

1. Is your organization planning to **ramp up energy efficiency acquisition**? If so, how much and over what time period? Do you have a conservation potential study and/or energy efficiency implementation plan? Is the study/plan based on assumptions similar to those being used in the development of the 6<sup>th</sup> power plan?

- Yes. The District's current targets for 2010-2011 are based on our Integrated Resource Plan, and the associated potential analysis completed in 2008. Efficiency targets increase from the current level of 7aMW to 7.5 aMW over the next two years. The District is gearing up to refresh our potential analysis for our next IRP (to be completed in late 2010) and to incorporate information (e.g., new measures) from the 6<sup>th</sup> Power Plan. The achievable conservation potential identified in the 6<sup>th</sup> Power Plan represents over a 30% increase over the achievable potential in our last IRP. Efforts are underway to capture savings from new measures in the 6<sup>th</sup> Power Plan before they are incorporated in our potential analysis. Those include active participation in the consumer electronic initiative coordinated by NEEA, our own efforts to support customers in efforts to capture savings from energy efficient data centers, and support of adoption and enforcement of new energy codes in the State of Washington. These efforts give the District a jump start to meet significantly increased targets in 2012 and beyond.

2. Are there specific **existing program areas** that are the focus of your efforts? If so, why do those programs come to the forefront? - Major energy saving opportunities in Lighting and HVAC. Lighting the most immediate as there is faster turnover for bulbs than for HVAC equipment.

#### Residential

- CF Lighting transition to standards, and uncertainty over LED development
- Heat Pump Technology: Can we get "rid" of electric resistance space heating?
- Can we apply heat pump technology to water heating?

#### Commercial

- Lighting: How quickly will LED technology advance?
- How do we get more savings from non-lighting measures? Particular opportunities in HVAC control and operations

#### Industrial

- Lighting
- Compressed air
- Motors

3. What three or four **newer technologies** do you see having the best potential to be a significant contributor to your efforts to significantly ramp up energy efficiency achievement? Do you have or are you developing new programs for these technologies?

- Ductless Heat Pumps – the District is actively participating in the pilot coordinated by NEEA. We see significant potential for this technology under the umbrella of our current Residential Weatherization and Efficient Heating Equipment loan/rebate program. It provides a space heating efficiency option for the nearly 30% of customers with wall or baseboard electric resistance heat.
- Various consumer electronics (high efficiency TVs, set top boxes, computers) – manufacturers must develop units that meet more stringent efficiency standards and make them available in our service area in order to achieve the savings projected.
- LED in certain applications – predominantly commercial
- Data center efficiency – this is a rapidly growing load with significant efficiency potential.

- O&M savings in both commercial and industrial facilities – the District is about to launch an RCM pilot program, See the need to coordinate efforts to identify savings potential related to O&M, verify savings achieved through O&M and ensure persistence, track and report savings.

4. Are there **emerging technologies**, new initiatives or research activities that you are independently pursuing? What **market and program research** are you pursuing?

- Heat Pump Water Heaters – including work with EPRI to promote product demonstrations
- LED Street Lighting – support for local-government driven, stimulus-funded projects
- Data Center Efficiency – comprehensive m&v support for custom rebate projects
- Renewables: Solar – pilot program initiative
- Commercial Retrofit Evaluation – 2009-10
- PUD’s “10% Challenge” – Piloting an effort to encourage customers to commit to a quantitative energy savings goal, assessing tools to assist customers in tracking progress toward the goal, collecting data to measure savings and attribute savings to program participation and behavioral/operational changes.

5. Are there completely **new approaches** that you are considering as part of your overall conservation efforts?

- New Utility customer-billing system, with advanced opportunities for identifying, targeting, tracking and reporting EE
- Implement efficiency projects in PUD’s own facilities
- Account Managers with energy efficiency goals for largest commercial and industrial accounts
- Further leverage trade allies: contractors, installers, retailers, as well as upstream
- Engaging local and state governments to address efficiency in their own facilities and to raise awareness and encourage savings actions amongst their constituents
- Seek new ways to raise public consciousness/awareness of the need for efficiency resources
- Behavior– how to outreach to public cost-effectively to modify behavior and accurately and reliably determine savings benefits
- Adopting operational best practices for businesses/ multi-year plans  
\*Take advantage of longstanding relationships that local utilities have with staff at local businesses and industries. Often involves repeat participation in programs (can’t get it all at once.) A multi-year strategic energy management plan can help organization plan for long-term investments in efficiency.
- Embrace and encourage Community interest – leverage the efforts of grassroots and neighborhood organizations to maximize participation. Pilot working collaboratively with targeted local governments as a path engage local interest groups in EE projects.

6. What are the **challenges/opportunities** that you see in your energy efficiency efforts? What are your plans to address those challenges/opportunities? Are any of those challenges/opportunities capable of being **more productively addressed at the regional level**?

Challenges/opportunities

- Labor intensity required to effectively work at the local level.
  - Leverage local relationships with customers, esp. through utilities
  - Clear definition/understanding/adoption of topics best accountable at regional level
- Technologies – specifications, applications, operations
- Savings Performance/Evaluation
- Market
  - Coordination with Manufacturers
  - Work with major retailers; guidelines for local retailers
  - Contractor/installers: develop the training curriculum, installation standards and maintenance protocols

- State Codes. Federal and State Standards

Other Regional level opportunities - Continue the progress made in NEET WGs.

List some 'real time' items where progress is being made:

**WG 1: Measurement and Tracking Progress**

- Evaluation of the role of the RTF underway; identifying RTF research and funding needs for 2010. Ductless HP are in the field and evaluations are underway.
- Alignment of proposed WA Energy Code, NEEA Business Plan and other State and Regional initiatives with the 6<sup>th</sup> Power Plan assumptions and projections
- Coordinate reporting with States in measuring State energy efficiency "progress" – esp. as relates to needs for ARRA reporting

**WG 2: Emerging Technologies**

- Regional Coordination of EPRI's pilots for 6 EE measures – work to ensure that all measures are demonstrated within the region; share results early
- Cities are scrambling to determine if L<sup>ED</sup> street-lighting makes "cents" – part of the equation will depend on the longevity of the LED lights and resulting maintenance cost savings.
- (Gas – esp. water heating?)

**WG 3: High Performance Initiatives**

- ARRA Appliance Funding – Create relationships at the regional and national levels with retailers, property management firms, other "cross-utility"
- ARRA Energy Efficiency Pilots
- DOE and manufacturers are urging continued utility rebate support for CFLs.
- Consumer Electronics

**WG 4: Role of Marketing/Public Awareness**

- Is there an opportunity for a regional awareness campaign that aligns with and does not conflict with local efficiency campaigns?
- Leverage public interest in "cash for clunkers" ("dough for dishwashers")

**WG 5: Building the Workforce of the Future**

- A number of community colleges are offering training and curriculum to develop candidates for "green jobs", including energy management in the future
- Support to ensure funding and ongoing training of local utility staff
- Support to ensure education and training of energy efficiency to meet the workforce needs for contractors, sales, analysts, etc

**WG 6. Re-thinking Governance and Policies**

- WA State Energy Code: Coordinated information to utility community, and forum for utilities to comment.
- Publics have all renewed Energy Service Agreements with BPA. BPA is aggressively moving forward to support public utilities in meeting increased efficiency targets associated with the 6<sup>th</sup> Power Plan; BPA's Role post-2011 not yet defined.

*7. Are there other organizations you are relying upon to make your energy efficiency efforts more successful? How will you be relying on them?*

- **Third-Party Program Implementers, ESCOs.** Especially those regionally-based and with knowledge of NW regional utilities, energy issues, infrastructure. - (e.g. Ecos, PECEI, UCONS)
- **Mechanical and Lighting Contractors.** – e.g. McKinstry and other mechanical firms working with commercial customers to operate, upgrade and maintain equipment. These are the folks who are on the front-line to identify leads and opportunities at "time of replacement" decisions.
- **EPRI** – Coordinating technical research and development of near term emerging technologies in six major areas.
- **NEEA** – To lead commercialization of demonstrated technologies (e.g., ductless heat pumps), provide early, to develop and implement programs that rely more on upstream market intervention

(with manufacturers, wholesalers, retailers. Through market transformation efforts that create widespread supply and acceptance for technologies or practices not fully commercialized or widely adopted.

- **ESource** – Provide information about best practices program design and implementation from outside the region.
- **Other Puget Sound Utilities** – Through coordinated program design and implementation. Regional Information Resources – e.g., **Lighting Design Lab**, **WSU energy 'hotline'**, Residential and commercial code support