



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

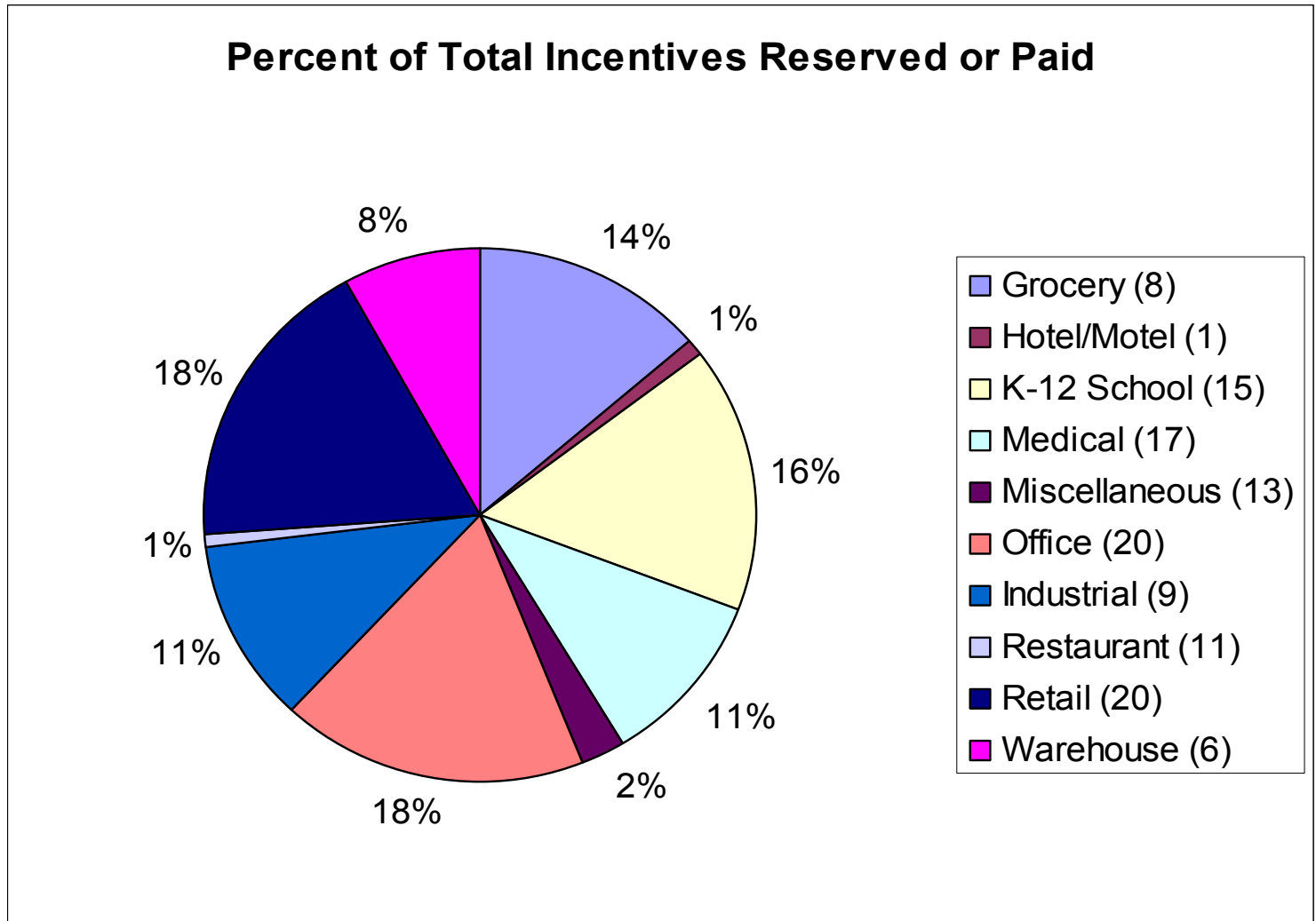
- Building Operator Training (BOT) is subsidized in a cooperative effort with the Electric League of Arizona (ELA) to encourage energy-efficient building operating & maintenance practices
- Energy Information Services will be offered in the near future. This program will provide a web-based energy information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

Customer Participation Levels

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

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



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