Promoting Energy Efficiency

Energy Efficiency Update

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SWEEP Conference
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Quick History Lesson

• APS Settlement Agreement April 7, 2005
• $16M/year for approved “energy-efficiency DSM”
• DSM Collaborative Group established
• APS DSM Portfolio Plan filed July 1, 2005
• Portfolio programs approved in 3 open meetings
  • August 2005 – Consumer Products
  • February 2006 – Non-Residential Programs
  • April 2006 – Remaining Residential Programs
DSM Programs

• Non-Residential
  – Large Existing Facilities
  – New Construction and Major Renovation
  – Small Business
  – Schools
  – Building Operator Training
  – Energy Information Services

• Residential
  – New Construction
  – Existing Homes HVAC
  – Consumer Products
  – Low Income
APS Solutions for Business

- **APS Energy Efficiency Programs for Business**
  - Promote the implementation of cost-effective energy efficient measures in non-residential facilities
- **Target market**
  - Non-residential - commercial, industrial, and institutional customers of all sizes in APS’ service territory
- **Total incentive funding (approx.):** $10,500,000
- **Implemented by KEMA**
APS Business Solutions - Overview of Incentives

- **Prescriptive Incentives** for energy efficiency equipment upgrades to lighting, cooling, refrigeration and motors

- **Custom Incentives** for equipment not included in the prescriptive program, such as economizers and building envelope improvements

- **Energy Studies** partial funding of design assistance, feasibility, commissioning and retro-commissioning studies for up to 50% of the study cost or $10,000 maximum
Other Non-Residential DSM Programs

- Building Operator Training (BOT) is subsidized in a cooperative effort with the Electric League of Arizona (ELA) to encourage energy-efficient building operating & maintenance practices
- Energy Information Services will be offered in the near future. This program will provide a web-based energy information tool that provides near real-time feedback on energy consumptions and load profiles to customers
# Customer Participation Levels

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Reserved &amp; Paid</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>College/University (0)</td>
<td>$ -</td>
<td>0.0%</td>
</tr>
<tr>
<td>Grocery (8)</td>
<td>$ 359,000</td>
<td>13.6%</td>
</tr>
<tr>
<td>Hotel/Motel (1)</td>
<td>$ 29,000</td>
<td>1.1%</td>
</tr>
<tr>
<td>K-12 School (15)</td>
<td>$ 425,000</td>
<td>16.1%</td>
</tr>
<tr>
<td>Medical (17)</td>
<td>$ 281,000</td>
<td>10.6%</td>
</tr>
<tr>
<td>Miscellaneous (13)</td>
<td>$ 65,000</td>
<td>2.5%</td>
</tr>
<tr>
<td>Office (20)</td>
<td>$ 481,000</td>
<td>18.2%</td>
</tr>
<tr>
<td>Industrial (9)</td>
<td>$ 291,000</td>
<td>11.0%</td>
</tr>
<tr>
<td>Restaurant (11)</td>
<td>$ 27,000</td>
<td>1.0%</td>
</tr>
<tr>
<td>Retail (20)</td>
<td>$ 477,000</td>
<td>18.0%</td>
</tr>
<tr>
<td>Warehouse (6)</td>
<td>$ 210,000</td>
<td>7.9%</td>
</tr>
<tr>
<td><strong>Total (120)</strong></td>
<td><strong>$ 2,645,000</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Estimated Project Savings equals 6.2 kW demand and 808,990 Lifetime MWh. This represents approximately 25% of Program total of kW, 35% of total Lifetime MWh savings, and 25% of total program incentives available.
$2.65M Committed to Date

Percent of Total Incentives Reserved or Paid

- Grocery (8): 16%
- Hotel/Motel (1): 11%
- K-12 School (15): 8%
- Medical (17): 8%
- Miscellaneous (13): 2%
- Office (20): 11%
- Industrial (9): 1%
- Restaurant (11): 1%
- Retail (20): 1%
- Warehouse (6): 14%
Energy Wise Low Income Weatherization Program

- In effect since 1996
- Increase from $500K to $1.1M/yr
- Changes:
  - Allow rentals
  - Increases the limit per home from $1,500 to $6,000
  - Allow refrigerators and CFL’s
  - Bill assistance: $250K/Year, or $750K through 2007
  - Increase bill assistance from $300 to $400/yr/customer
  - Includes funds earmarked for Tribes ($100K per year)
Residential Existing Homes HVAC

- AC Replacement (14+ SEER)
  - $250/unit for > 14 SEER/12 EER
  - $400/unit for > 16 SEER/14 EER
- Verified Quality Installation
  - $100/unit = sizing, charge, airflow
- HVAC System Testing and Upgrades
  - Up to $250 per home (75% of job cost)
- Seasonal Equipment Tune-Ups
- HVAC Technician Training
- Consumer Information
Residential Existing Homes HVAC

- Kicked off to customers June 1
- Implemented “in-house”, support from KEMA
- Over 1500 applications received to date
- Paid to date:
  - $250 rebates = 503
  - $400 rebates = 427
- Challenges –
  - Availability of package equipment
  - Getting good info from contractors – EER, ARI #
Residential New Construction

- **Energy Star Homes**
  - Based on more stringent 2006 standard
  - Includes
    - HVAC
    - Windows/Thermal envelope
    - Lighting/Appliances
    - Testing and inspections
- **Builder incentives = $400/home**
- **Builder/Realtor training**
- **Consumer information**
- **Implemented “in-house”**
Residential New Construction

- Kicked off to builders July 1, 2006
- Interesting market dynamics!
- Successes to date:
  - Signed builders include: Pulte/Del Webb, Centex, Columbia Communities, Talas Homes, Keystone Homes, Homes by Towne, Empire Homes, Monogram Custom Homes
  - Over 20 communities and over 15,000 homes signed!
- Currently lots of work on sales materials and collateral to support participating builders
Consumer Products Program

- Wholesale buy-down of CFL bulbs
  - Price point of < $1.00 per bulb
- Work with retailers to promote Energy Star products
  - Retailer sales training
  - In-store displays
  - Special events
- Consumer education
- Implemented by Ecos Consulting
Consumer Products Program Results

• Kicked-off to consumers October 2005 - National Energy Star “Change a Light Day”
• Consumer Events – Educational events at retail stores, community events, CFL giveaways
• Retailers include -- Ace, AJ’s, Bashas, Big Lots, Costco, Food City, Home Depot, Lowe’s, True Value, Wal-Mart, Walgreens
• Great service territory coverage
• Results to Date (Oct 05-Oct 06) > 1.3 million CFLs
Future Plans and Program Ideas

• Non-Residential
  – Roll out Energy Information Services
  – “13 month filing”
• Residential HVAC
  – Roll out additional approved measures
  – Potential for Home Performance with Energy Star
• Residential New Construction
  – Manufactured housing
• Consumer Products
  – Additional lighting products (dimmable CFLs)
• Other
  – Urban Heat Island
  – Demand Response