PNM Energy Efficiency Program

Southwest Regional Energy Efficiency Workshop

December 8-9, 2011
1. Selected Program Metrics
2. Program Highlights
   • Easy Savings Low-Income Kits
   • Proposed Whole House Program
3. Proposed New Programs – 2012 Filing
4. Issues & Challenges
   *****
   Appendix – Program List
## 2011 Demand Response Events

<table>
<thead>
<tr>
<th>Event Date</th>
<th>Event Start Time</th>
<th>Event End Time</th>
<th>Preliminary Total Event Performance (kW)</th>
<th>Reason for Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/23/2011</td>
<td>4:00 PM</td>
<td>6:00 PM</td>
<td>70,838</td>
<td>High temperatures and higher than forecasted loads.</td>
</tr>
<tr>
<td>6/24/2011</td>
<td>4:00 PM</td>
<td>6:00 PM</td>
<td>67,051</td>
<td>High temperatures and higher than forecasted loads.</td>
</tr>
<tr>
<td>6/27/2011</td>
<td>4:00 PM</td>
<td>7:00 PM</td>
<td>64,730</td>
<td>High temperatures and higher than forecasted loads.</td>
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<tr>
<td>6/28/2011</td>
<td>3:00 PM</td>
<td>6:00 PM</td>
<td>68,143</td>
<td>High temperatures and higher than forecasted loads.</td>
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<tr>
<td>7/5/2011</td>
<td>4:00 PM</td>
<td>6:00 PM</td>
<td>66,955</td>
<td>San Juan 2 and 4 off-line</td>
</tr>
<tr>
<td>7/6/2011</td>
<td>2:00 PM</td>
<td>6:00 PM</td>
<td>66,934</td>
<td>High temperatures and higher than forecasted loads.</td>
</tr>
<tr>
<td>7/8/2011</td>
<td>3:00 PM</td>
<td>6:00 PM</td>
<td>63,301</td>
<td>San Juan 4 off-line and higher than forecasted loads.</td>
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<tr>
<td>7/18/2011</td>
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<td>6:00 PM</td>
<td>64,974</td>
<td>San Juan 2 and 3 off-line and higher than forecasted loads.</td>
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<tr>
<td>7/19/2011</td>
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<td>6:00 PM</td>
<td>62,546</td>
<td>San Juan 2 and 3 off-line and higher than forecasted loads.</td>
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<tr>
<td>7/20/2011</td>
<td>3:00 PM</td>
<td>6:00 PM</td>
<td>60,806</td>
<td>San Juan 2 and 3 off-line and higher than forecasted loads.</td>
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<tr>
<td>8/9/2011</td>
<td>4:00 PM</td>
<td>6:00 PM</td>
<td>63,364</td>
<td>High temperatures and higher than forecasted loads.</td>
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<tr>
<td>8/23/2011</td>
<td>2:00 PM</td>
<td>7:00 PM</td>
<td>63,158</td>
<td>System Reliability Emergency.</td>
</tr>
<tr>
<td>8/24/2011</td>
<td>2:00 PM</td>
<td>7:00 PM</td>
<td>63,091</td>
<td>System Reliability Emergency.</td>
</tr>
<tr>
<td>8/31/2011</td>
<td>2:00 PM</td>
<td>6:00 PM</td>
<td>60,743</td>
<td>San Juan 3 off-line and higher than forecasted loads.</td>
</tr>
</tbody>
</table>

2011 Summary: 14 events – 45 hours – 64 MW average performance
Program Highlight
“Easy Savings” Kits

Program Elements
• Customized mail-order kits
• Participant selects 6 CFLs (13 – 23 Watt)
• Other items:
  • Low-flow showerhead
  • Faucet aerators
  • Digital thermometer
  • Stickers - magnets
  • Easy-to-read instructions
  • EE education – savings tips
  • Survey

Program Delivery
• Third-party implementer: Resource Action Programs
• Primary outreach – direct mail to LIHEAP qualified customers
• Secondary outreach – low income agencies
• 3 Year direct mail response rate: 20%
Program Highlight
“Easy Savings” Kits

Independent M&V

- 330 kWh per kit
- 45 kWh per CFL
- 61 kWh per showerhead (18% electric penetration)
- NTG = 100%
- 7.6 year EUL

2010 Performance

- 7,251 kits
- 2.4 GWH annual savings
- $433,000 total program cost (including all internal allocated costs)

<table>
<thead>
<tr>
<th></th>
<th># Mailers</th>
<th># Enrollments</th>
<th>Response Rate</th>
<th>Total w/ Agency Kits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>31,721</td>
<td>7,781</td>
<td>25%</td>
<td>8,681</td>
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<tr>
<td>2010</td>
<td>32,628</td>
<td>6,803</td>
<td>21%</td>
<td>7,251</td>
</tr>
<tr>
<td>2011</td>
<td>36,574</td>
<td>5,551</td>
<td>15%</td>
<td>7,437*</td>
</tr>
<tr>
<td></td>
<td>100,923</td>
<td>20,135</td>
<td>20%</td>
<td>23,369</td>
</tr>
</tbody>
</table>

*projected
Program Highlight
Whole House (Proposed)

Program Concept

1. $40 walk-through audit includes installation of:
   • Up to 20 CFLs
   • Programmable t-stat
   • Low-flow showerheads
   • Faucet aerators
2. $250 rebate on one major ES appliance:
   • Refrigerator
   • Dishwasher
   • Clothes washer
3. $500 rebate on A/C replacement:
   • Existing system $\leq 10$ SEER
4. Cross-sell evaporative cooling rebate:
   • Up to $400$ retail rebate
Program Highlight
Whole House (Proposed)

Year One Program Metrics

• Participation target: 1,000 homes
• Budget: $825,000
• Average gross savings per home: 1,114 kWh
• Projected NTG ratio: 70%
• Net program energy savings: 780,000 kWh
• Average EUL: 9 years

Program Delivery

• Third-party or in-house
• Trade ally network:
  ➢ Home assessors
  ➢ Participating HVAC
• Target markets:
  ➢ Older homes
  ➢ Homes w/ older HVAC
• Cross-promote:
  ➢ NMGC rebates on insulation and furnaces
Proposed New Programs
2012 Filing

Whole House

Home Energy Reports
- 40,000 – 60,000 homes
- 6 reports per year
- First year savings: 1.5% ~ 4 – 6 GWH

Home Cooling
- Mail-in rebate – participating retailers
- Solid media evaporative & ES window
- First year Savings: 2,400 units, 1.3 GWH

Pool Pumps
- Mail-in $200 rebate
- Variable speed pump + integrated controller
- First year Savings: 100 pumps, 0.1 GWH

Student Kits
- 2 CFLs + LF showerhead + education
- First year savings: 4,500 kits; 0.4 GWH

Building Tune-Up
- Low-cost measures: set points, lighting schedules, economizer settings, etc.
- Web-based monitoring
- First year savings: 1.3M Sq Ft ~ 0.6 GWH

Load Management
- Under-served market: 150 kW – 500 kW
- Direct load control – TES
- Target capacity: 20 – 40 MW
Issues & Challenges

1. Budget Approval
   • 2012 plan would increase tariff from 2.5% to 3.2% of customer bills

2. Utility Incentive/Disincentive Uncertainty
   • Supreme Court rejected PRC rule

3. Program Delivery Options
   • Third-party or in-house
Thank You!

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2011 Program List
Residential

Refrigerator Recycling

Residential Lighting
• Up-stream, buy-down

Low Income
- Refrigerator and CFLs
- EnergySmart for Renters
• Implemented by State WAP agency

Easy Savings
• Low-income kits

Community CFL
• Giveaways at low-income events

Load Management
• Power Saver (direct load control)

Market Transformation
• Education and general EE promotion
2011 Program List
Non-Residential

Commercial Comprehensive
- Retrofit rebates
- New construction rebates
- QuickSaver™ (less than 100 kW, direct-install program)

Refrigerator Recycling

Load Management
- Power Saver (less than 150 kW)
- Peak Saver (150 kW and greater)

ENERGY STAR® Homes

Large Customer Self-Direct
- Rate rider opt-out program
# Program Budget & Savings Summary

<table>
<thead>
<tr>
<th>Program</th>
<th>2010 Actual Costs</th>
<th>2010 Actual Savings (kWh)</th>
<th>2012 Projected Costs</th>
<th>2012 Projected Savings (kWh)</th>
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</thead>
<tbody>
<tr>
<td>Refrigerator Recycling</td>
<td>$1,293,092</td>
<td>7,312,412</td>
<td>$1,300,000</td>
<td>7,100,000</td>
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<td>Residential Lighting</td>
<td>$1,748,973</td>
<td>20,583,370</td>
<td>$1,800,000</td>
<td>21,000,000</td>
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<tr>
<td>Energy Star Home</td>
<td>$518,795</td>
<td>830,586</td>
<td>$429,000</td>
<td>458,000</td>
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<tr>
<td>Load Management</td>
<td>$6,781,633</td>
<td>67 MW</td>
<td>$7,100,000</td>
<td>68 MW</td>
</tr>
<tr>
<td>Easy Savings Kit</td>
<td>$433,080</td>
<td>2,390,391</td>
<td>$426,000</td>
<td>2,300,000</td>
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<td>CFL- Refrig Replacement</td>
<td>$524,494</td>
<td>1,245,419</td>
<td>$440,000</td>
<td>1,100,000</td>
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<tr>
<td>Commercial Comprehensive</td>
<td>$4,953,624</td>
<td>26,104,137</td>
<td>$5,400,000</td>
<td>31,000,000</td>
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<tr>
<td>Market Transformation</td>
<td>$322,017</td>
<td>NA</td>
<td>$107,000</td>
<td>NA</td>
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<tr>
<td>Energy$mart for Renters</td>
<td></td>
<td></td>
<td>$455,000</td>
<td>921,000</td>
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<tr>
<td>Community CFL</td>
<td>$31,437</td>
<td>341,564</td>
<td>$10,000</td>
<td>100,000</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$16,607,144</strong></td>
<td><strong>58,807,879</strong></td>
<td><strong>$17,467,000</strong></td>
<td><strong>63,979,000</strong></td>
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</table>