

# APS DSM Program Overview

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*National Conference on*  
*Energy Efficiency as a Resource***

Wayne Dobberpuhl  
Program Manager – Solutions for Business

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# DSM Overview

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**1. About APS**

**2. Energy Efficiency Standard in Arizona**

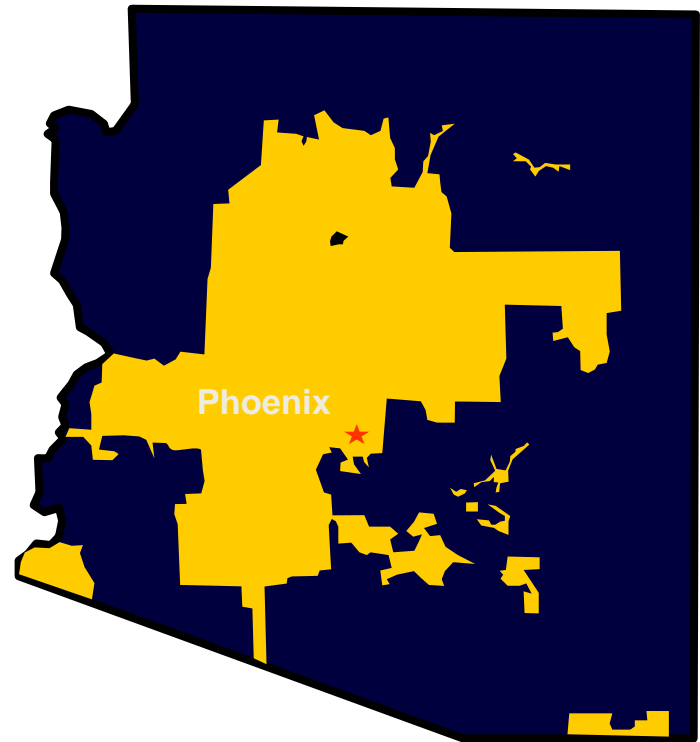
**3. Program Results to Date**

**4. Strategies and Tactics**

**5. Challenges**

# About APS

- Electric Service in 11 of 15 Arizona Counties
- 5<sup>th</sup> Largest Service Territory in US & over 1.1 M customers
- Arizona is one of the fastest growing states in the nation
- Energy demand will increase almost 50% in 20 yrs
- Our customer growth has been 3 times U.S. Average
- 5,039 miles of transmission lines in APS territory

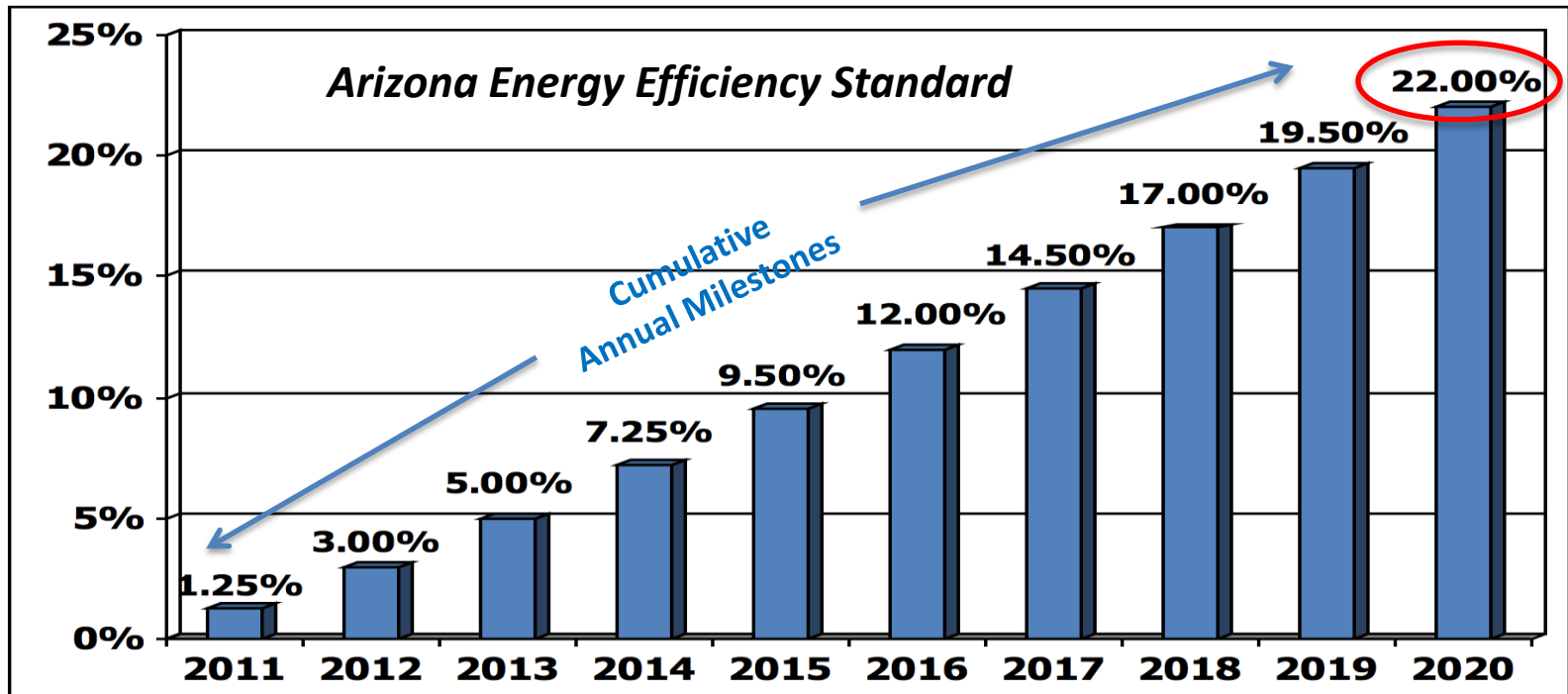


 APS Retail Service Territory

# Energy Efficiency Standard (EES) in AZ

## Energy Efficiency Standard in Arizona (effective Jan. 1, 2011)

- "An affected utility shall, through cost-effective DSM energy efficiency programs, achieve by 2020 cumulative annual energy savings equivalent to at least 22% of the affected utility's retail electric energy sales for the prior calendar year (2019)."

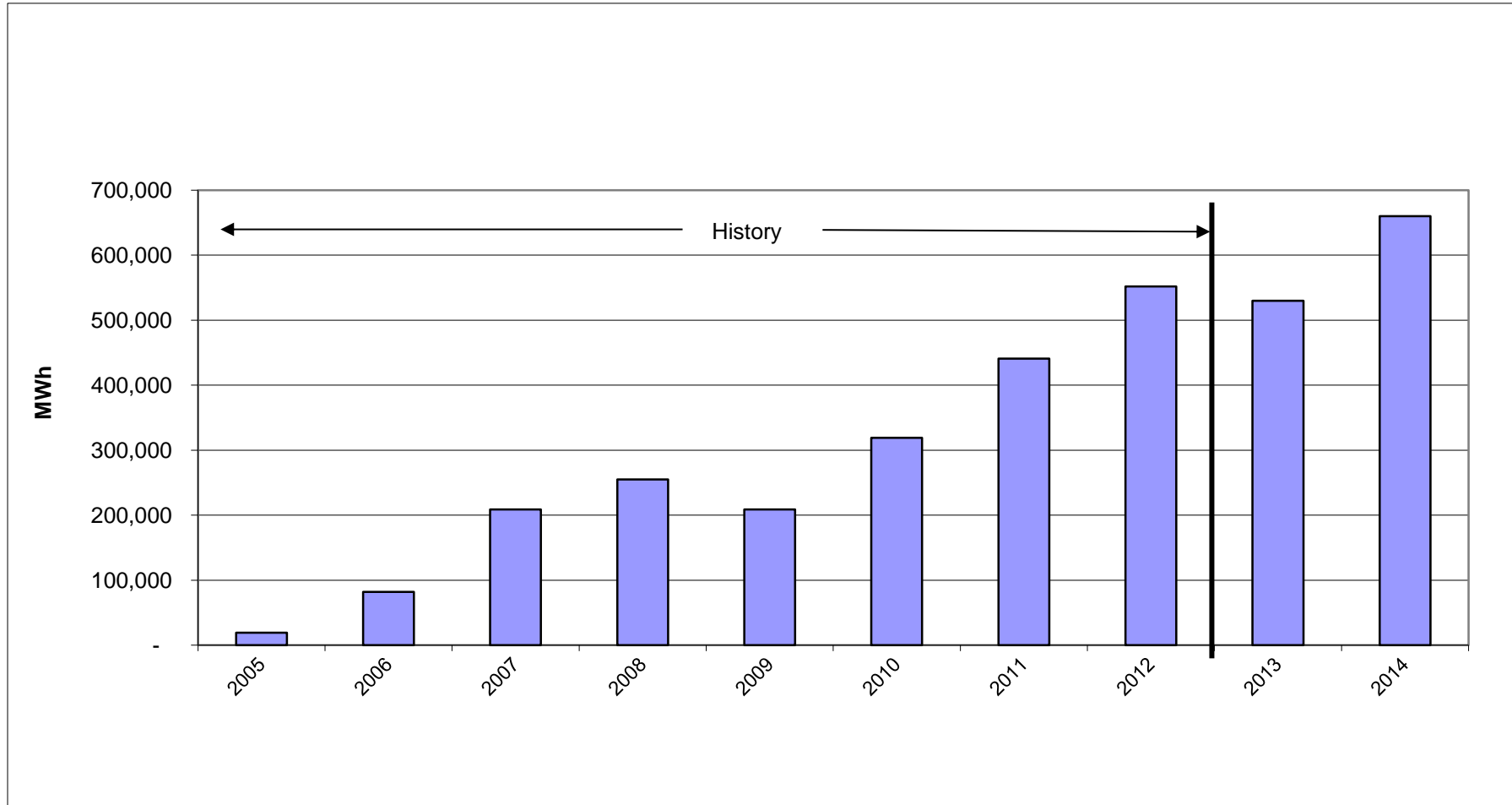


# DSM Program Results to Date


	<u>ANNUAL</u>		<u>CUMULATIVE</u>		<u>Energy Efficiency Standard</u>	
	<u>MWh Savings</u>	<u>% of Sales</u>	<u>MWh Savings</u>	<u>% of Sales</u>	<u>EE Goal</u>	<u>Actual</u>
<b>2005</b>	19,000	0.1%	19,000	0.1%		
<b>2006</b>	82,000	0.3%	101,000	0.4%		
<b>2007</b>	209,000	0.7%	310,000	1.1%		
<b>2008</b>	255,000	0.8%	565,000	1.9%		
<b>2009</b>	209,000	0.7%	774,000	2.6%		
<b>2010</b>	319,000	1.0%	1,093,000	3.6%		
<b>2011</b>	441,000	1.4%	1,534,000	5.0%	1.25%	1.4%
<b>2012</b>	552,000	1.8%	2,086,000	6.8%	3.00%	3.2%
<b>2013*</b>	522,000	1.8%	2,608,000	8.6%	5.00%	5.0%

\*current plan

# APS DSM Savings Timeline



# 2012 EE Programs

	Program	Participation	2012 Savings (MWHs)
RESIDENTIAL	Consumer Products	2.7 MM bulbs, 3,850 pumps	142,774 
	Existing Homes -- HVAC	9,300 AC; 2,835 ducts; 1,810 diagnostics	13,941
	Existing Homes – HPerf.	7,350 home audits	8,128
	New Homes	2,700 homes	14,002
	Appliance Recycling	9,400 fridges/freezers	11,873
	Low Income	852 homes	2,503
	Conservation Behavior	77,900 households	23,543
	Multi-Family	5,700 apartments	5,380
	Shade Trees	5,200 trees	477
NON-RESIDENTIAL	Large Existing Facilities	1,850 projects	192,263
	New Construction	93 buildings	31,905
	Small Business	1,271 projects	25,595
	Schools	231 projects/72 districts	24,523
	Codes and Standards	Dual speed pool pumps	2,332
	Demand Response	Critical Peak Pricing, Peak Solutions, TOU	52,400
	<b>TOTAL</b>	<b>~ 400,000 customers</b>	<b>551,639 MWh saved</b>

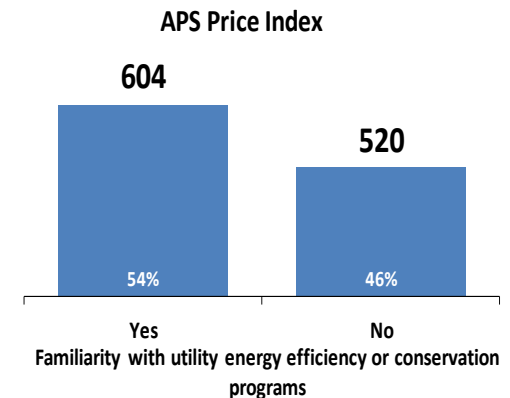
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# APS Customer Satisfaction

- APS Customer Satisfaction Index ranked in top 5 position among large IOU electric utilities nationally in past 4 years.

(Source: J.D. Power & Associates Overall Customer Satisfaction Index – Res and Non-Res customers)

- Customers familiar with APS energy savings program have higher price satisfaction index



- APS monitors customer satisfaction and experiences for each DSM program – overall satisfaction across all programs averages over 80% “very satisfied” ratings



# Strategies and Tactics

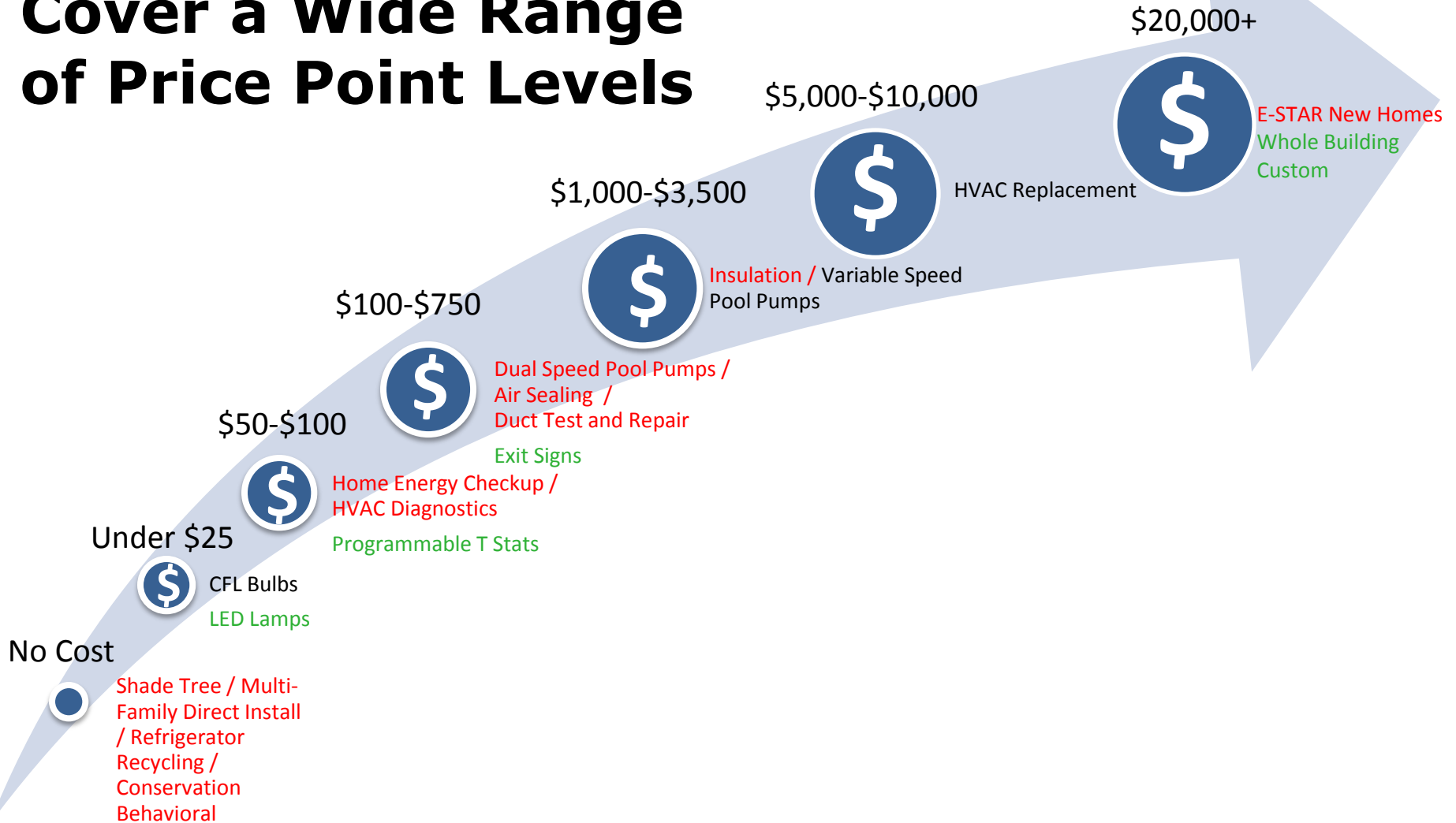
## How did we Ramp Up So Quickly?

- Assemble a strong utility team
- Use other utilities experience
- Programs open to a Wide Range of Customers
- Implementation and Evaluation Contractors
- Comprehensive List of Incentives
- More than Just Incentives – Trade Allies and Training

# DSM Contractors

- Implementation Contractors
  - KEMA
  - Ecova
  - Franklin Energy
  - Advanced Energy
  - Jaco
  - Automated Energy
  - Comverge
  - Lincus
  - O Power
  - Pivotal
  - Energy Savy
  - FSL
- Evaluation Contractors
  - Navigant
  - ODC

# EE Programs Cover a Wide Range of Price Point Levels



# Trade Allies

## Residential

- Pool Contractors – 420
- Home Builders - 62
- Lighting Retailers - 20
- Low Income Agencies - 10
- Home Performance - 70

## Non-Residential (Solutions for Business)

- HVAC Contractors
- Engineers and Architects
- Consultants
- Equipment Suppliers
- Total 276

# Technical Training

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**> 30 classes each year; over 1,200 attendees. Topics such as:**

- High efficiency motors
- Pumping
- Codes and Standards
- Building Energy Simulation
- Energy information service
- Retro-commissioning
- Certified Energy Managers (CEM)
- Building Envelope
- Residential HVAC
- Pool Pump Calibration
- Home Building Training

## Upcoming classes:

- Energy Studies – September 26
- Benchmarking with Energy Star – September 27
- Advanced Lighting Controls – October 17
- Building Management Systems -- November 20
- Window Science – January 2014

# DSM Challenges

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## Challenges

**2013 DSM Implementation Plan not yet approved**

**Ever increasing EE goals**

**Concern over rising cost to meet EE Standard**

**Impact of EE on Utility System**

**Thank You!**

**Questions?**