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BEFORE THE ARIZONA CORPORATION COMMISSION

KRISTIN K. MAYES
Chairman
GARY PIERCE
Commissioner
PAUL NEWMAN
Commissioner
SANDRA D. KENNEDY
Commissioner
BOB STUMP
Commissioner

Arizona Corporation Commission

DOCKETED

DEC 23 2009

DOCKETED BY
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IN THE MATTER OF THE APPLICATION
OF ARIZONA PUBLIC SERVICE
COMPANY FOR APPROVAL OF ITS 2010
ENERGY EFFICIENCY
IMPLEMENTATION PLAN

DOCKET NO. E-01345A-08-0172

DECISION NO. 71444

ORDER

Open Meeting
December 15 and 16, 2009
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

Background

1. Arizona Public Service Company ("APS" or "the Company") provides electric service within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission ("Commission").

2. On July 15, 2009, APS filed an application in compliance with the provisions of the Proposed Settlement Agreement (the "Settlement Agreement") filed on June 12, 2009, in the APS Rate Application Docket (Docket No. E-01345A-08-0172). The APS 2010 Energy Efficiency Implementation Plan ("the Plan") sets out the programs and measures by which APS plans to meet the energy savings goals agreed upon in the Settlement Agreement.

3. APS provides service in the counties of Apache, Cochise, Coconino, Gila, La Paz, Maricopa, Navajo, Pima, Pinal, Yavapai and Yuma. The Company services over 1.1 million

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1 customers in Arizona, including approximately 978,000 Residential and 119,000 Commercial
2 customers.

3 Settlement Agreement Requirement

4 4. The Demand-Side Management (“DSM”) provisions of the Settlement Agreement
5 required that the Plan include the following general elements: new or expanded programs and
6 program elements necessary for achieving the 2010 energy efficiency goals; the estimated energy
7 savings by program; and a range of estimated program costs by program necessary to meet the
8 goals.

9 5. Signatories to the Settlement Agreement agreed that the Plan should, at a minimum,
10 include the following specific elements:

- 11 • A customer repayment/financing program element for schools, municipalities
12 and small businesses fully integrated in the non-residential programs;
- 13 • A goal to install DSM measures through existing or enhanced program
14 measures for at least 100 schools by December 31, 2010;
- 15 • A review of the APS low-income weatherization program for possible
16 enhancement;
- 17 • A Residential Existing Homes Program with the new Home Performance
18 element and the existing HVAC element, with a goal of serving 1,000 existing
19 homes by December 31, 2010;
- 20 • A *non-residential* high performance new construction program element with a
21 second tier of performance and a higher financial incentive; and
- 22 • A *residential* high performance new home program element with a second tier
of performance and a higher financial incentive, which APS was to file with the
Commission on or before June 30, 2009.

23 Scope of Review

24 6. To expedite implementation of new programs, new portfolio components and
25 program enhancements, Staff has reviewed the following four Implementation Plan elements for
26 this document:

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1 Residential

- 2 • Low income Weatherization (existing program; multiple enhancements)
- 3 • Appliance Recycling (new program)

4 Non-Residential

- 5 • Schools program (existing program; increase in customer cap)
- 6 • Self Direction (new portfolio component)

7 7. Summarized descriptions will be provided for existing programs, but the focus of

8 Staff's review and analysis will be new programs, new portfolio components and program

9 enhancements. Measures previously determined by Staff to be cost-effective will not be re-

10 evaluated for cost-effectiveness at this time, unless new information indicates that re-evaluation is

11 necessary.

12 8. The remaining plan elements will be addressed in a later document. These are

13 listed below:

14 Residential

- 15 • Consumer Products (existing program; three new measures)
- 16 • Residential Existing Homes (existing program; adds Home Performance
- 17 enhancement)
- 18 • Residential New Construction (existing program; Energy Star Plus)

19 Non-Residential

- 20 • Non-Residential New Construction (existing program; adds second performance
- 21 tier)
- 22 • Non-Residential Customer Repayment Financing Program (new portfolio
- 23 component)

24 Overall Portfolio

- 25 • Demand-Side Management Adjustor charge (recovery for program costs)
- 26 • Performance Incentive
- 27 • Budget increases for existing programs.
- 28 . . .

RESIDENTIAL PROGRAMS

Low Income Weatherization

9. The Settlement Agreement provides that the APS low income weatherization program should be reviewed for possible enhancement. (14.11)

10. Existing Program Description. The current APS low-income weatherization program (also known as the "Energy Wise Low Income Assistance Program") was approved most recently in Decision No. 68647, but a version of the APS low-income weatherization program has been in place since late 1998.

11. The existing program provides four types of assistance to low-income customers:

- Weatherization: Although the APS Energy Wise program is independent of the federal Weatherization Assistance Program ("WAP"), the weatherization program is conducted in accordance with WAP rules. Weatherization includes installation of measures designed to improve energy efficiency, such as insulation and sunscreens, along with repairs and improvements to the building envelope. General repairs allowed under program rules include roof repairs and repair or replacement of windows and doors. Repair or replacement of ceilings in order to support insulation is permitted, as is repair or replacement of structurally unsound floor areas.
- Health and Safety: provides for installation of energy-efficient window unit air conditioners and heat pumps prescribed by a medical doctor;
- Repair and Replacement: provides for repair or replacement of air conditioners, heat pumps, evaporative coolers, refrigerators and water heaters. Replacement is allowed only when the cost of repair exceeds the cost of replacement, when repairs would not render the appliance operable, or when the appliance would be unsafe, even if repaired;
- Bill Assistance: provides crisis bill assistance of up to \$400 once in a 12-month period to low income families. Crises are defined as (i) loss or reduction of income; (ii) unexpected or unplanned expenses resulting in a lack of resources; or (iii) a condition that endangers the health or safety of the household.

12. There is a \$6,000 per-home cap and the program is delivered through local community action agencies. The Arizona Community Action Association ("ACAA") manages the contracts for the APS weatherization and bill assistance programs, and contracts directly with the community action agencies for weatherization work. The ACAA then ensures that the work

...

1 done meets program requirements, receives all the invoices from the various agencies and submits
2 the invoices to APS for payment.

3 13. Program Enhancements. The Company proposes to make the following changes to
4 its existing weatherization program.

- 5
- 6 • Increase to 200% of Federal Poverty Level: APS has proposed that the income
7 eligibility guideline be changed from the current 150% of the Federal Poverty
8 Level ("FPL") to 200% of the FPL. The change will allow APS to maintain
9 consistency with WAP rules, eliminate the administrative issues that arise from
10 having different eligibility guidelines, and qualify more individuals to
11 participate in the Energy Wise program. (The proposed change to the income
12 eligibility guideline for weatherization does not apply to the Bill Assistance
13 component of the Low Income Weatherization program. Bill Assistance for
14 customers in the 150%+ to 200% of FPL income range will be funded by APS,
15 as addressed in the Settlement Agreement.)

- 16 • Evaporative Cooler to Heat Pump/Air Conditioner Conversions: In the
17 Implementation Plan, APS originally proposed to convert evaporative coolers to
18 energy efficient heat pumps, with 50% considered to be weatherization and 50%
19 to be considered health and safety. The Company has restated its proposal so
20 that evaporative coolers would be replaced with air conditioners in homes with
21 gas heating, and with heat pumps in homes with electric heat, in order to
22 address concerns over fuel switching.

23 The current low income weatherization program only allows for conversion of
24 evaporative coolers as a health and safety measure, with a doctor's note (and
25 with none of the cost counting toward weatherization.)

- 26 • Multifamily Housing: APS is proposing to provide a weatherization funding
27 pool for non-profit 501c3 housing authorities, in order to weatherize multi-
28 family housing projects owned by the housing authorities. APS is proposing a
budget of \$720,000, to weatherize 200 units at an average cost of \$3,000 per
unit. Under the Company proposal, \$600,000 would go to weatherization of
multi-family housing units, while 20% of that amount, or \$120,000 would go to
delivery costs.
- Refrigerator Replacement: APS has proposed that refrigerator replacement be
allowed as part of weatherization, rather than only as a repair and replacement
measure.
- Weatherization Kits: APS has proposed a \$37,500 budget for weatherization
kits containing low flow showerheads, CFLs, outlet insulation pads and other
energy saving devices. In discussions with Staff, APS has explained that the
weatherization kits are not intended to contain a standard selection of items, but
rather to reflect the needs of the local community, as expressed by the
participating community action agency.

Under this proposal, families prequalified for weatherization would receive weatherization kits from the weatherization provider, who would be responsible for training and follow-up on use of the kits. APS proposes that 500 kits be distributed, each worth approximately \$75.

- Marketing and Consumer Education: APS proposes an additional \$10,000 to increase its marketing efforts designed to help low income customers become more energy efficient and aware. These efforts would include increased consumer education, including promotions, demos, weatherization seminars, distribution of the weatherization kits and outreach efforts targeting the multi-family housing segment.

Budget Allocation, Current and Proposed

Proposed increases to the Weatherization budget are listed by category in the table below, in bold.

Category	Budget as of Decision No. 68647 (Current)	Proposed Increased Marketing	Proposed Increase to 200% of FPL	Proposed Multifamily	Proposed Refrigerator Replacement (as weatherization)	Proposed Weatherization Kits	Total Summary by Category
Weatherization	\$479,400		\$333,000*	\$600,000	\$45,000	\$37,500	\$1,494,900
Health and Safety	\$14,100						\$14,100
Repair and Replace	\$70,500						\$70,500
Program Delivery	\$141,000		\$67,000*	\$120,000			\$328,000
Bill Assistance	\$250,000						\$250,000
Third Party Management	\$50,000						\$50,000
Training Tech. Support. MER	\$10,000						\$10,000
Marketing and Promotion	\$10,000	\$10,000					\$20,000
APS Administration	\$75,000						\$75,000
Totals: New/ Proposed	\$1,100,000	\$10,000	\$400,000	\$720,000	\$45,000	\$37,500	\$2,312,500

*Changed to reflect lower program delivery and higher implementation costs. Now consistent with delivery costs for the Multifamily component.

Staff Analysis and Recommendations on Proposed Program Enhancements

14. Increase to 200% of FPL. Under the current income guidelines, in order to be eligible for the weatherization program, a family of two could make \$21,855, or 150% of the FPL of \$14,570. Under the change proposed by APS (and already adopted at the federal level), the

1 eligibility level for a family of two would be raised to \$29,140. For a family of four, the eligibility
2 level would change from \$33,075 to \$44,100 (based on the 2009 FPL of \$22,050).

3 15. APS states that the increase to 200% of FPL is intended to help working poor
4 customers who have been struggling, but unable to qualify for weatherization assistance. On an
5 administrative level, the current mismatch between federal and state eligibility standards means
6 that customers at 150% of FPL have to be tracked differently from customers at 200% of FPL, and
7 this creates an added burden for agencies with limited staffing.

8 16. Staff believes it is reasonable to revise eligibility standards upward for
9 Weatherization, Health and Safety, and Repair and Replacement, in order to avoid conflicting with
10 federal standards, and to broaden the range of customers eligible to receive weatherization services
11 and other assistance from the Energy Wise program. Staff has recommended that the eligibility
12 requirement be changed from 150% of FPL to 200% of FPL.

13 17. Evaporative Cooler Conversions: Heat Pumps and Air Conditioners. As stated
14 above, APS originally proposed to convert evaporative coolers to energy efficient heat pumps.
15 Since heat pumps provide both cooling and heating, their installation would not only replace the
16 evaporative coolers used in summer, but also the electric heaters or gas furnaces used in winter. In
17 the case of homes with gas furnaces, this would result in fuel switching, which is to say, moving a
18 customer from using one fuel source to another. In communications with Staff, APS indicated that
19 this was not the intent of the proposed enhancement, and added that the Company proposes to
20 replace evaporative coolers with electric heat pumps only in homes with electric heat. In homes
21 with gas heat, evaporative coolers would be replaced with air conditioners, thereby avoiding fuel
22 switching.

23 18. Replacing evaporative coolers with air conditioners in homes with gas heating also
24 avoids unnecessary expense and promotes a cost-effective approach to energy efficiency. Heat
25 pumps are generally more expensive than air conditioners, and are more likely to be cost effective
26 in homes where they are replacing electric heating.

27 19. Evaporative Cooler Conversion to Air Conditioners: Energy Efficiency Concerns.
28 The main issue with respect to converting from evaporative coolers to air conditioners is that air

1 conditioners generally use more power than do evaporative coolers. According to the U.S.
2 Department of Energy website:

3 “Evaporative coolers cost about one-half as much to install
4 as central air conditioners and use about one-quarter as much
5 energy. However, they require more frequent maintenance
6 than refrigerated air conditioners and they’re suitable only for
7 areas with low humidity.”

8 20. Conversions made necessary by health and safety considerations are, and would
9 remain, a reasonable expenditure of weatherization funds. But Staff is concerned that replacing
10 evaporative coolers with either air conditioners or heat pumps is likely to *increase* energy usage in
11 many homes, meaning that allowing conversions on the expanded basis proposed by APS could
12 work against the basic goal of the energy efficiency implementation plan.

13 21. Reasons for Evaporative Cooler Conversion. Staff was informed by weatherization
14 stakeholders that crews fully audit homes before any work is done and that measures that would
15 not be energy efficient are either not performed, or performed using non-weatherization funding,
16 such as funding for health and safety or repair and replacement. Information from weatherization
17 stakeholders indicates that converting to air conditioning can result in lower energy bills, if the
18 conversion is combined with other weatherization measures, such as improved attic insulation,
19 tighter and more insulated duct work, reduced air infiltration, elimination of room pressures and
20 the installation of programmable thermostats and shade screens. A weatherization agency noted a
21 50% reduction in the utility bills of a home during summer where the evaporative cooler was
22 replaced and the above weatherization measures were also installed. If such savings can be
23 documented consistently, conversion may be justified from an energy use standpoint, taking into
24 account other weatherization activities, and keeping in mind that evaporative coolers considered
25 for replacement would be old, inefficient and/or poorly maintained due to limited customer
26 resources.

27 22. It was also noted by weatherization stakeholders that evaporative coolers can run
28 constantly, as compared to air conditioners. (Although Staff notes that evaporative coolers are, like
29 air conditioners, equipped with thermostats.) Another consideration in favor of conversion is that

1 evaporative coolers require an open system, which tends to leak, and makes a home with an
2 evaporative cooler less energy efficient during the winter. Higher water usage and higher water
3 bills were also cited as reasons for conversion.

4 23. Although not directly related to energy efficiency, another reason for conversions is
5 the increased risk of water damage and mold associated with evaporative coolers. These problems
6 are more likely to occur for some low income customers, who may find it difficult to keep up with
7 the more frequent maintenance required by evaporative coolers, for either financial reasons, or
8 because they are physically unable to attend to maintenance themselves. (Conversions made on
9 this basis should be classified as health and safety measures.)

10 24. Staff Recommendation. Although Staff takes into account the concerns expressed
11 regarding evaporative coolers, these concerns would not justify performing evaporative cooler
12 conversions as a matter of course, or the automatic crediting of 50% of such conversions to
13 weatherization costs. Staff has recommended that evaporative cooler conversion be restricted to
14 home (or multifamily) weatherizations which produce energy savings and lower energy bills for
15 low income customers, unless evaporative cooler conversion is necessary for the health or safety
16 of low income customers.

17 25. Staff is concerned about the possible impact of evaporative cooler conversions on
18 low-income customer energy bills. In order to confirm that these conversions are, in fact,
19 providing savings for low-income customers, energy savings should be verified based on lower
20 energy bills or lower energy usage following weatherization. (A representative sampling of
21 weatherizations featuring evaporative cooler conversions should be reviewed for this purpose.)

22 26. Any conversion that does not produce such energy and cost savings for low income
23 customers should be classified as a Health and Safety expenditure and would not be included in the
24 program costs used to calculate the cap on the performance incentive. If energy savings have been
25 confirmed, Staff recommends that the cost of conversion can be credited to weatherization and
26 may be included as a program cost for purposes of calculating the cap on the performance
27 incentive.

28 ...

1 27. Multifamily Housing. Making multifamily housing eligible for the low-income
2 weatherization program would provide for economies of scale, making weatherization measures
3 more cost-effective. Servicing multiple homes at the same location would make it practical to
4 weatherize more households, more efficiently, and at lower cost. The addition of this program
5 element would also open up participation to low-income apartment dwellers, a customer segment
6 with generally limited opportunities to participate in, or benefit from, energy efficiency programs.

7 28. Staff questioned the 20% of the Multifamily budget for delivery costs. In its
8 response, APS stated that the proposed costs are "consistent with the current weatherization
9 program" and that monies for administrative costs would be paid to the community action agency
10 managing a multifamily weatherization project.

11 29. Staff has recommended that the multifamily housing program component be
12 approved by the Commission. Staff has also recommended that the same guidelines governing the
13 use of DSM funds for single family housing be applied to multifamily housing.

14 30. Refrigerator Replacement. Under current program guidelines, refrigerators are
15 replaced only when repair costs would exceed the replacement cost, or when the refrigerator would
16 be inoperable or unsafe, even if repaired. As a proposed enhancement, refrigerators could be
17 replaced as a weatherization measure, in order to enhance the energy efficiency of the homes being
18 weatherized.

19 31. APS proposes a budget of \$45,000 for this component, projecting a maximum of
20 300 replacements at a cost of \$150. In response to a Staff inquiry regarding the estimated \$150
21 replacement cost, the Company stated this was an average cost for the typically smaller units found
22 in homes being weatherized.

23 32. Based on current data, Staff analysis indicates that replacement of older and
24 inefficient refrigerators is likely to be cost-effective. Staff has recommended that a working
25 refrigerator be replaced only when the energy savings provided over the lifetime of a new
26 refrigerator exceed its entire cost, as opposed to only the incremental cost of a more efficient unit.
27 (This recommendation excepts instances where refrigerator replacement would be allowable as a
28 Repair and Replacement measure.)

1 33. Staff has also recommended that, if feasible, refrigerators replaced as part of the
2 Low Income Weatherization Program be disposed of so that they do not remain on the market.
3 When possible, these refrigerators should be recycled using the same recycling concern that would
4 decommission and process refrigerators from the Residential Appliance Recycling Program.

5 34. Staff has also recommended that low income customers participating in the Low
6 Income Weatherization program also be eligible to participate in the Appliance Recycling
7 program, if the home being weatherized includes appliances meeting the Appliance Recycling
8 program's eligibility requirements. (For example, to be eligible, refrigerators would have to be
9 working second refrigerators and between 10 and 30 cubic feet in capacity; they would also have
10 to be removed from the home and taken out of service.)

11 35. Weatherization Kits. Staff discussion with stakeholders indicates that two of the
12 measures proposed for inclusion in the weatherization kits are unlikely to be cost-effective, and
13 would be of limited value in improving energy efficiency. Outlet insulation pads are an ineffective
14 form of insulation and low flow showerheads may be difficult for some customers to install, or not
15 desired by the customer. (In addition, removing and replacing showerheads may cause leaks when
16 there is older, possibly galvanized, plumbing, in place.) Staff has recommended that outlet
17 insulation pads and low flow showerheads not be included in the weatherization kits.

18 36. A revised and flexible form for the weatherization kits is more likely to provide
19 energy savings and benefits to customers. Staff has recommended that APS consult with local
20 community action agencies in order to determine the types of low cost measures that should be
21 included, based on the areas where the kits would be distributed.

22 37. Examples of items that could be a part of the weatherization kits include CFLs and
23 information on how customers can improve energy efficiency. (CFLs should be accompanied by
24 specific guidance on where CFLs should be installed to provide the greatest benefit.) Local
25 community action agencies may limit the kits to CFLs and energy saving information, or request
26 other low cost items, such as refrigerator magnets with energy saving tips (to increase awareness
27 on a longer-term basis), and refrigerator thermometers (to help consumers to avoid overcooling).

28 ...

1 Participating community action agencies may also propose other weatherization items, which can
2 be included in the kits if APS determines that to do so would be reasonable on an economic basis.

3 38. Of the \$37,500 allocation proposed for weatherization kits, any funding not spent
4 after 500 kits have been distributed, or at the end of the program year, should be retained in the
5 Weatherization program and used for other weatherization activities.

6 39. Marketing and Consumer Education. APS has proposed to increase its marketing
7 and consumer education for the low income weatherization program, with more promotions and
8 events, including weatherization seminars. Increased marketing and consumer education activities
9 would include distribution of the weatherization kits. APS also plans to use the additional funding
10 in order to reach the multifamily housing segment and to provide funds to support community
11 action agency efforts to market their weatherization programs.

12 40. The existing budget for Marketing and Promotion is \$10,000, so the additional
13 \$10,000 proposed in the Implementation Plan would represent a doubling of expenditures in this
14 category, but would also be more reflective of the proposed overall budget increase of \$1,212,500,
15 from \$1,100,000 to \$2,312,500. The requested increase would also make it easier to reach the
16 multifamily housing customer segment proposed to be included in the weatherization program.

17 41. Staff has recommended that the increase in marketing and consumer education for
18 low-income customers be approved, but also has recommended that APS work to ensure that low
19 income customers have access to any proposed form of education, marketing or outreach. In
20 addition, Staff has recommended that APS describe its marketing and consumer education
21 activities and provide copies of brochures and other marketing materials in the semi-annual report
22 filed with the Commission, or any successive report ordered by the Commission.

23 42. The Commission believes that strong marketing and promotion efforts are a critical
24 component to meeting energy efficiency requirements. Accordingly, the Commission believes an
25 additional \$10,000, targeted to informing customers of the low income bill assistance program and
26 weatherization programs, should be incorporated. The additional \$10,000 should be derived from
27 funds reserved for the bill assistance program and not from an additional increase to the DSM
28 adjustor.

1 43. Low Income Weatherization Program Cost Components for Calculating
2 Performance Incentive. Weatherization measures are specifically designed to produce energy
3 savings, while health and safety measures and repair and replacement measures only create energy
4 savings under limited circumstances. Under the program in its current form, Weatherization costs
5 count toward the Company's DSM spending requirements. However, Health and Safety or Repair
6 and Replacement measures count toward the APS spending requirement only under the following
7 circumstances:

8 i. When installing (for Health and Safety) or replacing
9 an air conditioner, heat pump, or other appliance, APS may
10 only count the incremental cost between an average
11 appliance model and a more energy-efficient appliance
12 model toward its minimum DSM spending requirements.

13 ii. When repairing an appliance, costs for repairs may
14 only be counted as DSM if the repair results in a reduction of
15 energy use."

16 44. Staff has recommended that similar restrictions remain in place for the enhanced
17 Energy Wise program, under the new methodology for calculating performance incentives. As
18 noted in the Settlement Agreement, performance incentives are based on the Company's
19 achievements relative to its Energy Efficiency goals. Although the Company should recover the
20 cost of all its Health and Safety activities, spending that does not produce energy savings must be
21 excluded from the program costs used to calculate the cap on performance incentives. Repair and
22 Replacement costs should only be recovered and included in the program costs used to calculate
23 the cap on performance incentives if the result of a repair or replacement is a reduction in energy
24 use. Including spending unrelated to creating energy savings would ratchet up the cap on
25 performance incentives and may result in incentive dollars being paid out for activities that do not
26 produce energy savings.

27 45. Staff has recommended that, for purposes of calculating the cap on the performance
28 incentive, expenditures for the Health and Safety and Repair and Replacement components of the
weatherization program should only be included (i) to the extent of the incremental cost of the
...

1 higher efficiency equipment being used to replace an appliance (as compared to the cost of a
2 standard appliance); and (ii) to the extent that appliance repairs result in reduced energy use.

3 46. Bill assistance, although important to customer protection, also does not produce
4 energy savings. (In Decision No. 67744, bill assistance is counted toward spending requirements
5 because an earlier settlement agreement provided that Bill Assistance was to be treated as DSM.
6 The current Settlement Agreement makes no such provision.) Although the Company should
7 continue to recover the cost of the Bill Assistance component, Staff has recommended that Bill
8 Assistance not be included as a program cost for purposes of calculating the cap on performance
9 incentives. As with the Health and Safety, and Repair and Replacement components, including
10 such spending for Bill Assistance ratchets up the cap on performance incentives and may result in
11 incentive dollars being paid out for activities that do not produce energy savings.

12 47. Reporting Requirements. Staff has recommended that APS continue to report on
13 the Energy Wise program in its semi-annual report filed with the Commission, or in any
14 succeeding form of report ordered by the Commission, and that the reporting include information
15 and data on the new, or enhanced, program components approved by the Commission. The
16 information and data reported should include the number of customers participating, the level of
17 spending for energy efficiency measures, the level of spending associated with non-energy-
18 efficiency measures, the number of measures installed, by type of measure, and the estimated
19 energy and environmental savings arising from this portfolio component, along with any other
20 information necessary for the Commission to understand the progress and status of the program.

21 48. Staff has recommended that the Low Income Weatherization Program be approved,
22 with the program enhancements as modified by Staff recommendations.

23 Appliance Recycling

24 49. Description. This is a new program targeting APS Residential customers. APS
25 proposes to provide a \$30 incentive and free removal for working second refrigerators and freezers
26 in households. (Another advantage for customers is that it frees them from any municipal fees
27 they would otherwise have to pay for pick-up and disposal of old units.) APS projects that it will
28 have 9,516 participating units, consisting of approximately 8,564 refrigerators and 952 freezers.

1 50. APS also proposes to dispose of the old refrigerators and freezers, recycling them in
 2 order to remove inefficient appliances permanently from the market. Currently, discarded
 3 appliances are shipped out of state for recycling, but appliance recyclers have indicated that the
 4 additional volume from the APS program would justify an *in-state facility*. APS has requested that
 5 an implementation contractor build a new recycling facility in Arizona, to create jobs in Arizona,
 6 limit transport costs and decrease the environmental impact of shipping old appliances long
 7 distances.¹ The appliance recycling contractor would own and operate the facility, verify customer
 8 eligibility and pick up the appliances.

9 51. *Eligibility*. The Appliance Recycling program is open to Residential customers in
 10 their own homes and renters. Although many apartment dwellers may not own the major
 11 appliances in their rental homes or unit, they will be eligible if they own appliances meeting
 12 program requirements. Landlords would also be eligible to participate, if they meet program
 13 requirements.

14 52. *Proposed Budget*. The proposed budget for the new Appliance Recycling program
 15 is shown in the table below:

Year	2010
Incentives	\$286,000
Consumer Education	\$19,000
Program Implementation	\$911,000
Program Marketing	\$182,000
Planning and Administration	\$30,000
Total Budget	\$1,428,000

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 21 53. *Cost-Effectiveness*. Second refrigerators and freezers are usually older models, and
 22 likely to be far less efficient than up-to-date efficiency appliances. Older appliances are also costly
 23 for consumers to operate. In one example, the Energy Star site estimates that a pre-1990 side-by-
 24 side refrigerator may cost \$17.55 a month to operate, while an Energy Star model from 2001 or
 25 later would cost \$6.63. Generally, Energy Star notes that a pre-1993 model refrigerator may cost
 26

27
 28 ¹ Appliance recyclers have estimated that it would take at least three to six months to build a local recycling facility. The program could start collecting appliance in six to eight weeks and would ship appliances out of state until the Arizona facility opened.

1 \$100 more to run, per year, than newer, efficient models. The existing inefficiencies of older
2 refrigerators and freezers may also be exacerbated by storage in garages or on porches, causing
3 them to expend more power in order to keep their contents cool, and making them even more
4 costly for consumers to operate.

5 54. APS estimates savings of 700 to 1,100 kWh. Staff calculations indicate that the
6 new program would be cost-effective, even based on the lower end estimate for kWh savings, with
7 a benefit to cost ratio of 2.05. At the high end of estimated savings, Staff estimates a benefit to
8 cost ratio of 3.08.

9 55. Federal Appliance Rebate Program. The federal government is working toward a
10 program offering rebates to consumers who buy energy-efficient appliances, including
11 refrigerators. APS conferred with the Arizona Energy Office and understands that AEO does not
12 anticipate requiring consumers to turn in old appliances in order to obtain rebates. The Company
13 also believes that participating retailers would neither require, nor have the ability to remove or
14 absorb the old appliances. If the program takes the form expected, and customers are not required
15 to turn in their old appliances, it is possible that the two programs would dovetail; participation in
16 the APS appliance recycling program would be enhanced, because rebates are available for
17 efficient appliances. At the same time, participation in the federal rebates program could be
18 enhanced, particularly by the ease with which old appliances could be disposed of through the APS
19 program.

20 56. The final details of the federal appliance program, if passed, are not known at this
21 time. APS has informed Staff that it will work to ensure that its refrigerator/freezer recycling
22 program will be positioned to benefit from any synergies made possible by a federal appliance
23 program.

24 57. Reporting. Staff has recommended that APS report on the Appliance Recycling
25 program in its semi-annual report filed with the Commission, or in any succeeding form of report
26 ordered by the Commission, and that the reporting include information and data on the new, or
27 enhanced, program components approved by the Commission. The information and data reported
28 should include the number of customers participating, the level of spending for energy efficiency

1 measures, the level of spending associated with non-energy-efficiency measures, the number of
2 measures installed by type of measure, and the estimated energy and environmental savings arising
3 from this portfolio component, along with any other information necessary for the Commission to
4 understand the progress and status of the program. Any ongoing problems and their proposed
5 solutions should also be reported.

6 58. Staff Recommendation. Staff has recommended that the Appliance Recycling
7 Program be approved, with the modifications recommended herein.

8 NON-RESIDENTIAL PROGRAMS

9 Self-Direction

10 59. Program Component Description. Self Direction is a new program component.
11 The Settlement Agreement states that large commercial or industrial customers using more than 40
12 million kWh per year should be allowed to self direct their DSM charges, based on an aggregation
13 of all the customer's accounts. This allows large customers to reserve 85% of their DSM
14 contributions for their specific use, for eligible energy efficiency projects at their own facilities.
15 Self direction is offered to commercial and industrial customers because they have the technical
16 knowledge, ability and resources to implement DSM programs.

17 60. The rules governing Self Direction include the following:

- 18 • After a customer informs APS of its intent to self-direct, 85% of that
19 customer's DSM contributions will be reserved for the customer's energy
20 efficiency projects, while 15% will be reserved to cover self-direction program
21 administration, management, verification, measurement and evaluation, and
22 low-income programs;
- 23 • Self Direction funds will be reserved for tracking purposes for the calendar
24 year the Self Direction election is received by APS, such election must be
25 received on or before December 1st. There will be no retroactive Self
26 Direction funds set aside from prior budget years since the books were closed
27 prior to the customer's election.
- 28 • Self Direction customers must continue to make their DSM contributions
through base rates and the DSMAC;
- Self Direction funds are paid once a year in December, after a DSM project
has been completed by the customer and then verified by APS. Funding will

1 be paid out each December, until the project is 100% funded, or until the tenth
2 year of funding.

- 3 • Once the final Self Direction payment has been made, the customer may apply
4 to continue in Self Direction. If the customer does not apply before December
5 1, then that customer will be eligible to participate in APS' Non-Residential
6 DSM programs beginning January 1.
- 7 • If the energy efficiency project is not completed within two years of the Self
8 Direction election date, then the Self Direction funds from the first calendar
9 year from the Self Direction election will not be available to the Customer and
10 will revert to the program account;
- 11 • Eligible customers must commit all their accounts and facilities for the period
12 of a Self Direction project, and are not permitted to participate in APS
13 Solutions for Business programs during the funding period for the project;
- 14 • Groups of customers may not form associations for the purpose of meeting the
15 Self Direction minimum of 40 million kWh, but a single large customer may
16 aggregate its accounts for this purpose.
- 17 • Self Direction projects must be cost-effective and meet the same requirements
18 as the Non-Residential Existing Facilities and Non-Residential New
19 Construction DSM Program, with the same prescriptive and incentive
20 measures. Annual customer incentive caps do not apply to Self Direction
21 funds.
- 22 • An energy efficiency project application must be filed within two years of
23 election, and include the following; the name of the customer, a description of
24 the project, its schedule and its scope, and the savings, cost and payback of the
25 project;
- 26 • APS will review and administer the Self Direction funding and accounting.
27 APS will verify that the technologies meet program specifications and that
28 savings claims are supported. APS will also provide measurement and
evaluation after a Self Direction project begins operation. Documentation
requirements will be identical to APS Non-Residential program requirements.
- All savings from self directed programs are to be claimed as part of the
Company energy efficiency portfolio targets.

25 Staff Analysis and Recommendations on Proposed Program Component

26 61. Other States. A 2009 American Council for an Energy Efficient Economy
27 ("ACEEE") study listed 17 states with Self Direction programs of various types, some more
28 structured and requiring significant measurement and verification, with others more loosely

1 structured and requiring little or no measurement and verification.² As a rationale for Self
2 Direction, the study cited the built-in incentive for large industrial customers to make energy
3 efficiency projects cost-effective, and the greater ability of such customers to meet their own
4 energy efficiency needs, as compared to *more general* publicly funded programs. A December
5 2008 policy brief by the Electricity Consumer Resource Council (“ELCON”) similarly sets out the
6 position that large industrial customers would opt for the most cost-effective measures as being “in
7 their own best interest”, and that larger customers needed energy efficiency projects tailored to
8 their particular industry or facility.³ In terms of concerns, ACEEE cites the impact on societal
9 benefits of Self Direct programs, including losses to general DSM revenue, and the issue of
10 funding for low-income, weatherization assistance, education and outreach.

11 62. Staff’s review indicates that the proposed Self Direction program component has
12 been designed to allow large customers to use their DSM contributions for projects that will meet
13 their energy efficiency needs. Staff also notes that the program component has been designed to
14 promote cost-effective projects, and to measure and verify project savings. A broader benefit is
15 also provided for, in that 15% of DSM contributions by Self Direction customers would be
16 retained, in part to cover low income program costs.

17 63. Aggregation. In response to a Staff inquiry, APS confirmed that a parent company
18 could aggregate the kWh usage of its subsidiaries to reach the 40 million kWh threshold. To do
19 so, APS would use the same criteria as is used for determining the customer cap, meaning by
20 limiting aggregation to related entities governed by the same decision-making entity.

21 64. Low Income Program Costs. The Settlement Agreement included language
22 indicating that the 15% retained from a customer opting for Self Direction would be used to cover
23 Self Direction program administration, management, verification, measurement *and low-income*
24 *program costs*. Staff notes, however, that the Implementation Plan omitted the language on low-
25 income program costs. In discussions with Staff, APS indicated that the language used was not

26
27 ² ACEEE, *Implementing Industrial Self-Direct Provisions*, Anna Chittum and R. Neal Elliot, Summer Study on
Energy Efficiency in Industry, July 30, 2009.

28 ³ ELCON, *Financing Energy Efficiency Investments of Large Industrial Customers: What is the Role of Electric
Utilities?*, December 2008.

1 intended to exclude low income programs from coverage by the 15% retained by APS. For
2 purposes of clarification, Staff has recommended that, as per the Settlement Agreement, the 15%
3 retained from customers opting for Self Direction be used to cover self direction program
4 administration, management and verification, measurement and evaluation *and low-income*
5 *program costs.*

6 65. DSM Funds To Be Used for Incremental Costs. In the Settlement Agreement,
7 Attachment C, paragraph 5 of the Self Direction Provisions states the following:

8 "Self Direction funds will be paid once a year in December
9 beginning in the year that the DSM project is completed and
10 verified by the APS Solutions for Business team. If project
11 costs exceed the credited amount in one year, then funding
12 will continue to be paid in December of each year until the
13 project is 100% funded or on the tenth year of funding,
14 whichever comes sooner."

15 For purposes of clarification, it should be understood that the project costs being funded at 100%
16 (or until the tenth year) include only the incremental cost of higher efficiency measures. For
17 example, Self Direction funds are not intended to pay for the entire cost of a new motor, but rather
18 for the difference between a standard motor and a more energy-efficient motor.

19 66. Reporting Requirements. Staff has recommended that APS address the Self
20 Direction component in its Demand Side Management Semi-Annual Report filed with the
21 Commission, or in any succeeding form of report ordered by the Commission. As per the
22 Settlement Agreement, all kWh, kW and environmental savings will count toward meeting the
23 APS energy efficiency targets, and will be reported as APS DSM/energy efficiency savings.

24 67. Although energy and environmental savings data for Self Directed projects should
25 be integrated with reporting for the Non-Residential Large Existing Facilities or New Construction
26 DSM Programs, there should also be reporting on the status and progress of Self Direction as a
27 separate program component. This reporting should include participation levels, the level of
28 spending, the number of measures installed (by type of measure), and the estimated energy and
environmental savings arising from this portfolio component, along with any other information or

...

1 data necessary for evaluation of the Self Direction program component. Any significant problems
2 and proposed solutions should also be reported.

3 68. Staff has recommended that the Self Direction component of the Energy Efficiency
4 Implementation Plan be approved, in accordance with the provisions of the Settlement Agreement,
5 and in accordance with Staff's clarifications and recommendations.

6 **SCHOOLS**

7 69. *Existing Program Description.* This program sets aside DSM funding exclusively
8 for all schools, including public schools, charter schools, and private schools to participate in the
9 Non-Residential programs.⁴ The program assists schools in reducing energy use in school
10 buildings, by providing schools with incentives for energy efficiency measures, such as upgrade to
11 lighting and HVAC. The program also provides educational and training materials to assist in
12 school conservation projects.

13 70. Schools are also allowed to participate in any Non-Residential DSM program, and
14 may do so before the Schools budget is fully subscribed and without districts reaching their caps.
15 Schools of any size may also participate in the Direct Install measure incentives available to other
16 Non-Residential customers.

17 71. In the APS Demand Side Management Semi-Annual Report for the first half of
18 2009, the Company states that, as of June 30th, it had received a total of 78 applications from 19
19 school districts, and paid out \$797,399 in incentives to schools (\$298,122 under the Schools
20 program and the remaining \$509,740 paid under the other Non-Residential programs). The
21 Company also reported annual kWh savings of 11,359,458 for school projects completed in the
22 first half of 2009. Lifetime kWh savings arising from these same school projects was reported at
23 177,740,605.

24 72. *Proposed Program Enhancements.* The Settlement Agreement provides the
25 following:

26 . . .

27 _____
28 ⁴ Decision No. 68488 states "The Commission directs that all schools, K through 12, in APS Service Territory are eligible for the Schools Program."

1 "A goal for APS to serve, meaning the installation of
 2 measures, through its existing DSM programs or enhanced
 3 program elements, at least 100 schools by December 31,
 2010."

4 In the Implementation Plan APS also proposes to raise the customer cap for the schools program
 5 from \$25,000 to \$100,000 per school district, in order to respond to the increased emphasis on
 6 energy efficiency for schools and in keeping with the increased Schools budget.

7 Proposed Schools Budget

8 73. The total proposed Schools Budget is set forth in the table below. The average
 9 annual budget cited in Decision No. 70666 is \$1,363,000, so the proposed budget of \$3,056,000
 10 represents an increase of approximately \$1,693,000.

Year	2010
Incentives	\$1,917,000
Training and Technical Assistance	\$40,000
Consumer Education	\$13,000
Program Implementation	\$781,000
Program Marketing	\$253,000
Planning and Administration	\$52,000
Total Budget	\$3,056,000

17 Analysis and Recommendations

18 74. Staff has recommended approving the APS proposal to raise the customer cap for
 19 the schools program from \$25,000 to \$100,000 per district. This is reasonable in light of the
 20 increase in the Schools budget and would facilitate reaching the 100-school minimum goal set
 21 forth in the Settlement Agreement.

22 Future Programs

23 75. In its application, the Company has proposed a customer repayment financing
 24 program element for schools, municipalities, and small businesses which will be integrated with
 25 the appropriate Non-Residential programs. Notably, the Company did not proposed similar
 26 measures for its residential programs and residential customers. While the Company's non-
 27 residential proposal is not addressed in the instant application, it should be addressed in a
 28 forthcoming proceeding.

ORDER

IT IS THEREFORE ORDERED that the proposed changes to the Low-income Weatherization program be approved, as discussed herein.

IT IS FURTHER ORDERED that the new Appliance Recycling program be approved, as discussed herein.

IT IS FURTHER ORDERED that the proposed changes to the Schools program be approved, as discussed herein.

IT IS FURTHER ORDERED that the Self Direction component of the Arizona Public Service Company Implementation program be approved, as discussed herein.

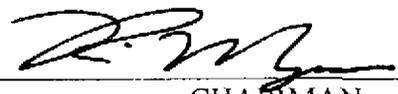
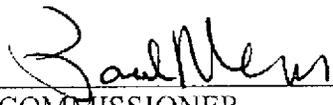
IT IS FURTHER ORDERED that Arizona Public Service Company file a residential repayment financing program, as a supplement to the 2010 implementation application, which will address timeframes for implementation of such a program and tariffs. The supplement shall include an option for on the utility bill repayment and an option which would allow customers the option to repay energy efficiency measures through a parallel bill in a manner similar to the utility bill. The Company shall file the supplement with Docket Control by February 26, 2010, for Commission consideration.

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1 IT IS FURTHER ORDERED that Arizona Public Service Company shall increase their
 2 marketing and promotion budget by \$10,000, target to informing customers of the low income bill
 3 assistance program and weatherization programs, should be incorporated. The additional \$10,000
 4 should be derived from funds reserved for the bill assistance program and not from an additional
 5 increase to the DSM adjustor.

6 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

7
 8 **BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

9
 10  CHAIRMAN  COMMISSIONER
 11
 12  COMMISSIONER  COMMISSIONER  COMMISSIONER
 13
 14

15 IN WITNESS WHEREOF, I, ERNEST G. JOHNSON,
 16 Executive Director of the Arizona Corporation Commission,
 17 have hereunto, set my hand and caused the official seal of
 18 this Commission to be affixed at the Capitol, in the City of
 19 Phoenix, this 23rd day of December, 2009.

20 
 21 ERNEST G. JOHNSON
 22 EXECUTIVE DIRECTOR

23 DISSENT: _____

24 DISSENT: _____

25 EOA:JMK:lhmfJFW

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 27
 28

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