ORIGINAL NEW APPLICATION

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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF ITS 2013 DEMAND SIDE MANAGEMENT IMPLEMENTATION PLAN	DOCKET NO. E-01345A-12-0224 **APPLICATION FOR APPROVAL OF ARIZONA PUBLIC SERVICE COMPANY'S 2013 DEMAND SIDE MANAGEMENT IMPLEMENTATION PLAN AND REQUEST FOR RELIEF FROM A.A.C. R14-2-2404(E) AND (H)**

I. INTRODUCTION.

Arizona Public Service Company ("APS") submits for the Commission's review and approval its 2013 Demand Side Management Implementation Plan ("Plan") as required by Arizona Administration Code R14-2-2405 through 2407. The Plan, which APS filed concurrently with this Application, outlines APS's plans to continue compliance with the Electric Energy Efficiency Standards A.A.C. R14-2-2401 *et seq.* ("EE Rules").

APS proposes to continue all cost-effective previously approved energy efficiency ("EE") and demand response ("DR") programs with certain minor

enhancements outlined below and discussed more fully in the Plan. In addition, APS proposes a Resource Savings Initiative through which it will investigate and quantify the impacts of EE improvements to APS's facilities, generation, transmission and delivery systems. APS intends to count facilities and generation improvements toward meeting its EE goals beginning in 2014 and requests relief from A.A.C. R14-2-2404(H) to allow it to also count delivery system improvements.

Lastly, APS requests relief from the thirty-three percent cap in A.A.C. R14-2-2404(E) to allow it to claim at least fifty percent of the savings from codes and standards initiatives. This will reduce the current disincentive under the EE Rules for APS to support such codes and standards.

II. APS'S EE SAVINGS GOAL.

Under the EE Rules, APS must achieve cumulative energy savings equal to twenty-two percent of its 2019 retail sales by the end of calendar year 2020. *See* A.A.C. R14-2-2404. In 2013, the EE Rules require APS to achieve cumulative energy savings equal to 5 percent of its 2012 retail energy sales, which is an estimated 549,000[1] megawatt hours ("MWh"). *See* Plan at Table 1 on page 2. The Plan outlines the programs and strategies APS will use to achieve these estimated savings.

III. APS PROPOSES ONLY MINOR ENHANCEMENTS TO ITS EE PROGRAMS AND NO CHANGES TO ITS DR PROGRAMS.

APS proposes to continue all previously approved EE and DR programs provided that they remain cost-effective using Staff's societal cost test methodology and inputs. Commission Decision No. 73089, requires APS to "use the same input values and methodology as Staff for calculating the present value benefits and costs to determine benefit-cost ratios." *See* Commission Decision No. 73089 at 58 (April 4, 2012). Based upon review of its approved programs and their projected cost-effectiveness, APS proposes the enhancements outlined in the chart below to its portfolio of EE programs.

[1] The goal includes savings of 495,000 MWh from EE programs and 54,000 MWh from DR programs.

If further program enhancements are needed after APS confirms its cost benefit analyses using Staff's methodology and inputs, APS will file these enhancements in the supplement to its Plan.

2013 Proposed EE Program Enhancements

Residential Consumer Products	• Add new measure -- "2x" incandescent light bulbs • Add new measure -- LED light bulbs
Residential Existing Homes • Duct Test and Repair	• Split existing duct test and repair rebate program into two Tiers. Tier 1 is a prescriptive duct repair rebate for $200 and Tier 2 remains the same as the existing test and repair process but the maximum rebate goes up to $400. • Reduce rebate amount for heating ventilation and air conditioning quality installation from $270 to $245.
Residential Home Performance with ENERGY STAR®	• Discontinue the shade screen rebate. • Discontinue the direct install faucet aerators. • Add direct install smart strips. • Postpone implementation of performance based rebates. • Split existing duct sealing rebate into two tiers to align with Residential Existing Homes program change.
Residential Appliance Recycling / Non-Residential	• Increase the limit to a maximum of 50 refrigerator and/or freezer units per meter per year for multi-family/lodging facilities. • Increase rebate level from $30 to $50.
Non-Residential Solutions for Business - New Construction	• Reduce whole building incentives for both building owners and the design team.
Other Modifications • Codes and Standards Initiative • Resource Savings Initiative	• Increase the cap on savings that can count toward the standard from 33% to 50%. • Investigate savings impacts of improvements to APS system resources including generation improvements, facilities upgrades and delivery system improvements.

As discussed in the Plan, these changes are necessary to adapt to market conditions and ensure that the programs remain cost-effective. APS does not propose any changes to its DR programs.

IV. OTHER EE INITIATIVES.

A. APS Requests to Increase the Cap on Claimed Savings from Codes and Standards Initiative from 33% to 50%.

In Decision No. 73089, the Commission agreed that APS could count toward meeting its EE savings goal "up to one third of any energy savings quantified and reported through a measurement and evaluation study . . . and resulting from improved energy efficiency appliance standards." *See* Commission Decision No. 73089 at 56; *see also* A.A.C. R14-2-2404(E). APS asks the Commission to increase the cap on energy savings from codes and standards from thirty-three percent to at least fifty percent.

Substantially increasing (or eventually eliminating) the cap is critical. The current cap discourages APS from supporting updates and improvements to codes and standards because APS's potential to claim more savings is artificially limited by the cap. Conversely, increasing or eliminating the cap creates an incentive for APS to support more rigorous updates to codes and standards. Codes and standards savings are extremely cost-effective and can result in long term energy savings. Thus, it is in the best interest of APS customers for the Commission to exercise its discretion under A.A.C. R14-2-2419 and find good cause exists to relieve APS from the thirty-three percent cap contained in R14-2-2404(E) and allow APS to count at least fifty percent of the savings from improved codes and standards toward meeting its energy efficiency savings goal.

B. APS Resource Savings Initiative.

APS proposes a Resource Savings Initiative that will allow it to count toward meeting APS's EE goal efficiency improvements to APS's facilities, generation, and delivery systems. These improvements result in measurable EE savings that are just as real and valuable as any savings that the Company can achieve with customer funded EE incentives. APS knows these types of savings are beneficial to APS customers because

they reduce APS's cost of service and ultimately help APS achieve the EE savings goal at a lower cost to all our customers.

1. Generation and Facilities Savings.

APS is currently evaluating the savings impacts of various generation improvements and facilities upgrades to APS's system. Generation system improvements being evaluated include, but are not limited to, the installation of high-efficiency motors and variable speed drives. Facilities upgrades include the installation of energy efficiency upgrades at APS facilities. The EE Rules do not prohibit APS from counting generation improvements or facilities upgrades toward meeting the EE goal.[2] Thus, APS's 2014 DSM Implementation Plan will count toward compliance with its EE savings goal savings from generation and facilities improvements.

2. Delivery System Savings.

APS is also currently evaluating the savings impacts of various delivery system (transmission and distribution) improvements to APS's system. Delivery system improvements being evaluated include, but are not limited to the following: system reconductoring, high efficiency transformer upgrades, and integrated volt/VAR controls.

A.A.C. R14-2-2404(H) precludes the counting of utility "delivery system" savings toward meeting the cumulative energy savings goals. Utility delivery system savings includes "infrastructure through which an affected utility transmits and then distributes electrical energy to its customers." *See* A.A.C. R14-2-2401(8). Delivery system savings, however, provide measurable and cost-effective energy savings that benefit all APS customers and do not result in any unrecovered fixed costs. Accordingly, APS requests that the Commission exercise its discretion under A.A.C. R14-2-2419 and find good cause exists to relieve APS from the prohibition on counting

[2] APS is allowed to count savings resulting from improvements to generation and facilities infrastructure because these saving do not fall within the definition of "delivery system" and therefore are not prohibited by A.A.C. R14-2-2404(H).

energy delivery savings contained in R14-2-2404(H) and allow APS to count these very real and valuable savings toward meeting future EE goals.

V. THE 2013 PLAN BUDGET.

As noted above, in April of 2012, the Commission ordered APS to use Staff's methodology to determine the cost-effectiveness and benefits of its EE programs. In addition, the Commission ordered APS to include measurement, evaluation and research costs and the estimated costs of any performance incentive in its cost-effectiveness analysis. *See* Commission Decision No. 73089 at 59. More recently, in approving the Settlement of APS's 2010 Test Year Rate Case, the Commission ordered that the EE performance incentive "be reviewed, established and approved on annual or periodic basis" and that "[APS] shall develop with the involvement of Staff and interested parties, and file a revised Performance Incentive for Commission review in the 2013 Energy Efficiency Implementation Plan proceeding." *See* Commission Decision No. 73183 at 47-48 (May 24, 2012). APS will supplement its Plan and submit a 2013 DSM budget once it completes its analyses and develops a revised performance incentive plan for Commission review.

APS held preliminary discussions regarding use of Staff's methodology and development of a revised performance incentive with Staff and stakeholders at a DSM collaborative meeting on May 21, 2013. APS has a follow-up meeting with Staff on June 6, 2012 to coordinate these activities and discuss how to proceed. As requested by the Commission during the Open Meeting approving APS's 2012 DSM Plan, APS will also provide supplemental analysis regarding the inclusion of unrecovered fixed costs in the cost-benefit analysis and the impact of exempting Freeport McMoran from the DSMAC and removing APS sales to Freeport McMoran from retail sales for purposes of measuring compliance with the EE Rules.

VI. THE 2013 DSMAC.

Based upon its analyses to date, APS anticipates that it will be able to meet its 2013 savings goal without increasing the DSMAC tariff for 2013. APS will file a proposed DSMAC tariff after it completes its analyses and finalizes a proposed DSM budget for 2013.

VII. CONCLUSION.

APS respectfully requests that the Commission approve its Plan as soon as possible after APS completes its supplemental filings discussed above, so that APS may have time to implement any approved measure changes as early as possible in 2013.

RESPECTFULLY SUBMITTED this 1st day of June, 2012.

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ORIGINAL and thirteen (13) copies of the foregoing filed this 1st day of June, 2012, with:

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Arizona Public Service Company

Demand Side Management Implementation Plan for 2013

June 1, 2012

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I. Introduction

By Arizona Corporation Commission ("Commission" or "ACC") rule[1], Arizona Public Service Company ("APS" or "Company") is expected to achieve cumulative energy savings of 22% of its retail sales with Energy Efficiency ("EE") and Demand Response ("DR") programs by 2020. APS's Demand Side Management Implementation Plan ("Plan")[2] outlines how APS intends to continue its compliance with the EE Rules and Commission Orders regarding EE and DR programs, consistent with A.A.C. R14-2-2405. The APS EE program portfolio includes a balanced mix of programs targeted to address APS's diverse customer segments and market opportunities to both Residential and Non-Residential customers. These programs are expected to produce cost effective energy consumption and demand savings in 2013 and in the long term. For 2013, APS intends to continue all previously approved and cost-effective programs, subject to certain minor enhancements discussed below.

Highlights of the Plan

- Continues existing EE and DR programs and does not seek approval of any new programs.
- Adds "2x" incandescent light bulbs[3] and Light Emitting Diode ("LED") light bulbs as new measures in the Residential Consumer Products program.
- Amends the duct test and repair measure in the Residential Existing Homes program to include two separate incentive tiers and revises incentives and products used in the Home Performance program.
- Modifies the Non-Residential New Construction program whole building incentive levels to reduce the budget impact and make incentives consistent with program incentive levels in other similar programs.
- Anticipates the 2013 Demand Side Management Adjustment Charge ("DSMAC") will be below the 2012 level.
- Commits to working with Commission Staff to use Staff's Societal Cost test input values and methodology to calculate net benefits and cost effectiveness of EE programs.
- Requests that the percent of energy savings attributable to codes and standards that APS may count toward meeting the energy savings goals increase from 33% to 50%.
- Requests that the impact of APS system improvements be counted toward EE savings.

APS anticipates that it will be able to continue its cost-effective programs and meet the cumulative 2013 energy savings goal of five percent of APS's 2012 retail energy sales (which is an estimated 549,000 megawatt hours ("MWh")) while lowering the DSMAC. The calculation of APS's estimated 2013 energy savings goal is shown in Table 1:

[1] A.A.C. R-14-2-2404.

[2] APS will be filing a supplement to this plan to address certain elements associated with cost effectiveness and Commissioner requests as discussed in Section IV of this Plan.

[3] "2x" incandescent bulbs use new technology to provide the same light quality and features of a traditional incandescent bulb while using half the energy and lasting twice as long.

Table 1
2013 DSM Energy Savings Goal Calculation

	Annual MWh
Forecasted 2012 Retail Sales[4]	30,279,893
Cumulative DSM MWh Goal (5% of 2012 Retail Sales)	1,514,000
Less credit for previous years' savings:	
Actual Savings in 2011	(441,000)
Estimated Savings in 2012	(524,000)
DSM Goal for 2013	**549,000**
DR Cumulative Contribution to DSM Goal (10% of DSM Goal)	151,000
Less credit for previous years' savings	
2011 Actual DR Contribution	(44,000)
2012 Estimated DR Contribution	(53,000)
DR Goal for 2013	**54,000**
EE Goal for 2013	**495,000**

The Plan is targeted to save an estimated first year 549,000 MWh of energy (rounded to the nearest 1,000 MWh), which is equivalent to 5% of retail sales forecasted for 2012 less 2011 actual EE savings and 2012 estimated EE savings. APS expects to achieve savings from EE programs of 495,000 MWh and 54,000 MWh from DR programs. Note that the actual goal to be achieved will be different than the estimated goal calculated above because it will be based on the actual measurement of retail sales in 2012, which can only be determined once the year is over.

The EE Rules require that the Company's 2013 Plan include a description of APS's compliance with the requirements of the EE Rules for the previous calendar year.[5] APS's EE program results for 2011 are fully described and documented in the Company's Demand Side Management Semi-Annual Progress Report, which APS filed with the Commission on March 1, 2012[6].

The Plan was developed and enhanced with input from the DSM Collaborative group whose members include EE experts and stakeholder representatives. Members of the DSM Collaborative include Commission Staff, the Residential Utility Consumer Office ("RUCO"), Southwest Energy Efficiency Project ("SWEEP"), Western Resource Advocates ("WRA"), the Department of Commerce Energy Office, Arizonans for Electric Choice and Competition ("AECC"), Arizona Community Action Association ("ACAA"), and others. APS discussed the Plan with the DSM Collaborative group prior to this filing.

[4] Projected Retail Sales based on APS's 2012 First Quarter Forecast, including 7.0% losses.
[5] A.A.C. R14-2-2405(B).
[6] Docket No. E-00000U-12-0068.

II. Energy Efficiency Portfolio

APS's EE program portfolio includes a balanced mix of programs targeted to address APS's diverse customer segments and market opportunities. The programs are designed to influence energy decisions by residential and non-residential customers and other market players through a combination of rebates and incentives for energy efficient products; services and improvements; technical assistance and training; and consumer education.

APS's EE program portfolio includes the following programs:

Residential Programs

(1) Consumer Products;
(2) Existing Homes HVAC;
(3) Home Performance with ENERGY STAR;
(4) Residential New Construction;
(5) Appliance Recycling;
(6) Low Income Weatherization;
(7) Conservation Behavior;
(8) Multi-Family Energy Efficiency; and
(9) Shade Trees.

Non-Residential Programs (Solutions for Business)

(1) Large Existing Facilities;
(2) New Construction and Renovation;
(3) Small Businesses;
(4) Schools; and
(5) Energy Information Services.

These EE programs are expected to produce cost effective long-term energy and demand savings and APS proposes to continue implementation of these EE programs in 2013 subject to the enhancements discussed below.

APS does not plan on adding any new EE programs in 2013. The proposed program enhancements are summarized in Table 2.

Table 2
2013 Proposed EE Program Enhancements

Residential Consumer Products	• Add new measure -- "2x" incandescent light bulbs • Add new measure -- LED light bulbs
Residential Existing Homes • Duct Test and Repair	• Split existing duct test and repair rebate program into two Tiers. Tier 1 is a prescriptive duct repair rebate for $200 and Tier 2 remains the same as the existing test and repair process but the maximum rebate goes up to $400. • Reduce rebate amount for heating ventilation and air conditioning quality installation from $270 to $245.
Residential Home Performance with ENERGY STAR®	• Discontinue the shade screen rebate. • Discontinue the direct install faucet aerators. • Add direct install smart strips. • Postpone implementation of performance based rebates. • Split existing duct sealing rebate into two tiers to align with Residential Existing Homes program change.
Residential Appliance Recycling / Non-Residential	• Increase the limit to a maximum of 50 refrigerator and/or freezer units per meter per year for multi-family/lodging facilities. • Increase rebate level from $30 to $50.
Non-Residential Solutions for Business - New Construction	• Reduce whole building incentives for both building owners and the design team.
Other Modifications • Codes and Standards Initiative • Resource Savings Initiative	• Increase the cap on savings that can count toward the standard from 33% to 50%. • Investigate savings impacts of improvements to APS system resources including generation improvements, facilities upgrades, and delivery system improvements.

A. RESIDENTIAL PROGRAMS

APS offers the following EE programs for its residential customers: (1) Consumer Products; (2) Existing Homes HVAC; (3) Home Performance with ENERGY STAR; (4) Residential New Construction; (5) Appliance Recycling; (6) Low Income Weatherization; (7) Residential Conservation Behavior; (8) Multi-Family Energy Efficiency; and (9) Shade Trees. A summary of each program and any proposed enhancements or revisions is discussed below.

1. Consumer Products Program

The primary target market for the Consumer Products program is APS residential customers who are contemplating the purchase of energy using products for their homes. The program provides customers with education and incentives to purchase products, such as light bulbs, lighting systems, pool pumps and other consumer products that use less energy. APS implements the program through participating retailers within the APS service territory.

Lighting: This current program promotes high-efficiency Environmental Protection Agency ("EPA")/Department of Energy ("DOE") ENERGY STAR® approved lighting. APS solicits discount pricing from CFL manufacturers and distributes compact fluorescent lamps ("CFL") through local retailers. Customers are referred to participating retailers to purchase qualifying products. Discount pricing is passed on to consumers through a negotiated agreement with lighting manufacturers and retailers. The program also provides sales training for participating retailers and consumer education, including in-store point-of-sale displays.

APS proposes a new, efficient lighting measure designed to promote the purchase of "2x" incandescent bulbs. These bulbs use new technology to provide the same light quality and features of a traditional incandescent bulb while using half the energy and lasting twice as long. For instance, the new "2x" incandescent bulbs will produce the same amount of light as a 100 watt bulb using only 50 watts of energy. They provide substantial, cost effective energy savings and offer an energy saving alternative for consumers who do not like CFLs. This is a new technology that is just being introduced. The bulbs are not yet available in retail stores, but they are anticipated to be available starting in early 2013. APS incentives will help introduce this new technology to consumers. APS proposes to provide an incentive of up to 50% of the incremental cost per bulb to help overcome the initial cost barrier for 2x incandescent bulbs and to provide information to educate consumers on this emerging energy efficient lighting technology.

APS also proposes a new, efficient lighting measure designed to promote the purchase of LED bulbs. LED light bulbs are currently the most efficient lighting technology available for residential lighting applications. For example, they currently provide the same light output as a 60 watt incandescent bulb using only 12 watts of energy (five times more efficient). LED lighting technology has made rapid advances in the past few years, with more product options, better light quality, significantly higher light output and significantly lower incremental costs. In addition to being energy efficient, LEDs have many other benefits including extremely long life (averaging 20,000 hours or more), full dimming ability, cool operating temperatures which save on air conditioning costs, and they do not contain mercury. Although LEDs have a higher initial cost than standard incandescent light bulbs, the longer bulb life and lower operating costs of LED bulbs makes them cost effective for consumers. APS proposes to provide an incentive of up to 50% of the incremental cost per bulb to help overcome the initial cost barrier for 2x incandescent bulbs and to provide information to educate consumers on this emerging energy efficient lighting technology.

In addition, pursuant to Decision No. 72032 (December 10, 2010), APS has updated the energy savings and cost effectiveness analyses for CFL to address the Energy Independence and Security Act ("EISA") national lighting efficiency standards,[7] which took effect in January 2012. The EISA standards are being phased in over a three-year time period as follows: standards apply to 100 watt incandescent bulbs in 2012, 75 watt bulbs in 2013, and 60 watt bulbs in 2014. Using its model, APS has updated the estimates for savings and cost effectiveness for 100 watt and 75 watt equivalent CFL bulbs expected to be incentivized through the program in 2013. The savings analysis for 100 and 75 watt equivalent CFLs now

[7] HR6 Energy Independence and Security Act of 2007 (December 19, 2007).

uses an updated baseline, which is an incandescent bulb that will meet the new more efficient EISA standards. For instance, an EISA compliant bulb will produce close to the equivalent light output of today's 100 watt incandescent bulbs, while using only 75 watts of energy. By comparison, a CFL uses only 23-26 watts (depending on the type of CFL bulb) to produce the same amount of light, so CFLs continue to be a significant cost effective energy saving measure when compared to EISA compliant incandescent bulbs.

Swimming Pools: The current program promotes energy efficient variable speed pool pumps and seasonal pool pump timers. These measures provide customers with significant cost effective savings. The program provides incentives to consumers, retailers, and installers to help overcome the higher initial cost of these pool products and to promote their increased adoption in the market place. Due to lack of availability of the seasonal pool timer products, APS is proposing to suspend the pool timer measure at this time.

2. Existing Homes Program – Heating Ventilating Air Conditioning ("HVAC")

The Residential Existing Homes Program Heating, Ventilation, and Air Conditioning ("Residential HVAC") measures use a combination of financial incentives, contractor training and consumer education to promote the proper installation and maintenance of energy efficient HVAC systems. The air conditioner ("AC") Rebate, Duct Test and Repair and HVAC Diagnostics portions of the program include measures supporting energy efficient residential air conditioning and heating systems through the proper installation, maintenance and repair of HVAC systems. This program also provides APS customers with referrals to contractors who meet strict program requirements for professional standards, technician training, and customer satisfaction.

HVAC: The APS air conditioner ("AC") Rebate measures offers a financial incentive to homeowners for buying EE equipment (≥13 SEER/10.8 EER) that is installed in accordance with the program requirements for air flow, refrigerant charge and sizing. APS requires all Residential AC rebates to meet APS's quality install standards.

Duct Test and Repair: This measure provides financial incentives for customers to have their HVAC system's duct work tested for leakage and repaired.

HVAC Diagnostics: This measure provides customers a financial incentive to have their existing AC unit or heat pump tuned-up so that it runs more efficiently. The tune-up includes a correction of the refrigerant charge, leak repair if necessary, condenser coil cleaning, and airflow correction. These activities are verified on-site during the tune-up with a diagnostic system that records the equipment status before and after the work is done. This measure was implemented on March 31, 2011. APS and its program evaluation contractor, Navigant Consulting, conducted the field research that was described when the program was approved as a pilot by Decision No. 72060 (January 6, 2011). The results of the field research showed that the anticipated savings from the measure are attainable. Based on the research, process improvements were implemented in the fall of 2011 to make the program more effective. To date, the results in 2012 have been much better than in 2011. APS proposes to continue this measure on a permanent basis (no longer a pilot).

APS is not proposing any enhancements or measures for the HVAC Diagnostic component of its Residential Existing Homes program at this time. However, APS is proposing to reduce the AC quality installation rebate amount from $270 down to $245. This measure's incremental cost has gone down, so to remain in compliance with Decision No. 68488 (February 23, 2006) that requires incentives to be no more than 75% of the incremental cost of a measure requires that the rebate decrease to $245.

APS is also proposing to split the existing Duct Test and Repair measure into two tiers as shown below.

Tier 1 Prescriptive Duct Repair:

- Requirement = Seal and/or repair duct work in prescribed areas. Test in and test out with air leakage measurement equipment is not required.
- Incentive = 75% of job cost up to a $200 maximum.

Tier 2 Duct Test and Repair:

- Requirements = Same as existing Duct Test and Repair requirement, including test in and test out requirements.
- Incentive = 75% of job cost up to a $400 maximum.

APS is proposing a prescriptive Duct Repair incentive in order to expand the reach of the Duct Repair measure. Many HVAC contractors repair and seal duct work when they install new equipment or make service calls, but most do not take advantage of the existing APS Duct Test and Repair rebate. This is primarily due to the time and expense associated with the air leakage tests required for the existing rebate on a simple duct seal. A lower incentive for a prescriptive duct repair incentive should capture this missed opportunity. Random inspections will be conducted to ensure that energy savings assumed from these jobs are actually being achieved. The existing Duct Test and Repair measure will retain the same currently approved requirements, but the incentive amount is being raised to recognize the larger jobs being done through that measure and to create some separation from the prescriptive incentive.

3. Home Performance with ENERGY STAR® Program:

The Home Performance with ENERGY STAR ("HPwES") program promotes a whole house approach to energy efficiency by offering incentives and financing for improvements to the building envelope of existing residential homes within the APS service territory. The current program includes measures to improve the energy efficiency of the home such as air sealing, insulation, duct sealing, faucet aerators, and low flow showerheads. The HPwES program provides APS customers with referrals to specially credentialed contractors who meet strict program requirements for professional standards, technician training, and customer satisfaction.

The HPwES program utilizes certified contractors to perform a detailed checkup on a customer's home to diagnose energy inefficiencies. The HPwES checkup provides the customer with a comprehensive list of potential improvements that would make their home more energy efficient. The customer has the option of selecting the improvements, if any, in which the contractor is also qualified to install. The cost of the checkup to the customer is

$99 and includes ten CFLs, one low flow showerhead, and two faucet aerators, in addition to the evaluation and energy efficiency recommendations for the home. The contractor that completes a HPwES checkup receives a $200 incentive from APS after they submit the checkup documentation and it is accepted by APS. Contractors normally charge customers about $400 for similar in-home checkups.

The current HPwES program also provides several incentives that comprise the main components of this program:

1. Duct Test and Repair, 75% of job cost up to a maximum of $250
2. Air Sealing, 75% of job cost up to a maximum of $250
3. Insulation with Air Sealing, 75% of job cost up to a maximum of $500
4. Shade Screens, $1 per square foot up to a maximum of $250
5. Performance Based Rebates

Table 3
Existing Performance Based Rebate Incentive Structure

Incentives Based on Percent of Whole House Energy Savings	Incentive $/kWh	Total Incentive Cap
Tier 1 - 10 - 15%	$ 0.25	$ 3,000
Tier 2 - 15 - 20%	$ 0.30	$ 3,000
Tier 3 - 20 - 30%	$ 0.35	$ 3,000
Tier 4 - > 30%	$ 0.40	$ 3,000

Customers participating in HPwES can also participate in APS's Residential Energy Efficiency Financing ("REEF"). The REEF program offers customers financing for energy efficiency improvements at below market rates. This further reduces the upfront cost barrier for whole house energy retrofits.

Customers also have access to other APS Residential incentive measures such as Consumer Products or Appliance Recycling, and these measures are also recommended when appropriate as part of the checkup.

After a re-evaluation of the cost effectiveness of this program, APS is proposing to remove or modify several of the existing rebates for the HPwES program.

APS proposes to discontinue the existing shade screen rebate, to improve program cost effectiveness. APS also proposes to remove the Direct Install Low-Flow faucet aerator measure. Due to the wide variability in faucet types and sizes, installation rates proved to be much lower than expected.

As a replacement for faucet aerators, APS proposes to add Direct Install Smart Strips. The proposed Direct Install Smart Strips will be installed when the customer has a home entertainment system or home office. The Smart Strip technology links one home electronic device to a series of other electronics. When the main device is shut off, the smart strip will terminate power to the other linked devices. For example, if the Smart Strip is connected to

the home television, once the television is turned off, the strip will terminate power to the DVD player, gaming system, and amplifier also plugged into the strip.

APS proposes to split the HPwES duct test and repair rebate into to two tiers in order to remain consistent with the duct test and repair rebates being proposed under the Existing Homes program. See Section A.2 for more details.

In order to further improve the cost effectiveness of this program, APS also proposes to postpone the launch of the Performance Based Rebate structure described in Table 3 until the program can be further evaluated. This measure was approved for 2012, but has not yet been implemented, thus there will be no impact to the market.

4. Residential New Construction Program

The Residential New Construction program promotes high efficiency construction practices for new homes. It offers incentives to builders that meet program EE standards in order to increase the penetration of high efficiency homes. The program emphasizes the "whole building" approach to improving EE and includes field testing of homes to ensure compliance with APS performance standards. Participating builders are trained to apply building science principles to assure that high-efficiency homes also have superior comfort and performance. The program also provides education for prospective homebuyers about the benefits of choosing an energy efficient new home and the features to consider.

The APS Residential New Construction program is based on the program requirements of the EPA ENERGY STAR® Homes program. In 2012, the EPA released "Version 3" EE requirements for the ENERGY STAR Homes program.[8] In an effort to continually strive for more EE construction practices in APS service territory, Version 3 requirements are incorporated as the new efficiency standard for the first tier incentive level of this program. A new home in Arizona which meets the Version 3 ENERGY STAR requirements will save an average of 5,300 kWh per year as compared to a typical new code-built home.

APS believes it is important to continue to include a higher "second tier" program savings level to encourage advanced builders to exceed the ENERGY STAR requirements and achieve even higher savings levels. In order to account for higher incremental costs that builders incur, APS offers a second tier incentive to builders who build homes to a Home Energy Rating System ("HERS") score of 60, which represents an average savings of over 6,500 kWh per year compared to a typical new home in Arizona.

To ensure that the stringent EE levels of the new program requirements are being met, program quality control is essential. This requires APS to acquire more data on the home inspection process from the independent home energy raters who certify homes ENERGY STAR. This additional field data requires home energy raters to spend added time collecting and uploading data to APS. This data helps ensure program consistency and field

[8] The Version 3 EPA ENERGY STAR Homes program requirements can be found at http://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_v3_guidelines.

compliance while saving APS staff time in data collection. In exchange, APS offers an incentive for home energy raters who provide this additional field data.

The APS Residential New Construction Program incentive structure for 2013 remains the same as it is in 2012. APS is not proposing any enhancements or revisions to its Residential New Construction program for 2013.

5. Appliance Recycling Program

The Appliance Recycling Program targets the removal of functional second refrigerators and freezers in residential households, businesses, and multifamily properties. The average household replaces a refrigerator every ten years. However, many of the refrigerators and freezers being replaced are still functioning and often remain in the home as underutilized energy-consuming backup appliances in garages and basements. APS currently offers a $30 rebate and free pick-up and recycling of operable second refrigerators or freezers to encourage removal of these older, inefficient appliances from the grid. In addition, APS has a partnership with Sears that makes it easier for APS customers purchasing a new refrigerator or freezer to participate in the program.

APS currently recycles units from non-residential customers that fulfill program eligibility requirements. Those customers are limited to two units, per account, per year. On several occasions since the launch of the program in 2010, non-residential customers have inquired about expanding the program participation limit. Therefore, APS proposes capping the non-residential participation to a maximum of 50 units, per meter, per year.

Additionally, APS proposes a program modification that would increase the current customer rebate from $30 to $50 per refrigerator/freezer. In 2012, Salt River Project increased their rebate level to $50, and that increase is expected to continue long term. Since both programs benefit synergistically from each other's advertising, it would be less confusing for APS customers if incentive levels remain consistent between the two utilities. Compared to other appliance recycling programs nationally, APS has been on the low end of the rebate level spectrum. This increase would bring our rebate up to a more competitive level with similar utility programs across the country. In addition, the increased volume due to the higher incentive level will generate more energy savings for this program, which will help APS achieve its increasing energy savings goal.

6. Low Income Weatherization Program

APS's Energy Wise Low Income Weatherization Program is designed to improve the energy efficiency, safety, and health attributes of homes occupied by customers whose income falls within 200% of the Federal Poverty Guidelines ("FPG"). The weatherization component of this program serves low income customers with various home improvement measures, including cooling system repair and replacement, insulation, sunscreens, water heaters, window repairs and improvements, as well as other general household repairs. Non-profit agencies and municipal entities owning and operating low income multifamily housing are also able to benefit from funds set-aside to weatherize their complexes. In addition, there is a Crisis Bill Assistance component serving customers whose income falls below 150% of the FPG. These programs elements are administered by various community action agencies

throughout APS's service territory. No changes are being proposed for the Low Income Weatherization program for 2013.

7. Conservation Behavior Program

The Residential Conservation Behavior Pilot program provides participating residential customers with periodic reports containing information designed to motivate them to adopt energy conservation behaviors.

To drive conservation behavior, the program provides direct-mailed reports to participants that show how the energy usage in their homes compares with energy efficient homes and other similar homes. In addition to providing these benchmarks, the reports also highlight energy efficiency measures and actions that participants can take to improve the energy efficiency of their homes. These tips serve as an energy conservation idea list and education tool to encourage behavioral changes. Participants are also encouraged to visit a program web portal for additional information.

Results of the current pilot program will be reported and filed with the Commission in August 2012. Based upon preliminary findings it appears that this program is cost effective. Therefore, APS proposes to continue this program on a permanent basis (no longer a pilot), with no changes for 2013.

8. Multifamily Energy Efficiency Program

The Multifamily Energy Efficiency Program ("MEEP") targets EE measures and solutions for multifamily properties and dormitories.

The MEEP takes a two-track approach to address the challenges of reaching the multifamily market. The first track is a direct install program that provides energy efficient CFL light bulbs, showerheads, and faucet aerators to retrofit each dwelling in a community. These measures are provided at no cost to the multifamily community, but must be installed by the facility personnel. In addition, this track works through the Non-Residential APS Solutions for Business programs to provide energy assessments to assist communities in identifying additional energy saving opportunities and available APS rebates within the multifamily complex but outside of the individual dwelling units (e.g. common area buildings, swimming pools, outdoor lighting, and laundries).

The second track is a new construction/major renovation program that offers a per dwelling incentive from $650 to $900 for projects that build or renovate to a higher level of energy efficiency. Incentives increase as a higher level of energy efficiency is achieved. Efficiency requirements are modeled after the ENERGY STAR® Qualified Homes National Attached Homes Builder Option Package and designed to deliver building comfort and energy savings. Builders may choose from one of four Builder Option Packages ("BOP") and achieve compliance through a prescriptive or performance path. Both paths are designed to give builders the flexibility to meet specific project challenges while encouraging participation from a wide variety of projects.

The prescriptive path helps builders achieve BOP compliance by offering a list of prescriptive measures that are designed to deliver the program's required energy savings.

Measures are divided into mandatory and optional categories and mandatory measures may be matched with the optional measures of the builder's choice. Each BOP requires a different number of optional measures to reach compliance.

The performance path allows builders to achieve BOP compliance using any chosen building designs as long as the building's performance when tested is verified to deliver the energy savings required from the program. These projects must be tested by a certified HERS rater and assigned a HERS rating. BOP compliance is reached when the HERS rating meets or exceeds the minimum required HERS ratings established for each BOP.

To further assist builders, the program offers a design incentive for builders that want to use energy modeling to create their project building designs. The incentive will offset the upfront costs of energy modeling by paying 50% of the energy modeling costs up to a maximum of $5,000.

The desired outcome in the implementation of the multifamily program is to realize long-term energy savings for the multifamily market segment and to improve the standard by which multifamily structures are built and maintained.

Specific program modifications may be proposed pending the results of the benefit/cost analysis using Staff's inputs and methodology.

9. Shade Tree Program

The Shade Tree Pilot Program provides free shade trees to APS customers to help reduce home cooling costs. The goal of this program is to encourage customers, through education and incentives, to plant shade trees in areas near their homes.

Residential single family home customers residing in Maricopa County are eligible to receive either two (for homes built after 1980) or three (for homes built prior to 1980) free shade trees per residence. Customers must attend an APS Shade Tree workshop in order to receive trees. The tree planting workshop educates customers on successful tree planting and care techniques and provides a customer specific site map indicating the ideal tree planting location(s) for energy efficiency. As required by the Commission Decision No. 73089 (April 5, 2012), APS will initiate a pilot project in 2012 to test an on-line workshop to either supplement or replace the event-located workshops currently being offered.

Results of the current shade tree pilot program were reported and filed with the Commission on May 9, 2012.[9] This analysis demonstrated that the program is cost effective. Therefore, APS proposes to continue this program on a permanent basis (no longer a pilot) in 2013.

APS proposes to continue its program as currently approved. Due to the timing of the online education model test and evaluation in 2012, the exact 2013 education model is not known at this time.

[9] Docket No. E-01345A-10-0219.

B. NON-RESIDENTIAL PROGRAMS

APS's five current Non-Residential EE programs are marketed under the trade name "APS Solutions for Business." A description of each of the Non-Residential programs follows.

1. Large Existing Facilities Program

The primary targets for the Non-Residential Existing Facilities program are customers who have an aggregated monthly peak demand greater than 100 kW. This program provides prescriptive incentives to owners and operators of large Non-Residential facilities for EE improvements in lighting, HVAC, motors, building envelope, and refrigeration measures. Custom incentives are also provided for EE measures not covered by the prescriptive incentives. Incentives are also provided to customers who conduct qualifying energy studies. The largest customers (electric usage $\geq$ 40,000 MWh per year) may qualify to self direct the amount they pay toward DSM funds for their own EE projects. All customers may qualify to receive program arranged financing for their EE projects. Customers may participate in the Direct Install (Direct Install can pay up to 90% of project cost) family of measures in the areas of lighting and refrigeration for any facilities with a peak monthly demand of 400 ("kilowatt") kW and less. APS proposes to continue its Large Existing Facilities Program as previously approved and will continue to offer the Bid for Efficiency pilot in 2013.

2. New Construction Program

The Non-Residential New Construction program includes three components: 1) design assistance; 2) prescriptive measures; and 3) custom efficiency measures. Design assistance involves efforts to integrate energy-efficiency into a customer's design process to influence equipment/systems selection and specification as early in the design process as possible. Prescriptive incentives are available for EE improvements in measures such as lighting, HVAC, motors, building envelope, and refrigeration applications. Whole Building Design is a component within the New Construction custom efficiency measures that influences customers, developers, and design professionals to design, build and invest in higher performing buildings through a stepped performance incentive structure with the financial incentives becoming larger as the building performance improves. The APS Whole Building Design incentives are designed to complement the Leadership in Energy and Environmental Design ("LEED") green building certification system which was developed by the United States Green Building Council.

APS proposes to reduce incentive levels for the whole building measure within the New Construction program in order to reduce program budget and keep the incentives consistent with other EE measures and what is offered by other utilities.

Current Whole Building incentive levels are based upon Decision No. 71460 (January 26, 2010), page 14, line 1 which states:

> "Under the Whole Building Design component, incentives for owners/developers would range from $0.10 to $0.26 per kWh saved during the first year of operation. The incentives would be tied to savings ranging from 10% to 30% above the ASHRAE[10] 90.1 - 2007 baseline. Incentives for building teams would range from

[10] American Society of Heating, Refrigerating and Air Conditioning Engineers.

> $0.04 to $0.12 per kilowatt-hour ("kWh") saved during the first year of operation, also for savings ranging from 10% to 30% above the ASHRAE 90.1 - 2007 baseline. The measure cap for the new component would be 75% of the incremental cost, up to $300,000 per customer, per year, for owner/developers.[11]"

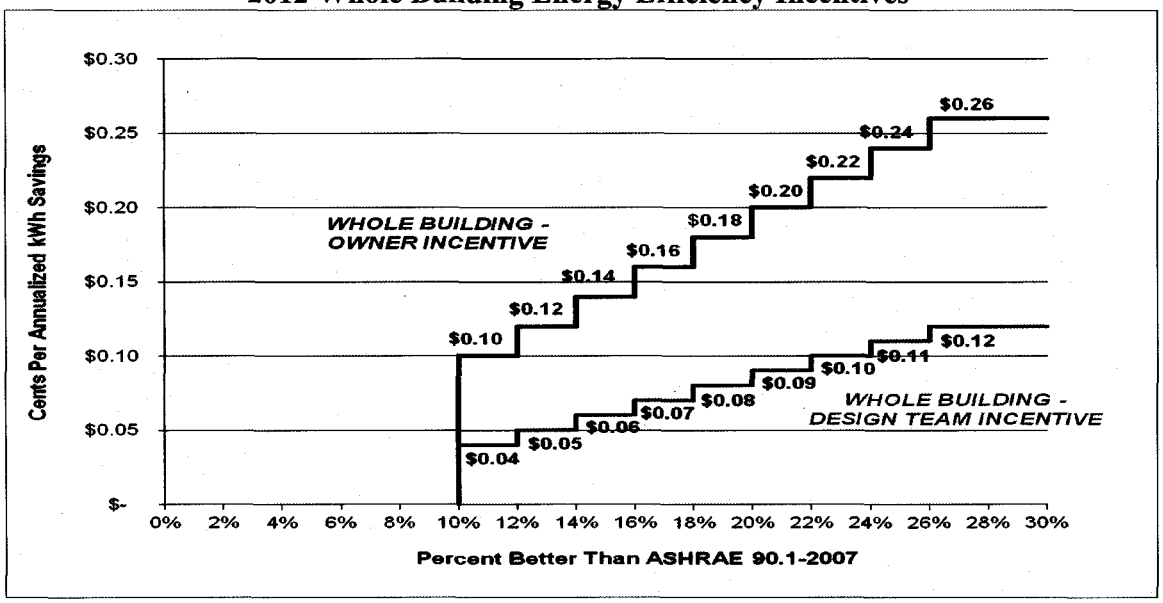
The Non-Residential New Construction program introduced the Whole Building Design incentives in 2010. The whole building approach optimizes energy savings by integrating the design of the building envelope, HVAC systems, and lighting systems. Such an approach requires building simulation tools to calculate total energy consumption for the planned building versus its respective baseline.

Energy efficiency incentives are paid to owners/developers and to the design team. Incentives are only offered for those projects achieving at least 10% savings when compared to ASHRAE 90.1 -- 2007.

After two years of implementation, APS has found that the total incentive cost per kWh (Owner incentive plus Design Team incentive) is high relative to the other programs within the APS Solutions for Business program ($0.20 per kWh to date versus $0.10 per kWh).

In addition, the Solutions for Business Whole Building incentive level is presently higher than what other similar utilities provide. For example, APS Owner incentive averages $0.18 per kWh versus other utilities averaging $0.11 cents per kWh. The current APS Solutions for Business incentive structure is depicted in Figure 1.

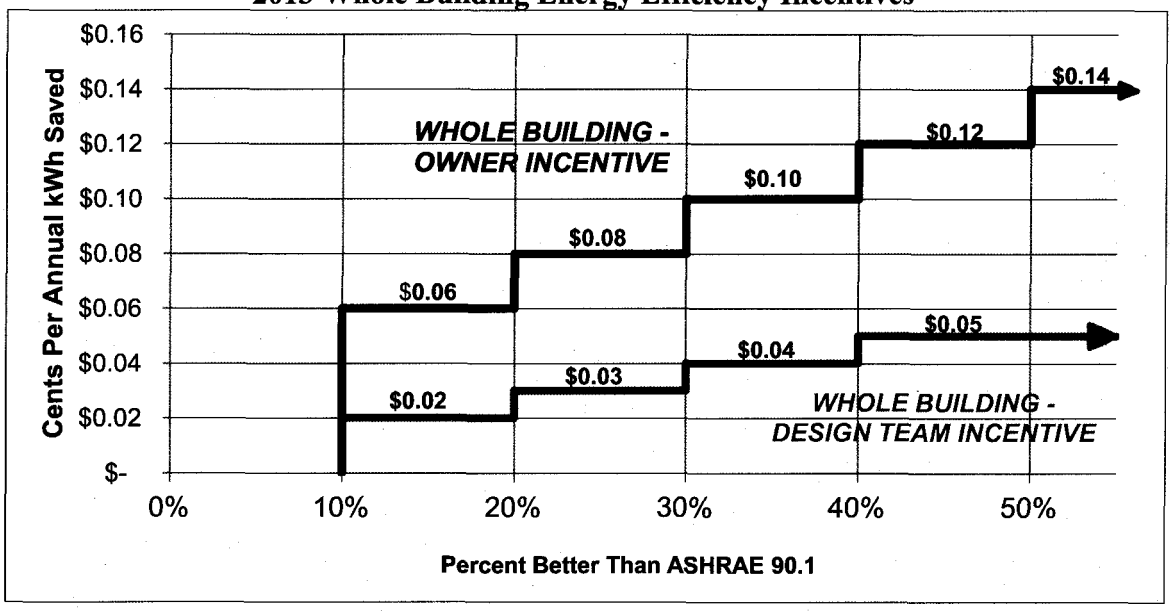
Figure 1
2012 Whole Building Energy Efficiency Incentives



[11] Subsequent to Decision No. 71460, the Commission increased caps form $300,000 to $500,000 in Decision No. 72088 (January 20, 2011).

The revised proposed incentive structure is depicted in Figure 2. APS also proposes that the design cap be lowered from $125,000 to $50,000.

Figure 2
2013 Whole Building Energy Efficiency Incentives



The incentive still supports the the LEED standard and keeps the cost per kWh in line with other program measures. The whole building measure will continue to be based on the ASHRAE 90.1 standard, tracking with the latest version of LEED New Construction. In general, the LEED standard uses the latest revision of ASHRAE 90.1. In this way, the program stays current with the marketplace and continues to align with LEED. The measure cap for the Whole Building incentive will continue to be 75% of the incremental cost of the Whole Building measures.

APS anticipates that the incentive reductions to the Whole Building measure will reduce the DSM budget. APS also believes that program participation will be maintained due to increased program awareness and momentum within the marketplace.

3. Small Business Program

The primary targets for the Small Business Program are customers that have a maximum peak aggregated demand of 100 kW or less. This program provides prescriptive incentives to small business owners for EE improvements in lighting, HVAC, motors, building envelope, and refrigeration applications through a simple and straightforward mechanism. In addition, a customer in the Small Business Program may participate in the Direct Install (Direct Install can pay up to 90% of project cost) family of measures in the areas of lighting and refrigeration and may also qualify to receive APS arranged program financing for their EE projects. Small Business customers are also eligible to receive incentives for energy studies and custom efficiency measures. APS proposes to continue its Small Business Program as previously approved, with no proposed changes for 2013.

4. Schools Program

This program is designed to set aside funding for K-12 school buildings, including public schools, private schools, and charter schools. If schools fully subscribe this program budget or if they reach their incentive cap of $100,000 per year under this program, they can participate in other Non-Residential programs. EE incentives are the same as the Large Existing Facilities (for existing school facilities) and New Construction (for new school construction and major renovations). In addition, any size school may participate in the Direct Install measure incentives and may also qualify to receive APS arranged program financing for their EE projects. In addition to this, schools may qualify to receive federal funds for EE projects.

APS proposed reduction of incentive levels for the whole building measure discussed earlier in the New Construction program may also impact the Schools program. APS proposes to continue its Schools Program as previously approved, with no proposed changes for 2013.

5. Energy Information Services Program

The Energy Information Services ("EIS") program provides 15-minute interval electric usage data to large Non-residential customers through a web-based energy information tool. This tool provides users with information that can be used to improve or monitor energy usage patterns, reduce energy use, reduce demands during on-peak periods, and to better manage their overall energy operations. APS proposes to continue its EIS Program as previously approved, with no proposed changes for 2013.

C. OTHER EE INITIATIVES

1. Codes and Standards Support Initiative

The Energy Codes and Standards ("C&S") Initiative encourages energy savings by improving compliance levels with existing energy codes and standards and promoting the adoption of higher local building energy codes and appliance standards in jurisdictions throughout the APS service area. C&S are universally regarded as one of most cost-effective ways of promoting EE. Since 2005, APS EE programs have paved the way towards more rigorous EE C&S. In 2013, key C&S activities include initiatives targeted at training, conducting outreach, and undertaking market transformation activities.

Integrating with the Solutions for Business Non-Residential Technical Training series, APS will develop and offer training classes designed to promote the adoption of new C&S while improving compliance rates with existing C&S.

Key objectives will be to:

- Raise awareness of current C&S;
- Better prepare code officials and building professionals to adhere to existing standards;
- Promote new versions of the code by highlighting key changes and economic benefits; and
- Advocate for C&S updates over time.

In addition to the APS Technical Training series, APS will work with other training organizations and provide scholarships and support in ways that will impact a greater number of participants at minimal cost.

APS will work within the code jurisdictions throughout the APS service territory to support C&S activities. Outreach activities include: participation in energy code adoption committees, providing technical support (calculations, research, and information) to code adoption committees, provide public testimony (when requested) in support of C&S adoption before city councils, and creating strategic alliances and partnerships with other utilities and C&S advocacy groups to leverage activities in a manner that will achieve greater impacts.

APS will target and undertake activities designed to create market transformation. Key activities include:

- Conducting energy savings evaluation work through the APS evaluation contractor, Navigant Consulting, to create methodologies for claiming savings and protocols for how C&S savings can be measured and verified.
- Undertaking market research and studies to assess market opportunities and develop strategic program initiatives.
- Gathering market data and insight to document construction activities, code enforcement activities, and market saturation.
- Undertaking analysis and review to ensure utility incentive programs align well with local energy C&S.

APS requests Commission approval to increase the cap on claimed savings for the C&S initiative from 33% to at least 50%. APS believes substantially increasing or eliminating the cap is critical because C&S savings are extremely cost effective and therefore in the best interest of APS customers. The current limitation of 33% discourages APS from supporting updates to building codes and appliance efficiency standards because such updates eliminate the potential for claiming savings that APS can fully count toward meeting the EE standard. Indeed, any artificial limitation on using the very real energy savings attributable to C&S provides such a perverse disincentive. Therefore, APS requests the Commission relieve APS from the 33% cap contained in R14-2-2404(E) and allow APS to count at least 50% of the savings from improved codes and standards toward meeting its energy efficiency savings goal.

2. APS Resource Savings Initiative

APS is currently investigating the savings impacts of various EE improvements to APS's system resources. EE improvements at the system level exert a downward pressure on APS rates because they reduce system costs for all customers without foregoing retail sales. System improvements can serve to leverage investments in technology starting at the source of generation and continuing to the customer meter without needing to fund customer incentives, thus reducing upward pressure on DSMAC charges.

Efficiency system improvements will result in measurable EE savings that are just as real and valuable as any savings that the Company can achieve with customer funded, on-premise EE incentives. APS knows these types of savings will prove to be beneficial to all APS customers by reducing APS's cost to serve and will ultimately help APS achieve energy

savings goals at a lower overall cost to all our customers. The policy to allow system improvement savings to be counted toward meeting EE goals has been accepted and adopted in other states including; Washington, Iowa, Ohio, Florida, Virginia, and Delaware.

The efficiency system improvements described below will: 1) benefit customers by reducing upward pressure on the DSMAC, 2) help APS meet Commission mandated EE goals, and 3) bring Arizona's policy in line with several other states that allow utilities to count system savings initiatives toward EE goals.

Generation Improvements and Facilities Upgrades

APS is evaluating the savings impacts of various generation improvements and facilities upgrades to APS's resources. Generation improvements being evaluated include, but are not limited to, the installation of high-efficiency motors and variable speed drives. Facilities upgrades include the installation of energy efficiency upgrades at APS facilities. The EE Rules do not prohibit APS from counting generation improvement or facilities upgrades toward meeting the EE goal. APS anticipates that it will include savings from generation improvements and facilities upgrades improvements in its 2014 DSM Implementation Plan and apply those toward meeting the EE goal.

Delivery System Improvements

APS is also currently evaluating the savings impacts of various delivery system (transmission and distribution) improvements to APS's system. Delivery system improvements being evaluated include, but are not limited to: system reconductoring, high efficiency transformer upgrades, and integrated volt/VAR controls.

At this time, the EE Rules preclude the counting of utility delivery system savings (but not generation or general plant) toward meeting the cumulative energy savings goals. However, because delivery system savings provide measurable and energy savings that benefit all APS customers, APS is requesting that the Commission allow APS to count delivery system improvement savings toward meeting future EE goals. Therefore, APS is requesting relief from the prohibition on counting energy delivery savings contained in R14-2-2404(H) to allow APS to count these very real and valuable savings toward meeting future EE goals.

III. Demand Response and Load Management Programs

APS requests continued funding of the APS Peak Solutions® program, Home Energy Information Pilot and marketing/measurement of DR rates.

APS plans to meet 10% of the 2013 DSM energy savings goal from DR programs and rates. These programs and rates include the following.

A. APS PEAK SOLUTIONS® PROGRAM

APS Peak Solutions is a Commercial and Industrial DR Program for APS's Yuma and Phoenix metropolitan customers utilizing direct load control and manual load reduction.

The program began on June 1, 2010. It is available for the summer months (June through September) between 12:00 noon and 8:00 p.m. (Sunday – Saturday) daily. Customers will have an option to be notified of an event either ten minutes or two hours prior to starting the Peak Solutions event. The customer is limited to being controlled for 80 event-hours during the season with four to six hours of testing. The program anticipates a 2013 weekday load reduction of approximately 100 MW, at the meter. APS proposes to continue its Peak Solutions Program as previously approved.

B. SUPER PEAK RATE

The residential Super-Peak Pricing ("SPP") rate went into effect on January 1, 2010.[12] The SPP periods are pre-determined and set forth in the rate schedule rather than communicated to the customer on a day-ahead basis, as with Critical Peak Pricing. Participating customers will pay higher charges during the "Super-Peak" periods, but will pay lower charges during off-peak periods. The "Super-Peak" period is 3:00 p.m. to 6:00 p.m., Monday thru Friday during June, July, and August (excluding holidays). APS estimates the 2013 SPP load reduction to be approximately 0.4 MW. APS proposes to continue its Super Peak Rate as previously approved.

C. TIME OF USE RATES

Time of Use ("TOU") rates are designed (1) to reflect the time variation in the cost of producing electricity to more accurately match those costs with the service being provided to the customer, thereby encouraging efficient use of energy and (2) to encourage customers to reduce consumption during peak hours or to shift energy usage to off-peak periods.

APS currently offers five residential TOU rates in addition to the Super Peak rate discussed above. The "Series 1" rates, which have on-peak hours from 9 a.m. to 9 p.m., have been offered since 1982. In July 2006, APS introduced the "Series 2" TOU rates with a shorter on-peak period (12 noon to 7 p.m.) which offers 5 additional off-peak hours. The Company's objective is to emphasize the Series 2 rates because they offer customers a better opportunity and incentive to reduce usage during peak hours. Towards that end, the Series 1 rates were frozen to new customers on January 1, 2010. In addition, in 2011 APS began offering a new TOU rate for customers with an electric vehicle, which has a super off peak period from 11

[12] Approved by the Commission in Decision No. 71448 (December 30, 2009).

p.m. to 5 a.m. on weekdays to incent participants to charge their electric vehicle during these hours.

Furthermore, APS has 9 business TOU rates: (a) E-32 extra small, small, medium and large usage rates, (b) two school medium and large usage rates, (c) E-35 extra large usage rate, (d) E-20 for houses of worship and (e) E-221-8T rate for water pumping customers. Each of these rates provides peak and off-peak charges for both energy and demand.

APS estimates the 2013 TOU load reduction to be approximately 119 MW from the residential rates only. The peak reduction for business TOU rates have not been estimated at this time. APS proposes to continue its Time of Use Rates as previously approved.

D. CRITICAL PEAK PRICING RATES

The Critical Peak Pricing ("CPP")[13] rates for APS general service and residential customers went into effect on January 1, 2010 and will be in effect until 2016. In addition to the benefits described in the TOU rates, the CPP rate can be utilized to call 6 to 18 events between June and September with Peak Event hours from 2 p.m. – 7 p.m., on Monday through Friday. The Company objective is to call events during the hot summer months when the Company has higher fuel costs. APS proposes to continue its CCP Rates as previously approved.

E. INTERRUPTIBLE RATE AND PEAK TIME REBATE PROGRAM

In 2013 as approved in Commission Decision No. 73183 (May 24, 2012), APS will offer two additional demand response programs, an experimental peak time rebate program for residential customers and an interruptible rate for large and extra-large business customers.

The residential peak time rebate program provides a bill credit to the customer for the kWh they reduce during the called critical hours. The kWh reduction is an estimated amount, based on the actual metered usage versus the expected or "baseline" usage during those hours. The program targets the same critical hours as the critical peak pricing program. APS will experiment with both concepts until the next rate case, at which time we will determine which rate concept should be offered for permanent deployment.

The interruptible rate program offers demand response to large and extra-large business customers that are not eligible for the Peak Solutions program. Participants are incented to reduce load to a pre-determined level during called critical days. The incentives vary by options, which are chosen by the customer, including the maximum critical days per year and the notification lead time.

F. HOME ENERGY INFORMATION PILOT PROGRAM

On March 3, 2011, the Commission approved the Company's Home Energy Information ("HEI") Pilot.[14] APS's HEI Pilot is designed to test available home area network technologies and determine communication devices, DR strategies, and the mix of "smart" home applications that can be most effectively employed in a residential setting. In addition,

[13] Approved by the Commission in Decision No. 71448 (December 30, 2009).
[14] Decision No. 72214 (March 3, 2011).

the HEI Pilot will assess customer acceptance, value, and frequency of usage of in-home energy displays or other communication devices designed to assist customers in managing their daily energy usage. The pilot was originally planned to be conducted over two summer seasons (2011 and 2012) allowing the Company time to choose technology vendors, solicit residential participants, install devices and communications systems, and determine measurement and evaluation techniques. APS was granted a revision to extend the Pilot by one year through 2013 as part of the 2012 Implementation Plan approval[15]. The extension has no budget changes and allows APS two successive summer seasons in the Measurement, Evaluation, and Research ("MER") study providing the essential and comprehensive information to develop a future full scale program.

APS is deploying the following five technology assessment programs as part of the HEI Pilot:

1. Critical Peak Pricing with Customer Control Device
2. In-Home Energy Information Display
3. Direct Load Control
4. "Smart" Communication devices
5. Pre-Pay Energy Service

The data collected and analyzed in the HEI Pilot will allow APS to better design and implement future DR, EE, and smart grid applications. The HEI Pilot was part of a broader plan to increase APS's DR portfolio by at least 250 MW. APS proposes to continue its HEI Pilot program as previously approved.

[15] Decision No. 73089 (April 5, 2012).

IV. Budget

APS anticipates that it will be able to meet its 2013 savings goal (an anticipated 549,000 MWh) and reduce the DSMAC which is presently set at $0.002717 per kWh and $0.9685 per kW. With Commission approval, the 2013 DSMAC will be effective with first billing cycle in March 2013.

The exact funding requirements for this Plan and a total DSM budget will be determined after additional analysis is completed and filed with the Commission in a supplemental filing. The 2013 DSM budget will be impacted by the requirement to utilize Staff's societal cost test methodology and to revise the performance incentive in the Plan as discussed below:

- APS is required to use Staff's inputs and methodology for the societal cost test and will file its budget, net benefits, and cost-efficiencies analyses after it is able to confirm its analysis using Staff's Societal Cost Test inputs and methodology for each of APS's EE measures and programs as required by Commission Decision No. 73089 (April 5, 2012).
- APS is also required to include information regarding a redesign of APS's performance incentive after receiving input from stakeholders as directed by Commission pursuant to Commission Decision No. 73183 (May 24, 2012).

APS will also provide analysis regarding the inclusion of unrecovered fixed costs in the cost benefit analysis and exempting Freeport McMoRan from the DSMAC. APS was requested to include these items during the Open Meeting approving APS's 2012 DSM Plan[16].

[16] March 27, 2012.

V. DSM Energy Savings and Benefits

A. ENERGY EFFICIENCY PROGRAMS

APS will supplement this filing to include the expected annual and lifetime energy savings and peak demand savings from each EE program and a summary of the net benefits generated for 2013 after the Company confirms its analysis using Staff's societal cost test model.

B. DEMAND RESPONSE PROGRAMS

Pursuant to the EE Rules[17], DR programs may comprise up to 2% of the 22% EE Standard by 2020. Furthermore, the DR peak demand reduction contribution shall not exceed 10% of the cumulative EE Electric Standard for any year. APS's 2013 DR programs and rates that apply toward the EE Electric Standard are shown in Table 5.

The DR energy savings formula in the EE Rules is:

DR Energy Savings (MWh) = 2013 DR MW load reduction x 8760 annual hours x 50% load factor

Table 5
2013 DR MW Load Reduction

DR Programs and Rates	Load Reduction (MW) at Customer's Meter
APS Peak Solutions	100
Time of Use Rates (including Super Peak)	119
CPP/Interruptible Rate/PTR	2
Total	221

Substituting the 221 MW DR load reduction in Table 5 into the DR energy savings formula yields 968 GWh of potential energy savings from DR programs and rates. Since the EE Rules cap the DR contribution at 10% of the energy savings goal, 54 GWh will be counted from all DR programs toward the 2013 DSM energy savings goal of 549 GWh, in lieu of the higher calculated value of 968 GWh.

[17] A.A.C. R14-2-2404(C).

VI. Environmental Benefits

The expected savings in water consumption and air emissions that will result from energy saved in this 2013 Plan over the lifetime of the measures installed in 2013 will be determined and filed with the Commission at a later date.

When calculating these environmental benefits, APS believes that the most appropriate values to associate with EE measures are those from the newest combined cycle plants. These values are meant to reasonably approximate newer combined cycle plants and the air emissions and water consumption savings that may be avoided through EE measures. These natural gas fired plants represent APS's last significant dispatch group and a large portion of the market for power purchased by APS. Any load reduction due to EE measures will most likely displace generation from this type of plant.

APS did not conduct a detailed study of EE measures, power supply or regional emissions for purposes of developing these emissions values. APS's approach is based on general experience related to power dispatch, reported emissions, the current electricity market, and EE measures. APS believes this approach is a reasonable and cost-effective method of addressing environmental externalities associated with energy efficiency.

The values APS used to calculate the EE Environmental Benefits are as follows:

SOx	0.00445 lbs/MWh
NOx	0.08455 lbs/MWh
CO_2	899 lbs/MWh
PM10	0.0247 lbs/MWh
Water	317 gallons/MWh (utility water savings only)

VII. Measurement, Evaluation, and Research

The MER process verifies the impact and cost effectiveness of the EE programs. Navigant Consulting, a nationally renowned, independent third-party, energy consulting company, provides the EE program measurement and evaluation services. These measurement and evaluation activities include, but are not limited to:

- Performing process evaluation to indicate how well programs are working to achieve objectives; and
- Performing impact evaluation to verify that EE measures are installed as expected; measuring of savings on installed projects to monitor the actual program savings that are achieved; and research activities to refine savings and cost benefit models and identify additional opportunities for energy efficiency.

The approach for measurement and evaluation of the EE programs is to integrate data collection and tracking activities directly into the program implementation process. In fact, Commission Decision No. 69663 (June 28, 2007) requires APS to

> Use measured savings obtained from APS customers by the [MER] contractor beginning no later than July 1, 2007; and that the averages of actual measured usage, for both standard and upgraded equipment, should be recalculated by the [MER] from usage samples for each prescriptive measure based on new measurements from the field no less frequently than every two years.

APS integrates the most recent annual MER adjustments and process and impact findings in its annual Implementation Plan.

APS proposes to maintain a MER budget similar to the most recent program years to cover ongoing MER activities associated with the EE programs. For the DR programs, APS will perform measurement and verification of the peak load reduction with detailed modeling and statistical techniques. Costs for this activity will be built into the DR program budget.