Today’s Topics

1. **Program Results**
   - Spending
   - Savings
   - Cost effectiveness

2. **New Since Last Year**
   - New programs in 2010
   - Financing option
   - Coordination with ARRA activities

3. **Coming Soon**
   - EE Standard in AZ
   - Program changes for 2011
## Program Results -- Spending
($MM) including Performance Incentive

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$ 3.2</td>
<td>$ 10.6</td>
<td>$ 19.4</td>
<td>$ 24.2</td>
<td>$ 25.6</td>
<td>$ 48.9</td>
<td>$ 68.6</td>
<td>$120.0*</td>
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</tbody>
</table>

* Preliminary estimate

![Graph showing annual spending from 2005 to 2012]
## Program Results – Savings*

*(MWh)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Savings</th>
<th>% of Sales</th>
<th>Cumulative Savings</th>
<th>% of Sales</th>
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<tbody>
<tr>
<td>2005</td>
<td>19,000</td>
<td>0.1%</td>
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<tr>
<td>2006</td>
<td>82,000</td>
<td>0.3%</td>
<td>101,000</td>
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<td>2007</td>
<td>209,000</td>
<td>0.7%</td>
<td>310,000</td>
<td>1.1%</td>
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<tr>
<td>2008</td>
<td>255,000</td>
<td>0.8%</td>
<td>565,000</td>
<td>1.9%</td>
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<tr>
<td>2009</td>
<td>209,000</td>
<td>0.7%</td>
<td>774,000</td>
<td>2.6%</td>
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<tr>
<td>2010 est.</td>
<td>320,000</td>
<td>1.0%</td>
<td>1,094,000</td>
<td>3.6%</td>
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<tr>
<td>2011 plan</td>
<td>391,000</td>
<td>1.25%</td>
<td>1,485,000</td>
<td>4.8%</td>
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<tr>
<td>2012 proj.</td>
<td>533,000</td>
<td>1.75%</td>
<td>2,018,000</td>
<td>6.6%</td>
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</tbody>
</table>

*Net savings -- after MER adjustments*
## Program Results – Cost Effectiveness

<table>
<thead>
<tr>
<th>Year</th>
<th>$/LT kWh</th>
<th>TRC</th>
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<tbody>
<tr>
<td>2005</td>
<td>$0.027</td>
<td>1.9</td>
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<tr>
<td>2006</td>
<td>$0.017</td>
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<td>2007</td>
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<td>2008</td>
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<tr>
<td>2009</td>
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<td>2010 est.</td>
<td>$0.014</td>
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<td>2011 plan.</td>
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<tr>
<td>2012 proj.</td>
<td>$0.022*</td>
<td>2.0*</td>
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* Preliminary estimate
Program Results – Summary

• Program savings continue to increase each year

• After start-up, program costs have declined and cost effectiveness has gone up through 2008

• Since 2009, costs per MWh saved have gone up and cost effectiveness has declined slightly each year

• Trend of rising costs per unit saved and declining cost effectiveness expected to continue as new programs are introduced each year to reach goals

• Programs still cost effective and lowest cost resource
New Since Last Year

1. **New Programs**
   - Home Performance with ENERGY STAR
   - Appliance recycling
   - Pool pumps and timers
   - 2nd tier New Construction level

2. **Financing options**
   - Small business, schools, and gov’t. accounts
   - Residential

3. **ARRA Coordination**
   - Energize Phoenix project
   - Leveraging with other city projects
Home Performance with ENERGY STAR

- Program approved in January 2010; launched in March
- Comprehensive whole house check-up for $99
  - Direct install measures: CFLs, faucet aerators, shower head
- Additional incentives available up to $1,000 for air and duct sealing, insulation, shade screens
- Check-up done by local BPI contractors; $200 incentive
  - Over 70 contractors participating in program
- Goal = 1,000 check-ups in 2010; over 1,600 completed
- 40% conversion rate to follow-up efficiency work done
- Very fast start to program – high hopes for future!
Appliance Recycling

• Program approved in Dec. 2009; launched in Feb. 2010
• Customers can have old refrigerator or freezer removed from home and get paid $30
  – Must be between 10 and 30 cubic feet and working
• Customers can save $100/yr. in electric costs
• 95% of materials recycled in local Phoenix facility
• Program administered by JACO
• Goal = 9,500 units in 2010; nearly 6,500 units recycled through October
• Strong Fall campaign to meet goal for year
Pool Pumps and Timers

• Program approved in January; launched in April
• Rebates for equipment purchased at retail stores:
  – Variable speed pumps $200
  – Dual speed pumps $100
  – Seasonal timers $ 75
• 165 retail locations participating
• Extensive outreach & training to retailers during summer
• Customers can save 80% of pool’s energy costs
• Goal = 2,000 pumps and 1,500 timers in 2010; actual rebates paid have been well below budget so far; expect more volume in 2011
2nd Tier New Construction

- Part of ENERGY STAR New Construction Program
- 2nd tier approved in March; launched in April
- 30% energy savings over standard built home
- Incentives to builders:
  - 1st tier (15% savings) $400
  - 2nd tier (30% savings) $1,000
  - Solar (additional incentive) $1,000
- Over 4,000 lots committed to be built to ENERGY STAR standards so far in 2010;
  - 48% tier 1 and 52% tier 2
- New home market down; ENERGY STAR market share up
Financing Options

Non-Residential
• Approved in January 2010; launched in May
• 3rd party financing with local AZ bank
• Bank provides capital, APS put up reserve account, program covers portion of default costs
• Below market interest rate
• Slow to gain awareness and volume of loans so far

Residential
• Approved in July 2010; will launch in December
• Similar structure to Non-Residential loans
• For approved measures through Home Performance Program
ARRA Coordination

- City of Phoenix “Energize Phoenix” Project
  - $25 million federal economic stimulus grant to improve energy efficiency of homes and businesses
  - Eligible customers along 10 mile light-rail corridor
  - City leverages existing APS EE program incentives and adds additional incentives
  - Program launched on October 26th; full effect in 2011/12
  - APS expects additional boost to program participation

- City of Avondale Cooperative Program
  - Similar use of federal stimulus grant to increase APS program incentives for energy efficiency actions taken

- APS did not receive any direct ARRA funding for energy efficiency
1. Energy Efficiency Standard in Arizona
   - Description
   - Savings levels

2. Program changes for 2011
   - DSM Implementation Plan
Energy Efficiency Standard in AZ

- Under development for past 2 years
- Approved by ACC in July 2010
  - Cumulative savings by 2020 equivalent to 22% of previous year retail sales
  - Demand response energy allowed to count up to 2%
  - Historical energy savings allowed to count up to 4%
  - Partial credit for savings due to increased building codes
  - No provision for treatment of unrecovered fixed costs
- Followed by policy statement from Commission supportive of need for decoupling; utilities to ask for lost revenue recovery in next rate case
- EE Standard puts AZ among top-tier states for energy savings from EE programs over the next decade
Energy Efficiency Standard

Statewide EE Standard approved by Commission in July 2010; Approved by State Attorney General on October 29; effective 1/1/11

Annual Energy Savings as a % of Retail Sales
2011 DSM Implementation Plan

• Filed June-August of 2010; pending approval
• Proposed program enhancements:
  Residential
  – Behavioral conservation pilot program
  – Multi-family program
  – Shade tree program
  – HVAC diagnostic testing measure
  Business
  – Raising customer caps and % of incremental cost caps
  – Expanding direct install to larger customers
  – Expanding financing to all eligible customers
  – New prescriptive measures (Controls, lighting, HVAC, refrigeration, building envelope, motor rewind, etc.)
  – Bid for efficiency
Summary

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• Many lessons learned …
  • Maximize savings from lighting while you can, look to introduce new lighting technology
  • Go beyond rebates for equipment – behavioral, operational
  • Larger long-term potential for C&I energy savings
  • M&V is an art, make sure it is fair and balanced
  • Continue to market, educate, and finance
  • Be realistic with regulators about increasing program costs over time
  • Live for the present, plan for the future – to meet goals
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• What happens in Vegas … also happens in Arizona!