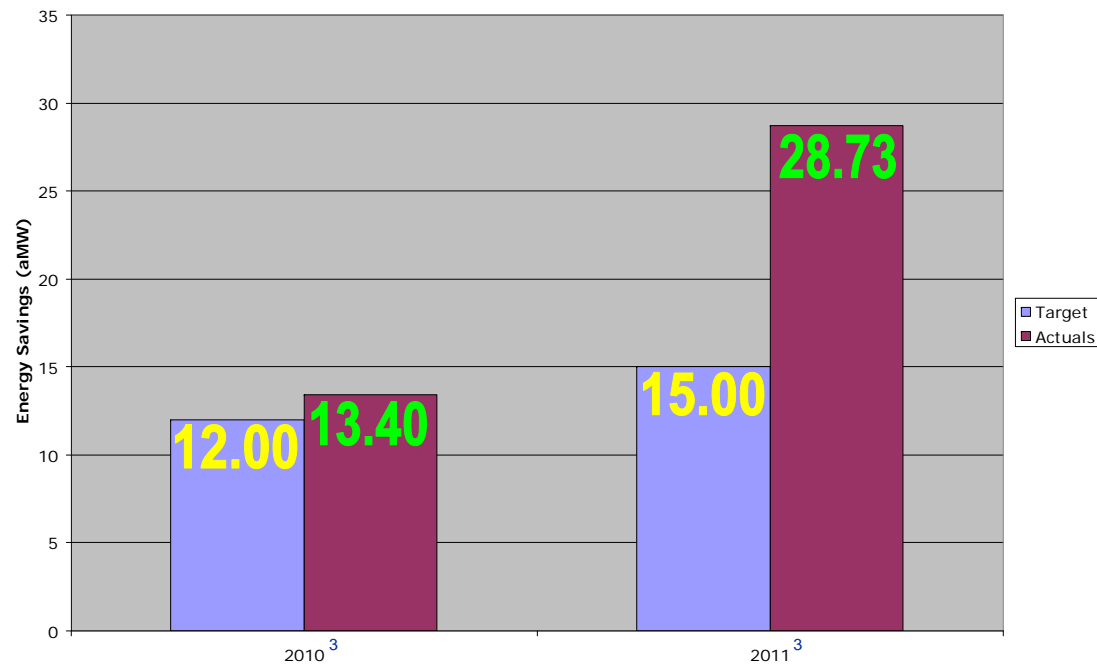
²MT&R stands for monitoring, targeting and reporting.

Bridging the Gap, cont'd

- Process evaluation shows program is well designed and follows the developed logic models
 - “ESI program follows the logic.”
- **Impact evaluation was relatively easy because the data, documentation and methodology were provided by program**
- BPA implementation staff value initial findings from evaluations
 - Program drove high levels of participation
 - Energy Management pilot was very successful at both delivering savings and increasing end user energy focus
 - The program is organized around sound strategic planning.
 - The program is effective at developing the market for increased program participation.

Status of ESI Program

- Currently 104 utilities participating.
- Encompasses 5 different states.
- Over 600 industries have been visited.



³Actual energy savings achieved in fiscal years 2010 and 2011

Questions?

- Jennifer Eskil, Industrial Sector Lead
and Energy Smart Industrial Program Manager
(509) 527-6230
jleskil@bpa.gov
- Lauren Gage, Evaluation and Market Research Lead
(503) 319-7195
lsmgage@bpa.gov



Save the Dates

Jan. 28-31, 2013

AESP's 23rd National
Conference & Expo
Orlando, FL

Apr. 29-May 1, 2013

AESP's Spring Conference
Dallas, TX

For more information - www.aesp.org

