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BEFORE THE ARIZONA CORPORATION COMMISSION

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2010 DEC -9 P 4:44

AZ CORP COMMISSION
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IN THE MATTER OF THE APPLICATION
OF ARIZONA PUBLIC SERVICE
COMPANY FOR APPROVAL OF THE
COMPANY'S 2011 DEMAND SIDE
MANAGEMENT IMPLEMENTATION PLAN -
RESIDENTIAL HEATING VENTILATION
AND AIR CONDITIONING DIAGNOSTIC
MEASURE

DOCKET NO. E-01345A-10-0219

**COMMENTS ON STAFF'S
PROPOSED ORDER**

Arizona Corporation Commission

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I. INTRODUCTION.

On June 1, 2010, Arizona Public Service Company ("APS" or "Company") filed an Application for approval of the Company's 2011 Demand Side Management Implementation Plan ("2011 Plan"). The 2011 Plan was filed in compliance with provisions of the Settlement Agreement in the Company's most recent rate case approved by the Arizona Corporation Commission ("Commission") in Decision No. 71448, December 30, 2009. APS is providing these comments in response to Staff's Proposed Order dated December 3, 2010.

On December 3, 2010, Utilities Division Staff ("Staff") filed its third Memorandum and Recommended Order ("Staff's Proposed Order") in this matter addressing APS's proposed new residential programs or program measures. These included: (i) Multi-Family Energy Efficiency Program; (ii) Shade Tree Pilot Program; and (iii) Heating, Ventilating, and Air Conditioning Diagnostic ("HVAC Diagnostic") measure. The HVAC Diagnostic measure would be a new measure in APS's Residential Existing Homes DSM Program.

Staff's Proposed Order would approve the proposed Multi-Family Energy Efficiency Program and the Shade Tree Pilot Program with some modifications. However, Staff

1 recommends against approval of the proposed new Residential HVAC Diagnostic Measure.
2 Staff's recommendation was premised on concerns with the measure's cost-effectiveness and
3 APS's proposed contractor incentive.

4 APS is aware of the time constraints and the enormous volume of Staff effort
5 employed in reviewing the Company's Application. Further, APS is in agreement with most
6 of the conclusions reached in Staff's Proposed Order. APS, however, strongly disagrees with
7 the Staff recommendation that the Residential HVAC Diagnostic measure not be approved,
8 and believes that this measure will deliver cost-effective energy savings to the Company's
9 customers in Arizona just as similar measures are currently delivering cost-effective energy
10 efficiency savings in other utility service territories.

11 **II. THE PROPOSED RESIDENTIAL HVAC DIAGNOSTIC MEASURE.**

12 The proposed Residential HVAC Diagnostic measure would provide APS residential
13 customers with a financial incentive to have an advanced diagnostic tune-up on their existing
14 air conditioning or heat pump unit to make it operate more efficiently, reducing both demand
15 and energy consumption. The main components of this proposed new measure are: (i)
16 correction of the refrigerant charge; (ii) leak repair (if necessary); (iii) air flow verification
17 and adjustment; and (iv) condenser coil cleaning. Actual savings from the tune-up are
18 measured and recorded by advanced diagnostic equipment by taking measurements both
19 before and after the work is performed. Unlike a typical tune-up, durable and lasting repairs
20 are made to the unit to make it run more efficiently. These lasting physical changes made to
21 the equipment justify the six-year measure life used by both APS and Staff.

22 **III. THE MEASURE IS DELIVERING COST-EFFECTIVE SAVINGS** 23 **ELSEWHERE.**

24 Proven measures similar to APS's proposed Residential HVAC Diagnostic measure
25 are delivering cost-effective energy savings in the following other service territories:

- 26 • NV Energy, (Las Vegas)
27 AC Check-up Program

28

- 1 • Southern California Edison, (Southern California)
Single Family Refrigerant Charge and Duct Sealing Program
- 2 • Pacific Gas and Electric, (California)
3 Air Conditioner Refrigerant Charge and Airflow Program
- 4 • National Grid, (Massachusetts)
5 Cool Smart Program

6 **IV. APS FOUND THE MEASURE TO BE COST-EFFECTIVE.**

7 APS found the Residential HVAC Diagnostic measure to be cost-effective with a
8 Societal Cost Test result of 1.2. Staff's analysis resulted in 0.996, just four-tenths of one
9 percent short of the 1.0 normally required to prove cost-effectiveness. Differences in the APS
10 analysis and the Staff analysis¹ result in the measure falling just short of cost-effective by
11 Staff's test. APS supports approving the measure as a pilot. That would shift the final
12 determination of cost-effectiveness until after the actual energy savings experienced by APS
13 customers could be obtained through the measurement, evaluation and research ("MER")
14 process.²

15 **V. THE MEASURE WOULD PRODUCE ENERGY AND ENVIRONMENTAL SAVINGS.**

16 APS energy, peak demand, and environmental savings estimates are based on
17 performing 5,300 tune-ups in 2011. APS customers would save 3,182 MWh in annual energy
18 savings and 19,092 MWh in lifetime energy savings from tune-ups performed during 2011.
19 Annual peak demand savings would be 2.5 MW. Environmental savings would include: (i)
20 85 lbs. of Sox; (ii) 1,614 lbs. of NOx; (iii) 17 million lbs. of CO₂; (iv) 472 lbs. of PM10; and
21 (v) 6 million gallons of water. If measurement of actual energy savings in the field confirms
22 that cost-effective energy savings are being delivered, full-scale rollout of the program would
23

25 ¹ Differences between the APS and Staff analyses center on different values for the societal discount rate and on treatment
26 of the \$1,000 Contractor Incentive. Members of the DSM Collaborative Group have been preparing a "White Paper" on a
27 standard cost-effectiveness test model and a set of measurement inputs, or input standards, which could be agreed upon
and used by both the utilities and Staff. Such a mechanism could eliminate duplication of effort and could give utilities
some assurances that Staff would find their pre-screened measures and programs cost-effective.

28 ² APS will be monetizing additional externalities when it performs its cost-effectiveness tests for its 2012 Implementation
Plan filed in June 2011. This will have the effect of increasing the Societal Cost Test results for all measures, and could
make a significant difference in a measure such as this one.

1 follow with the potential for even higher energy and environmental savings. APS requests
2 that the Commission allow it to capture these savings.

3 **VI. APS PROGRAM MODIFICATIONS.**

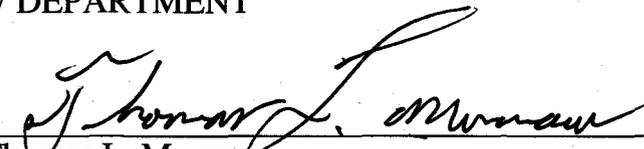
4 In order to move forward with utilization of the measure and to address Staff's
5 concerns, APS would be agreeable to introduce the measure as a pilot program, and would
6 base continuation of the program on actual MER measurements of customer energy savings.
7 The program is currently constructed like a pilot, with three distinct phases: (i) a Limited
8 Rollout Phase; (ii) a Measurement, Evaluation, and Verification of Savings Phase; and (iii) an
9 Unlimited Measure Implementation Phase, based on the results of the measurement phase.
10 Additionally, APS would be willing to eliminate its proposed \$1,000 incentive to contractors
11 from the proposed measure, if that incentive is of concern to the Commission.

12 **VII. CONCLUSION.**

13 APS strongly urges the Commission to approve the Residential HVAC Diagnostic
14 measure. APS has proposed an amendment as Attachment A that would result in approval of
15 the Residential HVAC Diagnostic measure as a pilot. This is a proven measure used to
16 deliver cost-effective energy savings in other states and should be saving energy in APS's
17 service territory, as well. The measure was found to be cost-effective by APS and was found
18 to be close enough to cost-effective by Staff to justify implementation as a pilot. As a pilot,
19 the Residential HVAC Diagnostic measure could deliver energy savings to APS customers
20 and could contribute to APS efforts to meet its Energy Efficiency goals for 2011 and
21 subsequent years.

22 **RESPECTFULLY SUBMITTED** this 9th day of December 2010.

23 **PINNACLE WEST CAPITAL CORPORATION**
24 **LAW DEPARTMENT**

25
26 By: 

27 Thomas L. Mumaw

28 Attorney for Arizona Public Service Company

1 ORIGINAL and thirteen (13) copies
2 of the foregoing filed this 9th day of
3 December 2010, with:

4 Docket Control
5 ARIZONA CORPORATION COMMISSION
6 1200 West Washington Street
7 Phoenix, Arizona 85007

8 And copies transmitted to
9 All Parties of Record

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ATTACHMENT A

**Arizona Public Service Company
Application for Approval of Its
2011 Demand Side Management Implementation Plan
Residential HVAC Diagnostic Measure
Docket No. E-01345A-10-0219**

Proposed Amendment # 1

Page 23, Line 10 - 11

DELETE:

“is not approved”

INSERT:

“be approved as a pilot, and be evaluated through actual measurement and verification to ensure that, in practice, it is cost effective and should be continued”

INSERT new Ordering Paragraph:

“IT IS FURTHER ORDERED that the Residential HVAC Diagnostic measure be continued until further Order of the Commission, unless found through the measurement and verification process to be not cost effective, it which case it should be terminated as soon as practical.”

Make conforming changes as necessary.