

Arizona Public Service Co. DSM Update



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Presented to SWEEP Workshop
November 9, 2009

Topics – as requested

1. Program Results

- Spending
- Savings
- Cost effectiveness

2. Recent Program Developments

- Residential New Construction program expansion
- Residential HVAC program modification
- Solutions for Business targeting opportunity

3. ARRA Activities

4. Future Program Changes

- Rate case settlement
- New programs/measures for 2010
- Proposed EE Standard in AZ

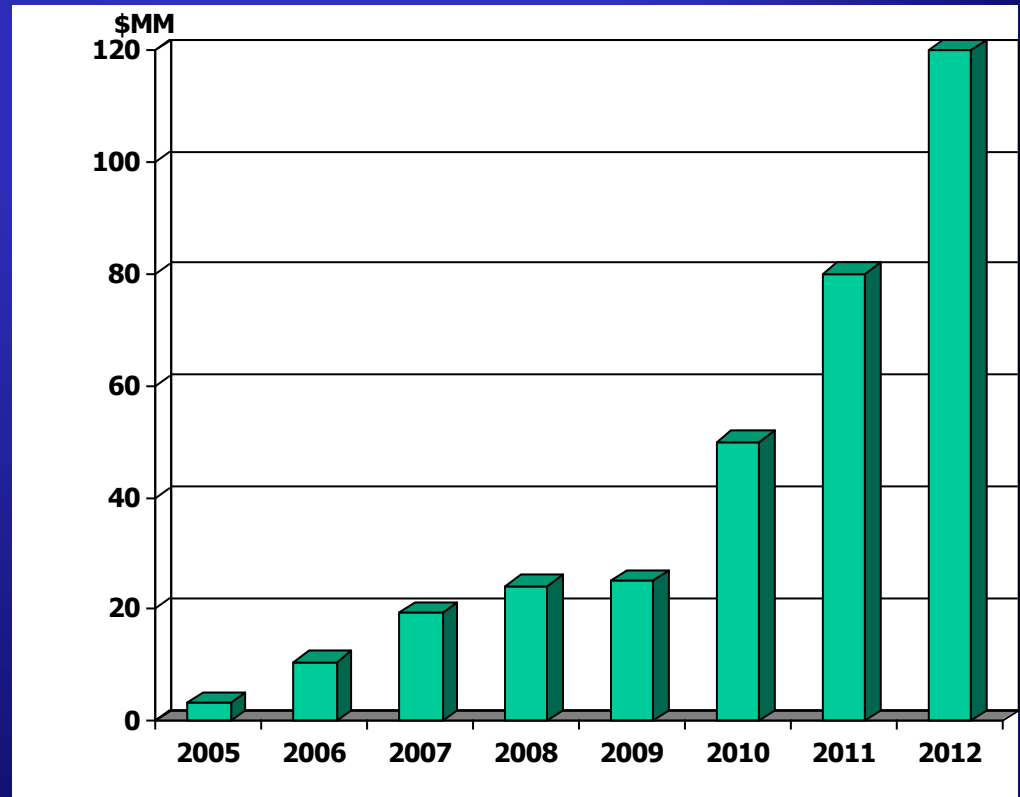


Energy Efficiency

Program Results -- Spending

(\$MM) including Performance Incentive

	<u>Annual Spending</u>
2005	\$ 3.2
2006	\$ 10.6
2007	\$ 19.4
2008	\$ 24.2
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2009 est.	\$ 25.0
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2010 proj.	\$ 49.9
2011 proj.	\$ 80.0*
2012 proj.	\$120.0*



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* Preliminary estimate

Program Results – Savings* (MWh)

	<u>Annual Savings</u>	<u>% of Sales</u>	<u>Cumulative Savings</u>	<u>% of Sales</u>
2005	19,000	0.1%		
2006	82,000	0.3%	101,000	0.4%
2007	209,000	0.7%	310,000	1.1%
2008	255,000	0.8%	565,000	1.9%
2009 est.	230,000	0.8%	795,000	2.7%
2010 proj.	320,000	1.0%	1,115,000	3.7%
2011 proj.	400,000	1.25%	1,515,000	4.9%
2012 proj.	490,000	1.5%	2,005,000	6.4%



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* After MER adjustments

Program Results – Cost Effectiveness

	<u>\$/LT kWh</u>	<u>TRC</u>
2005	\$0.027	1.9
2006	\$0.017	2.2
2007	\$0.010	2.8
2008	\$0.009	3.0
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2009 est.	\$0.011	2.5
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2010 proj.	\$0.014	2.6
2011 proj.	\$0.017*	?
2012 proj.	\$0.022*	?



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* Preliminary estimate

Program Results – Summary

- Programs have ramped up rapidly in past 4 years
- After start-up, programs have been extremely cost effective
- Shifting from \$ spending target to MWh savings target, beginning in 2010
- Programs to expand even more rapidly in next 3 years
- Delivered cost of programs expected to rise as “low hanging fruit” (CFLs) dries up and goals increase



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Recent Program Developments

A. Residential New Construction program expansion

- ENERGY STAR Homes and Solar

B. Residential HVAC program modification

- Quality Installation and equipment rebates

C. Solutions for Business targeting opportunity

- Pump test and repair initiative



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ENERGY STAR Homes and Solar

- Kicked off to builders in April 2009
- Requires builders to meet ENERGY STAR efficiency requirement (HERS=85) to get solar rebates
- Promotes communities where all homes are “solar ready” and at least 50% of homes include solar PV or solar hot water when built
- Rebates to builder:
 - ENERGY STAR only \$400 / home
 - Solar ready + \$100
 - Both solar PV and solar water heat + \$900
- Currently, two builders participating
 - Shea Homes (~130 lots) -- PV systems on all homes
 - Monarch Homes (~25 lots) -- PV & water on all homes
- Creates path to Net Zero Energy homes



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Residential HVAC Program

- Program provides rebates for AC equipment, Quality Installation, Duct Test & Repair
- 2008 program evaluation raised concerns about cost effectiveness
- Two major program changes approved in 2009 based on evaluation results and contractor input
- April 2009 changes:
 - Changed equipment rebate amounts and required quality installation for all equipment (including 13 SEER)
 - Only “Qualified Contractors” could offer equipment rebates
- October 2009 changes:
 - Modified Qualified Contractor requirements to allow flexibility in sources of training and reduce cost to contractors
- Changes working → added 80 contractors this year; rebate volumes at 800-1,000 per month; program cost effective
- Duct Test & Repair rebates very popular; 150 per month this year, very cost effective, good customer and contractor feedback



Pump Test and Repair Initiative

- Solutions for Business program: prescriptive and custom incentives popular for lighting, cooling, and refrigeration
- Large water pumping applications – significant opportunity for efficiency improvements, but little participation to date
- Began initiative in June to identify customers with high energy use from pumps for irrigation, water pumping, waste water treatment
- Targeted municipalities, golf courses, large industrials
- Program features:
 - Free testing
 - Customer implements recommendations and repair/replace cost is partially offset by program incentives
 - Significant energy and cost savings to customer
- Currently 4 large customers doing testing; potential to contribute 5-10% toward annual portfolio savings goal in 2010



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ARRA Activities

- Received ACC clarification that stimulus funds could supplement program incentives up to 100% of incremental cost of efficiency projects
- Working with customers on identifying high potential energy saving projects for use of ARRA dollars
- Hosted 2 workshops on how customers can use ARRA funding and leverage DSM programs
 - Cities and towns (May 6) – EECEBG \$
 - School districts (Oct. 1) – SEP \$
- Currently assisting cities and towns with grant applications to obtain EECEBG competitive grants; looking for 5:1 leverage for funds



Future Program Changes

- Rate case settlement
- Program portfolio for 2010
- Proposed Energy Efficiency Standard in Arizona



Energy Efficiency

Rate Case Settlement

- Requires increased Energy Efficiency opportunities for customers to manage their bills
- Sets MWh savings targets; rather than spending targets
- Establishes EE savings goals for 2010-2012 as a % of total energy resources

Year	% of Total Energy Resources	Estimated Goal
2010	1.00 %	320,000 MWh
2011	1.25 %	400,000 MWh
2012	1.50 %	490,000 MWh

- Requires filing of annual EE Implementation Plan
- Creates specific new energy efficiency programs / measures for 2010, once approved in Implementation Plan
- Decision expected in December 2009

2010 Implementation Plan

New programs / measures proposed:

■ Residential

- ENERGY STAR Plus homes (HERS = 70)
- Pool pumps and timer rebates
- Appliance recycling
- Home Performance whole house energy audits
 - Insulation and air sealing
 - Shade screens
 - Direct install of CFLs and low flow water fixtures
- Low income program enhancements

■ Business

- New Construction “Savings by Design” whole building approach
- Customer financing option
- Self-Direction for large customers



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Energy Efficiency Standard

- Workshops held in April / May
- ACC Staff proposed rules issued October 29
 - Cumulative savings by 2020 equivalent to 22% of 2005 retail sales
 - Demand response energy allowed to count up to 2%
 - Historical energy savings allowed to count up to 3%
 - No provision for changes to codes and standards
 - No provision for treatment of unrecovered fixed costs
- Would put AZ among top-tier states for energy savings from EE programs
- Parties commenting this week; rulemaking expected in 2010



"Not Too Technical"

Summary

- Lots of regulatory action expected soon
- Resulting in lots of new programs and measures
- Producing lots of exciting opportunities for APS customers to manage their electric bills through Energy Efficiency
- Creating lots of happy customers and lots of praise from SWEEP!!



Energy Efficiency