Purpa Overview / I-937 Conservation Plan Update

October 12, 2009

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Andy Wendell – Dept. Manager
Presentation topics:

• PURPA standards overview
• I-937 conservation & compliance overview
• Timeline & key milestones

Note:

• No action required today
• Seeking comment from commission
Timeline & Key Milestones:

- **10/12/09**: Commission Update on PURPA & I-937 (public input)
- **10/26/09**: Placeholder for public comment & board feedback on conservation
- **11/16/09**: Placeholder for Resolution on PURPA & I-937
- **01/01/10**: 10 Year Conservation Plan due to Department of Commerce

2009
• **Public Utility Regulatory Policies Act**

• Established 1978 – Reform aimed at:
  • Energy conservation for electric utilities
  • Operating efficiencies for electric utilities
  • Equitable rates for electrical customers
  • Required utilities to buy back power generated by qualified customers.

• Energy Act of 2007 added four (4) new standards
  • #16 Integrated Resource Planning
  • #17 Rate Design Modifications to Promote Energy Efficiency Investments
  • #18 Smartgrid Investments – addressed in 2008
  • #19 Smartgrid Information – addressed in 2008
Each electric utility shall-

(A) Integrate energy efficiency resources into utility, State, and regional plans; and

(B) Adopt policies establishing cost-effective energy efficiency as a priority resource
Rate Design Modifications to Promote Energy Efficiency Investments (17)

(A) In general – the rates allowed to be charged by any electric utility shall:
   i. Align utility incentives with the delivery of cost effective energy efficiency; and
   ii. Promote energy efficiency investments

(B) Policy options
Rate Design Modifications to Promote Energy Efficiency Investments (17)

(B) Policy options – In complying with subparagraph (A), each State regulatory authority and each non regulated utility shall consider-

i. Removing the throughput incentive and other regulatory and management disincentives to energy efficiency;

ii. Providing utility incentives for the successful management of energy efficiency programs;

iii. Including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;

iv. Adopting rate designs that encourage energy efficiency for each customer class;

v. Allowing timely recovery of energy efficiency related costs; and

vi. Offering home energy audits, offering demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing Federal and State incentives, including the availability of low-cost loans, that make energy efficiency improvements more affordable.
Staff initial recommendation:

District staff acknowledges that many facets of PURPA standards (16 & 17) are already being addressed, however in maintaining District flexibility and focus on compliance with State laws, staff will not recommend adopting as written.

Focus will be on compliance with:

RCW 19.280 – Electric Utility Resource Plans
Initiative I-937 compliance planning:

I-937: The Energy Independence Act
RCW 19.285

Washington’s Initiative 937, passed by voters in November 2006, requires the state’s major utilities to gradually increase the amount of new renewable resources in their electricity supply to 15 percent by 2020.

Electric utilities also must acquire all cost-effective energy conservation resources in their service territories beginning in 2010.

Rule making found under chapter 194-37 WAC
Mission Statement:
Offer a diversified portfolio of cost effective conservation programs to our customers that maximize the value to our rate payers while striving to meet the I-937 conservation targets.

Strategies:
• Diversify the portfolio of programs
• Benchmark year 1 and adjust in year 2
• Build maximum flexibility into programs
• Develop strong reporting with performance measures
• Seek interpretation when possible and collaborate with others
• Develop a sustainable economic justification tool and team to evaluate options
I-937 Conservation Planning

- Required ~3.0 aMW conserved (1st biennium)
- Targeted ~1.5 aMW conserved (2010)
- Annual District conservation budget (~$1.8 Million)
- Calculation methodology (Option 1)
- Reporting & documentation compliance (WAC Requirement)

- Conservation programs ("the stack")
- Program budget allocations
- Program incentive levels
- Duration of programs
Historical Conservation Achievements

First Biennium

Pro-rata share ~ 3.0aMW

Average Mega Watt

- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019

5th Power Plan Targets

Chelan PUD Conservation History

5th Power Plan Targets

6th Power Plan - Changing Targets
Conservation Planning – What others are considering (9/18/09 Cowlitz Meeting)

**Option I** (calculator):
- Chelan PUD
- Grant PUD
- City of Seattle
- Tacoma Power
- Benton PUD

**Option II** (modified calculator):
- Clark PUD
- Mason 3 PUD
- Inland Power
- Clallam PUD
- Lewis PUD
- Peninsula Light
- Grays Harbor PUD

**Option III** (specific study):
- Snohomish PUD
- Cowlitz PUD
5th Power Plan is the basis for the first biennium

Common assumptions among conservation planners:

- 6th plan will be adopted as drafted
- BPA is in full support of 6th plan targets
- Conservation targets are significantly higher
- Dependent upon emerging technologies

Most utilities project they will be doing a utility specific conservation analysis for the 2nd biennium
## Conservation Plan - “The Stack”

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimated aMW</th>
<th>Estimated Cost/Per aMW</th>
<th>Estimated % aMW Target</th>
<th>Estimated Budget</th>
<th>% of Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Incentives</td>
<td>.40 - .43</td>
<td>$ 687,000</td>
<td>27%</td>
<td>~$ 300,000</td>
<td>22%</td>
</tr>
<tr>
<td>Low Income Weatherization</td>
<td>.10 - .14</td>
<td>$ 565,000</td>
<td>8%</td>
<td>~$ 65,000</td>
<td>5%</td>
</tr>
<tr>
<td>Federal / State Stimulus</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Distribution Efficiencies</td>
<td>0.05 - .01</td>
<td>$ 167,000</td>
<td>5%</td>
<td>~$ 15,000</td>
<td>1%</td>
</tr>
<tr>
<td>Resource Smart</td>
<td>0.90 – 1.0</td>
<td>$ 1,040,000</td>
<td>60%</td>
<td>~$ 990,000</td>
<td>72%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>~ 1.50</td>
<td>~$ 870,000</td>
<td>100%</td>
<td>~$ 1,370,000</td>
<td>100%</td>
</tr>
</tbody>
</table>
Residential Programs

~35% of Target =

- Collaboration with Community Action Council
- Annual contribution Approx $67K
- Functional since 1990
- Anticipating updating inter-local agreement w/CAC
- Terminating loan program.
- Reducing administration costs
- Offering cash or coupon incentive programs
- Windows, doors, insulation
- CFL lighting
- Future- Appliance rebates and incentives
- Further detail planned for 10/26
## Residential Program Incentives

<table>
<thead>
<tr>
<th>Program</th>
<th>Incentive</th>
<th>aMW</th>
<th>IRR</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income Weatherization</td>
<td>$60K - $70K</td>
<td>.12</td>
<td>11.5%</td>
<td>• Historical perspectives</td>
</tr>
<tr>
<td>Weatherization Doors &amp; Windows</td>
<td>$100K - $120K</td>
<td>.06</td>
<td>8 %</td>
<td>• Reasonable best practices</td>
</tr>
<tr>
<td>Weatherization Insulation</td>
<td>$70K - $72K</td>
<td>.04</td>
<td>8.9 %</td>
<td>• Sustainable programs and incentives</td>
</tr>
<tr>
<td>Compact Florescent Light (CFL)</td>
<td>$38K - $42K</td>
<td>.11</td>
<td>27.5%</td>
<td>• Staff professional judgment</td>
</tr>
<tr>
<td>Change a Light</td>
<td>$75K - $80K</td>
<td>.17</td>
<td>26 %</td>
<td>• Incentive must meet District’s conservation economic model</td>
</tr>
<tr>
<td>Program</td>
<td>Incentive</td>
<td>aMW</td>
<td>IRR</td>
<td>Assumptions</td>
</tr>
<tr>
<td>-------------------------------------</td>
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<td>------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Industrial Refrigeration Fan Speed Controls</td>
<td>$260k</td>
<td>.24</td>
<td>18.7%</td>
<td>• Specific measures based on surveys and or studies done on individual industrial customers</td>
</tr>
<tr>
<td>Custom Industrial Resource$mart Project</td>
<td>$173K</td>
<td>.22</td>
<td>23%</td>
<td>• Incentive must meet District’s conservation economic model</td>
</tr>
<tr>
<td>Industrial Lighting</td>
<td>$289K</td>
<td>.22</td>
<td>14.9%</td>
<td>• Actual incentives based on very detailed business case</td>
</tr>
<tr>
<td>Commercial Lighting</td>
<td>$57K</td>
<td>.10</td>
<td>16.9%</td>
<td>• Measurement and verification required where appropriate</td>
</tr>
<tr>
<td>CO2 Scrubbers</td>
<td>$196K</td>
<td>.14</td>
<td>9.8%</td>
<td></td>
</tr>
<tr>
<td>Commercial Code Review</td>
<td>$15K</td>
<td>.04</td>
<td>34.5%</td>
<td></td>
</tr>
</tbody>
</table>
Risks & Exposures

- Not achieving targets (aMW)
- Resource requirement shortfalls
- Customer participation rates
- Customer satisfaction changes
- Economic volatility

<table>
<thead>
<tr>
<th>Achieved aMW</th>
<th>Shortfall aMW</th>
<th>Financial Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>.25 aMW</td>
<td>1.25 aMW</td>
<td>$547,500</td>
</tr>
<tr>
<td>.50 aMW</td>
<td>1.00 aMW</td>
<td>$438,000</td>
</tr>
<tr>
<td>1.00 aMW</td>
<td>.50 aMW</td>
<td>$219,000</td>
</tr>
<tr>
<td>1.50 aMW</td>
<td>0.00 aMW</td>
<td>$0</td>
</tr>
</tbody>
</table>

- Annual Target 1.50 aMW
- $50 MWh Penalty
Washington State Auditors Office guidance concerning conservation efforts:

- Offer a broad array of programs
- Will be looking for a good faith effort
- Documentation of process will be key
Next Steps - October 26th Meeting:

October 26th, 2009
• More discussion on proposed Conservation plans & District analysis of both PURPA standards
• Further Weatherization overview and details
• Time dedicated for public comment
• Will be noticed and advertised in advance
• Website will include opportunities to comment

November 16th, 2009
• Formal Hearing
Moving Forward