

# **DSM Program Update**

## **Arizona Public Service Co. (APS)**

November 21, 2013

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# Roadmap

1. Rear View
  - 2012/2013 Results
2. Unclear Road Conditions
  - Current Regulatory Picture
3. More MPG
  - Focus on Efficient Program Delivery
4. Road Ahead
  - Mountain Grades and Curves





# Rear View Mirror APS 2012 DSM Program Results

# Summary of 2012 Results

## Energy Savings

	Annual MWhs Saved	% of Retail Sales
2012 Goal	524,000	1.75%
2012 Achieved	551,639	1.84%
Achieved 105% of goal, +27,639 MWhs over goal		

## Budget/Spending

2012 ACC Approved DSM Budget	\$77.0 M
2012 DSM Spending (includes all DR/EE portfolio costs)	\$73.5 M
Balance (included in future true-up)	+\$3.5 M

# 2012 Program Results

	Program	Participation	2012 Savings (MWHs)
RESIDENTIAL EE	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
	Home Performance	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-RES. EE	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>551,639</b>



# APS 2013 DSM Program Projected Results (Est.)



# Estimated 2013 Results

## Energy Savings

	Annual MWhs Saved	% of Retail Sales
2013 Goal (cumulative)	530,500	5% (cumulative since 2011)
2013 Achieved (Est.)	532,000-538,000	

## Budget/Spending

2013 ACC Approved DSM Budget	?
2013 DSM Spending Est. (includes all DR/EE portfolio costs)	\$68 MM

→ On target to slightly exceed savings goal; at less than 2012 spending



# Unclear Road Conditions? Current Regulatory Picture

# Regulatory Roadmap

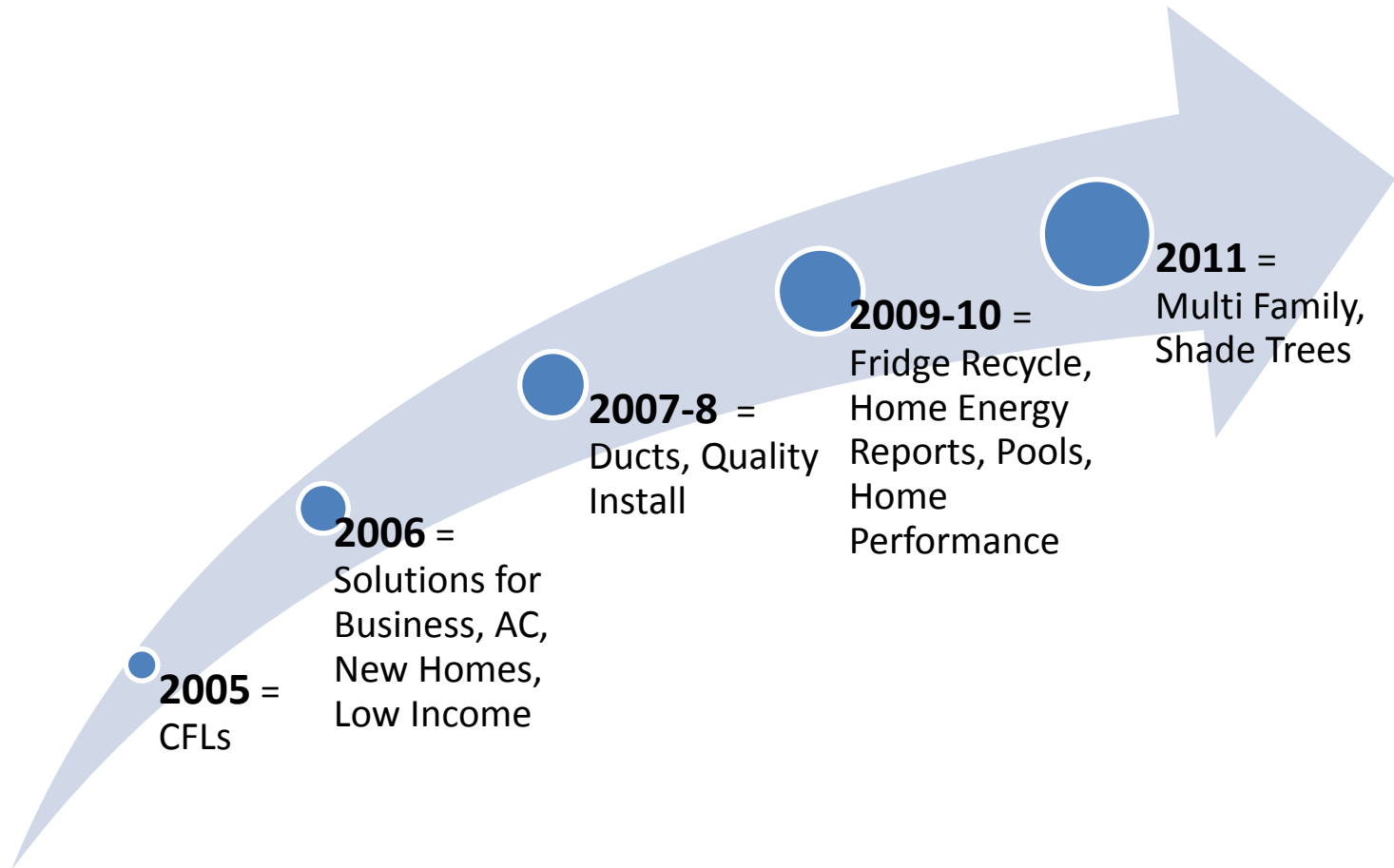
- APS Filed 2013 Plan on 6/1/12
- ACC Staff Recommended Order Issued 10/30/13
- Currently Awaiting ACC Open Meeting to Approve 2013 Plan
- Recommends:
  - “Status Quo” = No new programs or measures
  - Approx \$10 million budget reduction
  - No new plans filed until further notice
- Consequences:
  - Challenge to meet compliance with increasing goals and decreasing budget
  - On target for compliance in 2013 but 2014 will be tough to meet





# More MPG Efficient Program Delivery

# Building the APS EE Program Portfolio 2005-2011



# Home Performance – New Audit Tool

- Integrates on-line and in-home audits
  - Improves customer experience
  - Streamlines program delivery
- Reduced administrative burden for contractors
- Better tracking and reporting
- Improved software platform can help us achieve greater savings from each participant





# New Homes – Program Tracking Database

- Cloud based database
- Tracks detailed data about participating homes for
  - Better quality reporting
  - Better program tracking
  - Streamlined process with program partners
  - Better information and data sharing
- Information transfers can help Realtors, appraisers, and lenders value energy efficiency
- By helping builders get more value for their homes, we could lower APS incentives without losing participation



# Pools Program

- Process Evaluation
  - Focus Group with Participating and Non-Participating Pool Professionals
  - Identified their challenges with the program
  - As a result we streamlined forms and data entry process
- Impact Evaluation
  - Identified the importance of proper pump calibration to maximize savings
  - As a result, we modified program training and created new tools to help participating contractors

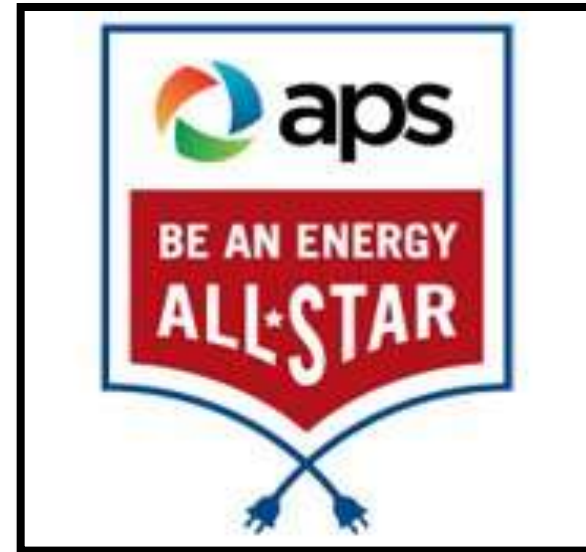
## Variable-Speed Pool Pump

### At-a-Glance Calibration Tips

- 1. CALCULATE THE POOL VOLUME IN GALLONS**  
Keep in mind standard and irregular shaped pools require different calculations.
- 2. ESTABLISH A TURN-OVER RATE**  
The formula is  $\text{Pool Volume (Gal)} / \text{Hrs. to Turnover} / 60 = \text{GPM}$ .
- 3. ESTABLISH THE MAXIMUM FLOW RATE FOR THE EXISTING PLUMBING**  
Remember not to overwork the existing plumbing; carefully consider max flow rates.
- 4. CALCULATE SYSTEM RESISTANCE TO FLOW**  
The formula for Total Dynamic Head (TDH) is  
 $\text{Vacuum} \times 1.13 = \text{feet of head}$   
 $\text{Pressure} \times 2.31 = \text{feet of head}$   
 $\text{Vacuum feet of head} + \text{pressure feet of head} = \text{Total Dynamic Head}$
- 5. MEASURE WATTS, AMPS, AND VOLTAGE FOR THE FILTRATION AND CLEANING CYCLES**  
Remember, for an accurate watt draw measurement: connect the watt meter around one leg of the load side wire connected to the pump.
- 6. SET THE ESTABLISHED SPEEDS AND RUNTIMES**  
For maximum savings, run the customer's pump during off-peak times.
- 7. COMPLETE THE CALIBRATION FORM**  
For APS projects, remember to fill out all fields on the calibration form (including customer's signature and pool professional's signature).

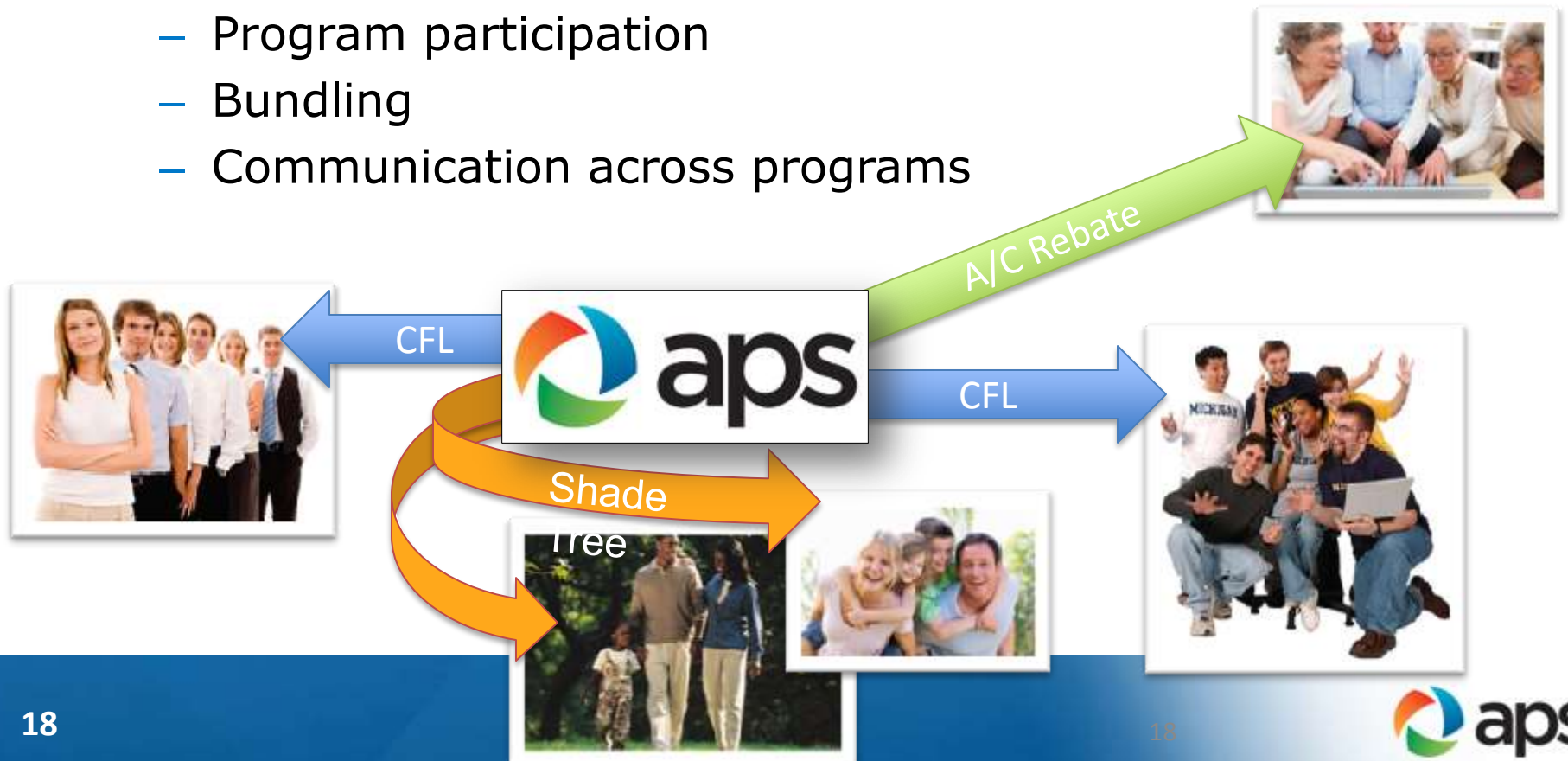
# Cross Program Initiatives

- Sweepstakes
- Events/Sports
- Co-promotions
- Call Center
- Business Offices
- Social Media



# Segmentation and Direct Marketing

- Improve efficiency by targeting those most likely to participate in each program
- Identify opportunities for:
  - Program participation
  - Bundling
  - Communication across programs



# We are currently working on....

- Optimizing incentives
- Leveraging trade ally partnerships
- Informing real estate transactions
- Using social media
- Focusing on codes and standards and other low cost savings opportunities



# Road Ahead..... Curves and Mountain Grades



# Managing with Lots of Uncertainty

- Budget**

- Managing programs within 2012 budgets...does not track current market conditions

- Programs**

- No new programs or technologies being approved (LEDs for residential?)
- How can we get more from current programs?

- Issues to Be Addressed**

- Approval of 2013 plan
- Cost effectiveness workshops
- Performance incentives
- Issues we have asked for:
  - New measures/technologies
  - Codes/standards – 50% credit
  - APS system efficiencies



# Summary

- Great program results to date in 2013
- On track to exceed savings goals in 2013
- Significant regulatory issues to be addressed
- Concern about ability to achieve EE goals in 2014



# Questions?



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