DSM Program Update

Arizona Public Service Co. (APS)

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Manager, DSM Programs
DSM Program Update

1. Current Status of EE Programs
2. Featuring 2 EE Programs
   • Residential ➔ Home Performance with ENERGY STAR
   • Business ➔ Small Business Express Solutions
3. Program Savings and Budget
   • 2011
   • 2012 proposed
Current DSM Program Status

• Goal for 2011
  – $60 million EE program spending
  – 352,000 MWh of EE savings
  – Total DSM savings equivalent to 1.25% of Retail Sales

• Expected Year-End Results
  – Program spending of approximately $55-$58 million
  – EE savings of ~390,000 MWh (or 430,000 MWh including DR savings)

→ Exceed savings goal by ~10%; while being ~5% under budget
Featured Programs

1. Home Performance with ENERGY STAR

2. Small Business Express Solutions
Why This Program?

**ISSUE:** Needed way to get deeper and more comprehensive energy savings per home

- Have programs for many individual end uses and equipment/appliances
- Won’t be able to meet future EE goals with only individual equipment-focused programs
- Customers want overall assessment and prioritization of actions with most impact on electric bill
Home Performance with ENERGY STAR

Background

• Launched in March 2010
• Contractor Based Model
  – General Contractors
  – BPI Certification per Auditor
• Implementation Partners:
  – FSL Home Energy Solution
  – Conservation Services Group
• Implemented in partnership with other electric utilities in AZ; working with gas companies to integrate with them
Home Performance with ENERGY STAR Program Concept

• Customers Start with a “Checkup”
  – Customer Pays $99
  – Contractor receives an additional $200 incentive from APS

• Home Energy Checkup Includes
  – Blower Door Test
  – Duct Test
  – Infrared Diagnostics (when temp allows)
  – Health and Safety Testing
  – HVAC and Envelope Evaluation
  – Home is Energy Modeled and Report is provided to customers showing estimated costs and savings for each recommended action
Home Performance with ENERGY STAR Incentives and Financing

*If customer implements recommendations, then eligible for following incentives:*

- Duct Sealing up to $250 per system
- Air Sealing up to $250 per home
- Attic Insulation up to $250 per home
- Shade Screen up to $250 per home
- HVAC - $175 to $525, depending on SEER
- Financing (launched March, 2011):
  - $1,000 - $15,000
  - Unsecured up to 60 months
  - Low fixed rate (currently 5.99%)

Performance based rebates proposed for 2012; currently under commission review
Home Performance with ENERGY STAR

Results

• Number of audits completed:
  – 2010: 2,363
  – 2011: 4,473 YTD

• 38% conversion rate to follow-up work after checkup

• Average project is a basic weatherization: duct sealing, air sealing and insulation

• 47 loans
  – $292,772 total loan value (YTD)

• Represents 5% of the total residential annual energy savings in 2011 ... and growing

• Program recognized in 2011 with ENERGY STAR partner of the year – HPwES Emerging Markets.
Home Performance with ENERGY STAR
What Makes It Different?

• Whole house energy retrofitting
• Strong contractor model
  – Network of over 75 participating contractors
  – Contractors provide full service auditing and installation
• Good complement to ENERGY STAR new homes program and low income weatherization program
• Market consistency through utility collaboration
• Unique market factors
  – Decline in new home construction helped build work force for existing home retrofits
  – ARRA spending facilitated contractor development
Featured Programs

1. Home Performance with ENERGY STAR

2. Small Business Express Solutions
Small Business Express Solutions

Why This Program?

ISSUE: Needed to get small businesses more involved in energy efficiency

- Barriers to overcome
  - Not focused on energy savings; too many other priorities
  - Limited time to evaluate and “make the right choice” for EE
  - Very limited budget to fund EE investment
Small Business Express Solutions

Background

• Approved and introduced in 2009
• Program concept
  – Utilize existing contractors who specialize in serving small business customers
  – Provide consistent framework for assessment, savings estimation, and customer approval
  – Minimize up front cost to customers
  – Make it easy for customers and contractors
• Program implementation
  – 34 contractors currently working in program
  – Most jobs are lighting retrofits or refrigeration
Small Business Express Solutions
Program Concept

• How it works ...
  – Contractor conducts free energy assessment for customer
  – Contractor presents energy saving opportunities to customer for consideration
  – Customer decides to move forward and gives approval; project approved by APS
  – Contractor installs measures
  – Once project is complete
    • APS approves and sends payment to contractor
    • Customer pays contractor the balance of job
    • Customer realizes future bill savings
Small Business Express Solutions Results

- Number of projects completed:
  - 2010: 1,124
  - 2011: 1,684 YTD
- Conversion rate from sale to project of 78%
- Average portion of cost paid by customer is 27%
- Most common projects are: lighting and refrigeration
- Financing available to small business customers for their share of up front costs
- Represents ~20% of the total non-residential annual energy savings in 2011 ... and growing
- Program increasingly popular with customers and contractors
Small Business Express Solutions
What Makes It Different?

- Higher % of incremental cost paid by APS compared to other programs
- Contractor network specializing in this customer segment and these types of projects
- Participation is hassle free to customers and doesn’t require significant investment
- Very quick payback to customers
Program Savings and Budget

1. 2011
2. 2012
## 2011 EE Program Savings and Budget

<table>
<thead>
<tr>
<th>RESIDENTIAL</th>
<th>Annual MWh Savings</th>
<th>% of Total EE Savings</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Products</td>
<td>99,000</td>
<td>28%</td>
<td>$7,547,000</td>
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<tr>
<td>Existing Homes</td>
<td>21,000</td>
<td>6%</td>
<td>$14,812,000</td>
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<tr>
<td>New Construction</td>
<td>8,000</td>
<td>2%</td>
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<tr>
<td>Appliance Recycling</td>
<td>11,000</td>
<td>3%</td>
<td>$1,661,000</td>
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<tr>
<td>Low Income</td>
<td>2,000</td>
<td>1%</td>
<td>$2,779,000</td>
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<tr>
<td>Conservation Behavior</td>
<td>25,000</td>
<td>7%</td>
<td>$1,017,000</td>
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<tr>
<td>Multi-Family</td>
<td>4,000</td>
<td>1%</td>
<td>$1,277,000</td>
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<tr>
<td>Shade Trees</td>
<td>1,000</td>
<td>&lt;1%</td>
<td>$444,000</td>
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<tr>
<td><strong>RESIDENTIAL TOTAL</strong></td>
<td><strong>171,000</strong></td>
<td><strong>49%</strong></td>
<td><strong>$32,337,000</strong></td>
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</table>

<table>
<thead>
<tr>
<th>NON-RESIDENTIAL</th>
<th>Annual MWh Savings</th>
<th>% of Total EE Savings</th>
<th>Budget</th>
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<tbody>
<tr>
<td>Large Existing</td>
<td>101,000</td>
<td>29%</td>
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<tr>
<td>New Construction</td>
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<td>Small Business</td>
<td>28,000</td>
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<td>$4,460,000</td>
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<td>Schools</td>
<td>23,000</td>
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<td>Energy Info Services</td>
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<td><strong>NON-RESIDENTIAL TOTAL</strong></td>
<td><strong>181,000</strong></td>
<td><strong>51%</strong></td>
<td><strong>$25,315,000</strong></td>
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</tbody>
</table>

| TOTAL EE PROGRAMS            | 352,000            | 100%                  | $57,652,000 |

### Notes
- RESIDENTIAL TOTAL: $32,337,000
- NON-RESIDENTIAL TOTAL: $25,315,000
- TOTAL EE PROGRAMS: $57,652,000
## 2012 EE Program Savings and Budget

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<thead>
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<tr>
<td>Consumer Products</td>
<td>135,000</td>
<td>28%</td>
<td>$7,605,000</td>
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<tr>
<td>Existing Homes</td>
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<td>Appliance Recycling</td>
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<td>Conservation Behavior</td>
<td>31,000</td>
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<tr>
<td>Multi-Family</td>
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<td>Shade Trees</td>
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<td><strong>RESIDENTIAL TOTAL</strong></td>
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<td><strong>49%</strong></td>
<td><strong>$34,713,000</strong></td>
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<table>
<thead>
<tr>
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<th>Budget</th>
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<tr>
<td>Large Existing</td>
<td>152,000</td>
<td>32%</td>
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<td>New Construction</td>
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<td>$3,498,000</td>
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<tr>
<td>Small Business</td>
<td>32,000</td>
<td>7%</td>
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<tr>
<td>Schools</td>
<td>33,000</td>
<td>7%</td>
<td>$3,614,000</td>
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<td>Energy Info Services</td>
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<td><strong>NON-RESIDENTIAL TOTAL</strong></td>
<td><strong>245,000</strong></td>
<td><strong>51%</strong></td>
<td><strong>$29,968,000</strong></td>
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</table>

| TOTAL EE PROGRAMS      | 480,000            | 100%                  | $64,681,000  |
Summary

• Expect to meet 2011 goals
• 2 featured programs doing very well and growing
• Key challenges ahead:
  - Approval of 2012 DSM Plan
  - Desire by regulators to achieve higher savings goals for less budget money
  - Ability to get decoupling approved
  - Debate over methods to use to determine cost effectiveness of measures