Purpa Overview / I-937 Conservation Plan Update

October 26, 2009

John Stoll – Director
Andy Wendell – Dept. Manager
Mark Wiser – Conservation Program Manager
Presentation topics:

• PURPA standards
• I-937 conservation & compliance
• Conservation incentive policy
• Weatherization incentive report
• Public Comment

Note:

• No action required today
• Seeking comment from commission and our customers
• 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
Integrated Resource Planning (16)

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
Integrated Resource Planning (16)

**Existing District Compliance**-

- Mandates an IRP update every two years

Key related sections:

a) An assessment of commercially available conservation/efficiency resources
e) An evaluation of all resources that meets the need of the utility at the lowest reasonable cost and risk to the utility and its ratepayers

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

CCPUD Response: Agree, In general District rate design and conservation program efforts support this goal
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.
Standard (17) - Policy option comparison

(B) Policy options –

i. Remove energy efficiency disincentive – **Not applicable, CCPUD utilizes a cost-effective conservation model**

ii. Providing utility incentives – **Yes, CCPUD provided energy efficiency/conservation incentives**

iii. Including energy efficiency as 1 of the goals of retail rate design – **Yes, CCPUD 2008 rate setting efforts included energy efficiency as a goal**

iv. Rate designs that encourage energy efficiency for each customer class - **Yes, CCPUD 2008 rate setting efforts included energy efficiency as a goal for each customer class**

v. recovery of energy efficiency related costs – **Yes, CCPUD cost-effective conservation model recovers energy efficiency related costs**

vi. Specific programs - **Yes, CCPUD will be offering various programs designed at delivering cost-effective conservation, however local control and what’s appropriate will be determined by the Board of Commissioners under the 10 year conservation plan in compliance with RCW 19.285, Energy Independence Act**
Staff 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:

## Conservation Plan - “The Stack”

<table>
<thead>
<tr>
<th>Resource $mart</th>
<th>Estimated aMW</th>
<th>Estimated Cost/Per aMW</th>
<th>Estimated % aMW Target</th>
<th>Estimated Budget</th>
<th>% of Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Incentives</td>
<td>~.30 - .40</td>
<td>~$ 680,000</td>
<td>~20%</td>
<td>~$ 250,000</td>
<td>~17%</td>
</tr>
<tr>
<td>Low Income Weatherization</td>
<td>~.05 - .10</td>
<td>~$ 1,230,000</td>
<td>~3%</td>
<td>~$ 65,000</td>
<td>~5%</td>
</tr>
<tr>
<td>Federal / State Stimulus RCM &amp; Clothes Washer</td>
<td>~.15 - .20</td>
<td>~$ 175,000</td>
<td>~10%</td>
<td>~$ 32,000</td>
<td>~2%</td>
</tr>
<tr>
<td>Distribution Efficiencies</td>
<td>~0.01 - .05</td>
<td>~$ 170,000</td>
<td>~2%</td>
<td>~$ 7,000</td>
<td>~1%</td>
</tr>
<tr>
<td>Resource$mart</td>
<td>~0.90 – 1.0</td>
<td>~$ 1,100,000</td>
<td>~65%</td>
<td>~$ 990,000</td>
<td>~75%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>~ 1.50 – 1.75</td>
<td>~$ 815,000</td>
<td>100%</td>
<td>~$ 1,430,000</td>
<td>100%</td>
</tr>
</tbody>
</table>
Energy Conservation Incentive Policy:

**Policy Purpose:**

1. Creates a consistent process for establishing Conservation Measures & Incentives

2. Ensures proper levels of authorization & controls

3. Utilizes a Conservation Incentive Committee

4. Establishes “Guiding Principles” for setting incentives

5. Ensures proper reporting, documentation, & compliance
Energy Conservation Incentive Policy:

Authorization & Controls

Board of Commissioners approve a 10-year conservation potential and a 2-year target.

Board approves total dollar amount of the Conservation Measures & Incentives as a part of the annual budget approval process.

Multi-disciplined committee reviews & recommends specific Conservation Measures and Incentives to the General Manager.

General Manager will approve, adjust or terminate Incentive levels within the Board-approved budget.
Energy Conservation Incentive Policy:

Review Committee

- Compliance Manager
- General Council (or designee)
- Chief Financial Officer (or designee)
- Director of Customer Service
- Director of Power Management (or designee)
- Manager of Conservation (chair)

- Review & recommend measures & incentives that ensure compliance with RCW 19.285 & accountability to the guiding principles
- Ongoing & periodic updates to General Manager & Board of Commission
Energy Conservation Incentive Policy:

Guiding Principles

- Positive Internal Rate of Return (IRR)
- Feasible & Achievable
- Risk Adjusted
- Diversified
- Documented
Moving Forward

Weatherization Incentive Program

• Cash incentives for:
  • Attic, wall & crawlspace insulation
    • $0.25 per/ft²
  • Windows and glass doors
    • $3.00 per/ft²
## Moving Forward

<table>
<thead>
<tr>
<th>Project #1</th>
<th>Cost</th>
<th>Incentive</th>
<th>Ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attic</td>
<td>$1,761</td>
<td>$403</td>
<td></td>
</tr>
<tr>
<td>Floor /Wall</td>
<td>$1,761</td>
<td></td>
<td>1610</td>
</tr>
<tr>
<td>Window</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$1,761</td>
<td>$403</td>
<td>23%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project #2</th>
<th>Cost</th>
<th>Incentive</th>
<th>Ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attic</td>
<td>$848</td>
<td>$281</td>
<td>1125</td>
</tr>
<tr>
<td>Floor /Wall</td>
<td>$160</td>
<td>$36</td>
<td>145</td>
</tr>
<tr>
<td>Window</td>
<td>$4,875</td>
<td>$585</td>
<td>195</td>
</tr>
<tr>
<td>Total</td>
<td>$5,883</td>
<td>$903</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project #3</th>
<th>Cost</th>
<th>Incentive</th>
<th>Ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attic</td>
<td>$1,175</td>
<td>$363</td>
<td>1450</td>
</tr>
<tr>
<td>Floor /Wall</td>
<td>$3,775</td>
<td>$453</td>
<td>151</td>
</tr>
<tr>
<td>Window</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$4,950</td>
<td>$816</td>
<td>16%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project #4</th>
<th>Cost</th>
<th>Incentive</th>
<th>Ft²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor /Wall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window</td>
<td>$9,934</td>
<td>$1,104</td>
<td>368</td>
</tr>
<tr>
<td>Total</td>
<td>$9,934</td>
<td>$1,104</td>
<td>11%</td>
</tr>
</tbody>
</table>
Weatherization Program Highlights

• Begins January 1, 2010

• All electrically heated residential dwellings are eligible
  • Site built, manufactured, modular
  • Multi-family up to four-plex

• Projects capped at $2,500

• All licensed contractors eligible to participate

• Customers can still finance through local banks and credit unions
How it Works

• Customer submits one page application form
  • Apply within 90 days of invoice
  • Attach invoice/receipt

• Random PUD inspections for contracted work
  • Mandatory inspections for Do-it-Yourself

• Check issued within 6 - 8 weeks

• Energy savings entered into CIS for I-937 reporting
Informing our Customers

- *November* – communicate with installers
- *December* – postcard notification & Web page
- *January* – small media campaign
- *Spring* – broader campaign coinciding with construction season
Next Steps:

11/16 - PURPA and I937 Hearing

- Overview of I937 plans and PURPA recommendation
- Further public comment
- Prepare resolutions for Commission action
Low-income Weatherization

• Collaboration with Community Action Council

• Annual contribution Approx $67K
  – Matched by State Energy Matchmaker Program

• Monthly electronic reporting automatically uploaded into our tracking and reporting system

• Energy efficiency measures attached to premise for meeting I-937 and future conservation potential studies.
Compact Florescent Lamps

• Bulk purchase to be delivered in a variety of ways
  – Public Events
  – Community Action Council energy assistance applicants
  – District offices

• Change a Light Program
  – Buy down of costs for specialty lamps at local retail outlets
Resource$mart

• All proposed projects have high rate of return to the District

• Demand for Resource$mart funding exceeds the supply

• Metering baseline consumption in 2010 will establish 2011 incentive rates.
Other Programs

• Resource Conservation Manager Partnership

• Energy Star Clothes Washer Incentive

• Placing heating ducts inside the heated envelope

• Commercial Plan Review and inspections
## Commercial/Industrial Programs Incentives

**Resource$mart**

<table>
<thead>
<tr>
<th>Program</th>
<th>Incentive</th>
<th>aMW</th>
<th>IRR</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Refr. Fan Speed Controls</td>
<td>~$653k</td>
<td>~.60</td>
<td>~21%</td>
<td>• Specific measures based on surveys and/or studies done on individual industrial customers</td>
</tr>
<tr>
<td>Custom Industrial Project</td>
<td>~$173K</td>
<td>~.22</td>
<td>~29%</td>
<td>• Incentive must meet District’s conservation economic model</td>
</tr>
<tr>
<td>Industrial Lighting</td>
<td>~$173K</td>
<td>~.13</td>
<td>~17%</td>
<td>• Actual incentives based on very detailed business case</td>
</tr>
<tr>
<td>Commercial Lighting</td>
<td>~$57K</td>
<td>~.10</td>
<td>~23%</td>
<td>• Measurement and verification required where appropriate</td>
</tr>
<tr>
<td>Commercial Code Review</td>
<td>~$15K</td>
<td>~.04</td>
<td>~33%</td>
<td></td>
</tr>
</tbody>
</table>
# 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>~.03-.08</td>
<td>~13%</td>
<td>• Historical perspectives</td>
</tr>
<tr>
<td>Weatherization Doors &amp; Windows</td>
<td>~$80K - $100K</td>
<td>~.03-.08</td>
<td>~10%</td>
<td>• Reasonable best practices</td>
</tr>
<tr>
<td>Weatherization Insulation</td>
<td>~$50K - $70K</td>
<td>~.03-.08</td>
<td>~10%</td>
<td>• Sustainable programs and incentives</td>
</tr>
<tr>
<td>Compact Florescent Light (CFL)</td>
<td>$50K - $60K</td>
<td>~.10-.20</td>
<td>~28%</td>
<td>• Staff professional judgment</td>
</tr>
<tr>
<td>Change a Light</td>
<td>$30K - $50K</td>
<td>~.05-.10</td>
<td>~30%</td>
<td>• Incentive must meet District’s conservation economic model</td>
</tr>
</tbody>
</table>
Questions - Comments