

# AGENDA

## USB FACE-TO-FACE

August 12, 2009

8:30 a.m. to 3:00 p.m.

Room 770, Bridge 503-230-3344 code 9339

Facilitator: Lloyd Meyer

EER: Tom Hannon

Attendees for Specific Topics: Sarah Moore, Mark Ralston, Rasa Keanini, Lauren Gage, Brent Barclay, Lisa Perigo, Jennifer Eskil, Becky Clark, Jack Callahan

TIME	TOPICS	PURPOSE	SPEAKER
8:30-8:40	<b>Opening</b>	Update/ Discussion	Lloyd
8:40-9:00	<b>Residential Updates</b> <i>See attached handout</i>	Briefing/ Discussion	Sarah Moore
9:00-9:30	<b>Economic Stimulus</b> <ul style="list-style-type: none"><li>Tracking energy savings from stimulus projects in the region</li><li>Roundtable on utility involvement in local stimulus projects</li></ul>	Discussion	Mark Ralston
9:30-10:00	<b>PTR Re-Design</b>	Discussion	Rasa Keanini/ Lauren Gage
10:00-10:20	<b>Low-Income Lighting Opportunities</b>	Discussion/ Feedback	Brent Barclay/ Lisa Perigo
10:20-10:50	<b>Energy Smart Industrial Program Update</b> <i>See attached handouts</i>	Discussion	Jennifer Eskil/ Brent Barclay
10:50-11:05	<b>USB Member Transition</b>	Discussion	Lloyd Meyer
11:05-11:30	<b>E Source is Available</b> <ul style="list-style-type: none"><li>How can we get utility staff to try E Source?</li><li>Offer an award?</li></ul> <i>See attached handout</i>	Discussion/ Feedback	Becky Clark

11:00-12:00	<p style="text-align: center;"><b>March 2010</b></p> <ul style="list-style-type: none"> <li>• What is a good theme?</li> <li>• What should it be called? Summit, Workshop, Conference....?</li> <li>• Potential Speakers to contact (in addition to Cathy Zoi, Thomas Freidman, Ron Johnson-Rodriguez)?</li> </ul>	Discussion/ Feedback	Becky Clark
<i>See attached handout</i>			
<b>12:00-1:00</b>	<b>LUNCH</b>		<b>ALL</b>
1:00-1:30	<b>Update on Emerging Technology</b>	Discussion/ Update/Feedback	Jack Callahan
1:30-3:00	<p style="text-align: center;"><b>USB Roundtable</b></p> <ul style="list-style-type: none"> <li>• LED Street Light</li> <li>• Low Income WX</li> <li>• Industrial Program</li> <li>• 6<sup>th</sup> Power Plan</li> <li>• Are rebates to commercial customers considered by the IRS to be taxable income to the customer?</li> </ul>	Discussion/ Feedback	ALL

**From:** BPA Mailings

**Sent:** Thursday, July 30, 2009 1:50 PM

**Subject:** BPA residential update: Expanded ductless heat pump support

### **Support for Ductless Heat Pumps**

BPA Energy Efficiency will continue its support for ductless heat pumps in residential applications effective Oct. 1, 2009 for fiscal year 2010. BPA is the primary sponsor of the NEEA Ductless Heat Pump Single Family Evaluation pilot program, and is actively involved in collecting pilot data. The pilot is on track to deliver 1,500 ductless heat pumps installations from BPA utilities by Sept. 30, 2009.

In addition to providing \$1500 incentives to utilities for ductless heat pumps in single-family homes with zonal electric heat, BPA will expand its support to include incentives for manufactured homes (\$1500) and multifamily homes (\$1000) with zonal electric heat. Read more about BPA and ductless heat pumps at <http://www.bpa.gov/Energy/N/DHP.cfm> and other residential sector news at <http://www.bpa.gov/Energy/N/residential.cfm>.

The Oct. 1, 2009 Implementation Manual will include a six-month notice that BPA will discontinue reimbursement for ductless heat pumps in single-family homes with electric forced-air furnaces effective Mar. 31, 2010. BPA is working with the Northwest Energy Efficiency Alliance (NEEA) to identify potential savings from ductless heat pumps in single-family residences, manufactured homes and multi-family applications with electric forced-air furnaces.

### **Performance Tested Comfort System**

Heating and cooling represent up to 50% of residential energy use in the Northwest, and utility participation in the BPA Performance Tested Comfort System (PTCS) program helps assure optimal HVAC performance. At a recent Energy Smart Awareness brown bag event, BPA Energy Efficiency clarified the roles and responsibilities for claiming PTCS measures. This clarification can be reviewed at <http://www.bpa.gov/Energy/N/projects/ptcs/>.

BPA will conduct an Energy Smart Awareness on Sept. 2 to introduce the new PTCS Web site and registry. Look for more details from your Energy Efficiency Representative in the next few weeks.

### **Change a Light Northwest**

BPA Energy Efficiency will extend the Change a Light Northwest promotion to provide program consistency until more information about the Sixth Power Plan is available. To learn more about Change a Light Northwest, visit <http://www.changealightnw.com/>

	<b>Program Offer - Three Components</b>		
	<b>1. EPM Funding</b>	<b>2. Track &amp; Tune Projects</b>	<b>3. High Performance EM</b>
<b>Goal</b>	Increase end-user management /engineering expertise devoted to electrical energy efficiency.	Improve plant energy performance through O&M improvements that offer an attractive business opportunity to the end user and documentable, low-cost savings to the program	Increase adoption of core EM principles to drive more capital and O&M projects resulting in increased persistence of savings and an long-term commitment to energy efficiency improvement.
<b>Versions offered</b>	<ol style="list-style-type: none"> <li>1. EPM = primarily project manager or project engineer</li> <li>2. EPM+ = Co-enrollee in "High Performance EM" who has or is developing energy management skills in addition to their project engineering or project management skills.</li> </ol>	<ol style="list-style-type: none"> <li>1. Select from: whole plant, subsystem, or process.</li> <li>2. Action plan can be put together by: TSP, end-user staff, or third party that the end-user contracts with.</li> </ol>	<ol style="list-style-type: none"> <li>1. Structured Network Approach</li> <li>2. One on One coaching</li> <li>3. Tap into other regional efforts as appropriate (NEEA)</li> <li>4. Quarterly regional forums open to others outside the structured network group</li> </ol>
<b>Funding / Incentives</b>	<ol style="list-style-type: none"> <li>1. Co-funding of position.</li> <li>2. For end-user enrollees BPA EPM funding offer will continue (for the term of the program) provided that the end user continues to set and achieve each of their annual savings targets.</li> <li>3. EPM funding may change each year, depending on the new target set for each year.</li> </ol>	<p>Four potential forms of incentives:</p> <ol style="list-style-type: none"> <li>1. Funding to Implement <u>Tracking System</u>. (examples: kWh submetering, monitoring of plant variables relevant to KPI, online tracking software)</li> <li>2. Funding of <u>Technical Services</u>. (examples: Facility Tune-up aka Kaizen Blitz, compressed air leak survey, other sources (ex: out of region vacuum pump expert)</li> </ol>	<p>Two forms of incentives:</p> <ol style="list-style-type: none"> <li>1. Cost of EM consulting is covered</li> <li>2. Plant level performance incentives (\$0.02/kWh per year). Look at meter-level performance after subtracting effect of M&amp;V'ed capital projects, and tracked and claimed O&amp;M projects. Need a well understood baseline and savings that "rises above the noise"</li> </ol>

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<b>Funding / Incentives <i>cont'd</i></b>	<p>4. Funding \$ per site = \$0.015 per kWh of targeted savings to be achieved in the first year. Raised to \$0.025 per kWh for subsequent years for "proven performers". Minimum EPM funding per year is \$25,000 per site and maximum is \$250,000. Small sites must take on at least the minimum goal to be eligible.</p> <p>5. EPM Funding is provided upfront, but in installment payments to protect BPA's interests (must meet milestones toward annual savings target).</p>	<p>3. <u>Action Item Funding</u> of low cost measures identified in the course of facility tune-up (materials, contract services, potentially inhouse labor). Recommending 50% to 80% of measure cost, but capping at a low cents/kWh given the short measure life.</p> <p>4. <u>Sustained savings bonus payment</u>. Pay a modest incentive for actual measured savings for year 2 up through year 5 (\$0.02 per kWh)</p>	
<b>Initial Requirements / Selection Criteria</b>	<p>1. Acceptance of funding formula. ESIP, Utility, and Field Inspector screen goals for reasonableness.</p> <p>2. Initially first-come first-serve with an annual budget cap. This selection criteria could change over time.</p>	<p>1. O&amp;M Funding agreement (a type of CPP). Sign letter of intent that outlines obligations. This is a mainstream offering.</p>	<p>1. General screening for interest / seriousness. Sign letter of commitment that sets targets.</p> <p>2. For on-going interactions, minimum size might be ~\$1,000,000 per year in baseline electrical consumption.</p>

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<b>Requirements to Retain Funding</b>	<p>1. Milestone #1: CP submitted and approved for "targeted kWh" (target set by end-user in original funding agreement) within 6 months of funding start date.</p> <p>2. Milestone #2: CP installed and M&amp;V completed for "targeted kWh" within 12 months.</p> <p>3. If milestones are missed, EPM funding is suspended for as much as 6 months. Funding resumes once they are back on track. If missed milestone is not met within an additional 6 month period, EPM Funding is ended.</p> <p>4. Timelines could be modified for very large projects with inherently longer timelines.</p> <p>5. Strongly suggest a "roll-over clause" where under the scenario where a customer exceeds first year savings targets, they can carry over the "net-excess savings" so that it counts toward the next year's savings. This avoids sending a perverse market signal to slow any project.</p>	<p>1. Sustained savings bonus payments are contingent upon the the plant/system/process continuing to perform over a multi-year horizon. Our goal is not just to dial in these systems, but to keep them dialed in or better yet to continuously improve performance. Each year's continued performance will act as a 1 year measure life custom project.</p>	<p>Milestone #1 - Steady Progress toward establishing an EM plan</p> <p>Milestone #2 - Progress toward achieving savings (could be CP, O&amp;M Track &amp; Tune, or MTR established savings)</p>
<b>How tied to Savings?</b>	<p>The tying of continued EPM funding to savings targets provides clear motivation to end-user (and protection of BPA)</p>	<p>Directly produces and documents savings</p>	<p>Provides framework for direct acquisition of savings on meter level (MTR). Catalyst for more capital or O&amp;M Track &amp; Tune projects</p>

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<b>Cross Influences</b>	<ol style="list-style-type: none"> <li>1. Drives Capital Projects.</li> <li>2. Drives Track &amp; Tune Projects</li> <li>3. New idea: Allow High Performance EM enrollees to "count" MTR-based savings toward <u>part</u> of their annual savings target (contingent upon their site being well-characterized with MTR methodology)</li> </ol>	<ol style="list-style-type: none"> <li>1. O&amp;M efforts usually also yield capital projects</li> <li>2. Benefits from EPM to drive process</li> <li>3. Provides excellent area of focus for EM training</li> </ol>	<ol style="list-style-type: none"> <li>1. Drives Capital Projects.</li> <li>2. Drives Track &amp; Tune Projects</li> <li>3. Provides valuable skill-building support to EPMs.</li> <li>4. Promotes senior management buy-in</li> </ol>
<b>Comments</b>	The EPM is always a one person (or two at very large sites which set big goals). It is not an unspecified pool of labor. EPM can be an existing employee, a new employee, or a contractor to the site. The EPM can already be an energy manager or energy project manager.	Projects could be based upon in-house ideas, come from a TSP-provided tune-up or from an outside expert.	Replicate Structured Network Approach used in ETO?
<b>Potential Challenges/Risks:</b>	<ol style="list-style-type: none"> <li>1. Need adequate ESIP support for collaboration &amp; planning.</li> <li>2. EPM needs to be empowered to act within the end-users organization</li> <li>3. EPM will be operating with a partial set of tools w/o EM training</li> <li>4. Potential distraction of non-electrical energy projects, and non-energy projects.</li> <li>5. BPA, utility, or competitor perception that EPM funding is going towards non-relevant activities, or is funding activities that would have happened anyway.</li> </ol>	<ol style="list-style-type: none"> <li>1. Number and skill level of qualified tune-up engineers</li> <li>2. Assigning appropriate measure life</li> <li>3. Cost of Measurement systems where many loads are affected, but it is still a small fraction of total plant load</li> <li>4. Developing appropriate strategies to promote sustained attention to the system in question.</li> </ol>	<ol style="list-style-type: none"> <li>1. Getting and keeping management attention (both on the senior level and RCM level)</li> <li>2. MTR techniques may have difficulty in accurately characterizing baseline energy and thus savings. Potential challenges within BPA about MTR-claimed savings and associated incentives.</li> <li>3. Structured network approach may be difficult to schedule (distances, need for staggered start, avoidance of direct competitors)</li> <li>4. Avoid duplication with NEEA EM offering</li> </ol>

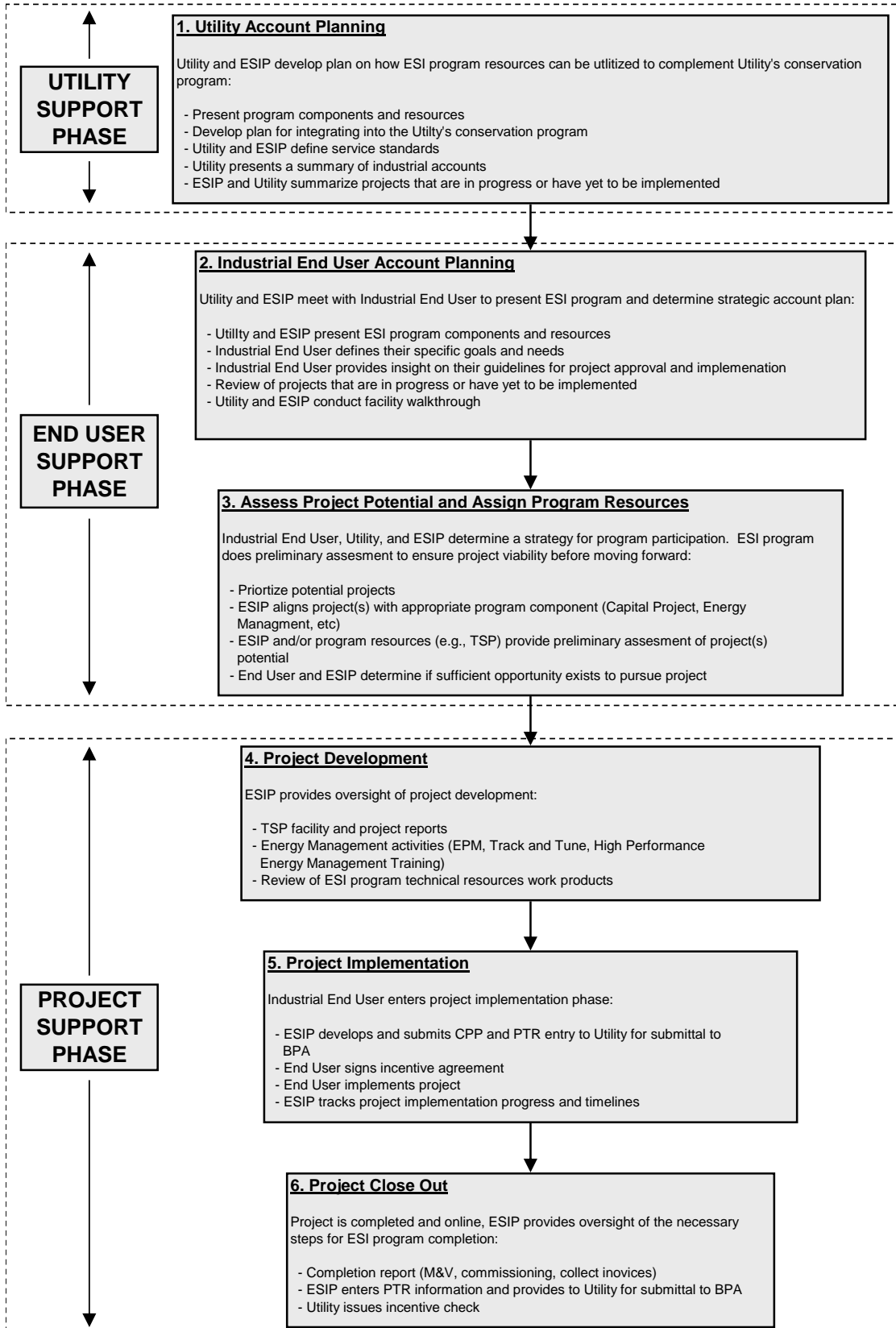
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<b>Potential Challenges/Risks:</b> <i>cont'd</i>	<p>6. For situations where companies are going outside their employee ranks, they may have trouble identifying off-the-shelf EM talent.</p> <p>7. The act of suspending or ending EPM funding for sites that do not meet milestones could be touchy.</p>		
<b>Scale of Effort</b>	Ideally large, but may want to start smaller to figure out the bugs. Budget for 10 to start.	Large. Assuming qualified tune-up engineers can scale up (20 per year yielding 2 aMW)	Potentially, 1 SNG per year plus ten 1 on 1 end-users. Potentially treated as a pilot offering.
<b>Budget required to support</b>	Dan to conduct. Assume 10% program overhead beyond EPM funding levels. Key unknown factor is the kWh targets selected by each site.		
<b>Key issues to decide</b>	<p>1. Will the program allow MTR-based savings to count toward savings target? We would recommend that it be allowed, but only if enrolled in "High Performance EM" and only then as a modest percentage of the overall goal.</p> <p>2. Could utilities add funding on top of this offering? Are utilities interested in that?</p> <p>3. Can we somehow encourage an educational curriculum outside of the program (NEEA, local universities) that provides a foundation in EM that could be a potential pool from which EPM could be hired?</p> <p>5. The EPM can be a regional manager, and cover multiple sites within BPA that cross-over utility boundaries. How would this more complex situation be handled?</p>	<p>1. Incentive Structure</p> <p>2. Continuous monitoring of project?</p> <p>3. Specifics of methodology for entering Track and Tune projects as custom projects.</p>	<p>1. Can we (or do we want to) bump up the project offer for participants that participate in O&amp;M?</p> <p>2. Location, mix to make-up SNG.</p> <p>3. Push for MTR-based savings</p> <p>4. Whole plant incentives?</p>

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<b>Key issues to decide cont'd</b>	6. Strongly suggest a "roll-over clause" where under the scenario where a customer exceeds first year savings targets, they can carry over the "net-excess savings" so that it counts toward the next year's savings. This avoids sending a perverse market signal to slow any project.		5. Define what is a stable baseline: no major expansions, contractions, major shifting in types of work performed, fuel switching, etc.
<b>Peer Programs</b>	1. Several utilities (BC Hydro, SCE, Focus on Energy) assist with Energy Management Funding. None of these (to our knowledge) is as directly tied to savings goals.	1. Energy Trust of Oregon 2. Commercial RetroComm Programs (Rocky Mtn. Power, NEEA, California) 3. Compressed Air (Tacoma, Manitoba, Energy Trust)	1. Energy Trust of Oregon
<b>PTR Entry Methods</b>	None.		
<b>Who within ESI Leads this Effort?</b>	ESIP with input from SEG as EM specialist	ESIP with major role played by assigned TSP.	EM Coach (SEG) with frequent account planning coordination with ESIP
<b>Next Steps</b>	1. Vet idea with BPA, utilities, and maybe some customers for preliminary feedback.  2. Tweak funding levels after further consideration and input. 3. Pending approval of concept, start drafting up documents and agreements. 4. Since this money will flow through the utilities, incorporate appropriate changes to IM.		

**Big Picture Issues:**

1. Can we afford to provide all of these forms of support, plus TSP, plus PDC, plus conventional incentives?
2. Do we encourage a given end-user to participate across the board?
3. Do we bundle these three elements as a single offering to Utilities or let them choose ala cart?
4. Do the PDCs sell these concepts or specialists within each of the three disciplines?

**Project Process Flow with an ESIP**



**Custom Project Roles and Responsibilities for Utilities with and without an ESIP**

Phase	Past Industrial Program Process	New ESIP Program Process	
		Utility with an ESIP	Utility without an ESIP
1. Utility Account Planning	EER provides account planning assistance with Utility with the BPA Engineer providing technical support	ESIP provides account planning and technical assistance to Utility	BPA does not provide Utility account planning or technical assistance
2. Industrial End User Account Planning	BPA Engineer presents technical components of industrial program and does facility walkthroughs	ESIP is a resource to assist Utility with representing ESI program components to End User and does facility walkthroughs	Utility represents ESI program components to End User and does facility walkthroughs
3. Prioritize Projects and Align Program Resources	BPA Engineer prioritizes potential project and identifies technical resources required	ESIP identifies and prioritizes potential projects and outlines next steps	Utility identifies and prioritizes potential projects and completes TSP portal entry to apply for BPA funding of a TSP Project Report
4. Project Development	BPA Engineer provides oversight of industrial program technical resources and project development	ESIP provides oversight of ESI program technical resources and project development	BPA provides oversight of ESI program technical resources and project development (when BPA is the funding agent)
5. Project Implementation	TSP and BPA engineer develop CPP and assist the utility in submitting CPP for approval	TSP and ESIP develop and submit CPP to Utility for approval and forwarding approval	Utility develops and submit CPP to BPA for approval
6. Project Close Out	BPA Engineer or End User do M&V, Utility invoices BPA for incentive and issues incentive to End User	TSP or ESIP do M&V, Utility invoices BPA for incentive and issues incentive to End User	TSP or Utility do M&V, Utility invoices BPA for incentive and issues incentive to End User

E Source is a RESOURCE!

BPA is sponsoring a one-year membership to E Source for our public utility and federal (Northwest facilities) customers. This sponsored membership means the staff at those utilities has access to the E Source Technology Assessment Service (TAS) and the Efficiency and Demand Response Program Service (EDRPS). Once registered, they will have immediate access to research reports, Web conferences and other resources, including personal consulting assistance.

What do USB members suggest to promote utility staff members trying E Source? Should we get quotations from users for the newsletter--why they contacted E Source? Or, give a reward for those who e-mail their EER an evaluation of the E Source experience? Or, some other action? WE want the favorable and the criticism evaluations.

### Keynote Speakers next March

Sonya Baskerville in the BPA Washington DC office is in the process of contacting Cathy Zoi to be a speaker next March. She was confirmed recently as the DOE's Assistant Secretary for Energy Efficiency and Renewable Energy (EERE). Zoi

- is the founding chief executive officer of the Alliance for Climate Protection
- served as the Chief of Staff in the White House Office on Environmental Policy in the Clinton-Gore administration
- served as a manager at the U.S. Environmental Protection Agency (EPA), where she pioneered the Energy Star Program
- worked for several energy-focused organizations, as the Bayard Group, recently renamed Landis+Gyr Holdings, the New South Wales EPA in Sydney, Australia, and New South Wales Sustainable Energy Development Authority (SEDA)

I've asked but suspect that Thomas Friedman will be too costly. Also, will check out Ron Johnston-Rodriguez Port of Chelan County <http://www.discovery.org/scripts/viewDB/filesDB-download.php?command=download&id=2891> who is knowledgeable about the Plug-in Center PHEV Pilot .

Who else do USB members recommend?