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ARIZONA CORPORATION COMMISSION  
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5 Attorneys for Western Resource Advocates,  
6 Southwest Energy Efficiency Project, Arizona  
7 School Boards Association and Arizona  
Association of School Business Officials

8  
9 **BEFORE THE ARIZONA CORPORATION COMMISSION**

10 KRISTIN K. MAYES, *Chairman*  
11 GARY PIERCE  
12 PAUL NEWMAN  
13 SANDRA D. KENNEDY  
BOB STUMP

Docket No. E-01345A-08-0172

**POST-HEARING BRIEF**

14 IN THE MATTER OF THE APPLICATION  
15 OF ARIZONA PUBLIC SERVICE  
16 COMPANY FOR A HEARING TO  
17 DETERMINE THE FAIR VALUE OF THE  
18 UTILITY PROPERTY OF THE COMPANY  
19 FOR RATEMAKING PURPOSES, TO FIX A  
JUST AND REASONABLE RATE OF  
RETURN THEREON, TO APPROVE RATE  
SCHEDULES DESIGNED TO DEVELOP  
SUCH RETURN.

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21 Western Resource Advocates ("WRA"), Southwest Energy Efficiency Project  
22 ("SWEEP"), the Arizona School Boards Association ("ASBA") and the Arizona  
23 Association of School Business Officials ("AASBO") submit the following Post-Hearing  
24 Brief in support of the Settlement Agreement.  
25

1 **I. INTRODUCTION**

2 Each of the signatory parties submitting this brief participated extensively in the  
3 negotiations that culminated in the Settlement Agreement. To be sure, there was the  
4 normal give and take associated with settlement discussions but, ultimately, these parties  
5 adhered closely to the principles and objectives expressed in their pre-filed written  
6 testimony submitted last December. As a result, for these parties the Settlement  
7 Agreement represents less a negotiated resolution of their issues than a full incorporation  
8 of their objectives into the Settlement Agreement. In some areas like renewable energy,  
9 the settlement actually exceeds the direct testimony filed by the parties.

10 That is why the parties submitting this brief enthusiastically support the agreement  
11 without qualification or reservation. The agreement contains significant provisions that  
12 advance energy efficiency and renewable energy in APS' service territory as well as  
13 important provisions that will allow Arizona's public schools to more effectively manage  
14 their energy costs. The agreement incorporates the following benefits:

- 15 • Doubling the amount of renewable energy APS must obtain by 2015.
- 16 • A utility scale photovoltaic project, in-state wind energy, and distributed  
17 renewable energy projects producing 50,000 MWhs per year of energy savings for  
18 Arizona's public schools.
- 19 • A new standard for energy efficiency that establishes savings targets instead of  
20 spending levels that require existing and enhanced programs to produce savings of  
21 3.75% at the end of three years.
- 22 • An APS commitment to serving at least 1,000 homes within the next year with  
23 enhanced energy efficiency programs.
- 24 • Energy efficiency programs at 100 schools or more within the next year that  
25 require no up front costs to the schools.

These provisions and others are discussed in greater detail in the sections that follow.

1           The parties understand that the Commission may not view the Settlement  
2 Agreement as perfect. Further, we understand that the Commission has a responsibility  
3 to independently assess the agreement in order to determine that it is in the public  
4 interest. At the same time, the Commission should appreciate that the Settlement  
5 Agreement represents a balance of competing interests among the signatory parties. It is  
6 with those considerations in mind that the parties submitting this brief urge the  
7 Commission to refrain from material changes to the agreement that could have the  
8 potential for delaying or reducing the benefits for Arizona ratepayers that the agreement  
9 will provide immediately upon its approval and continuing over the next five years.

## 10 **II. RENEWABLE ENERGY (SECTION XV)**

11           Section 15.1 of the agreement requires APS to obtain about 10% of its energy  
12 needs from renewable resources by 2015. This is approximately double the Renewable  
13 Energy Standard (RES) requirement that 5% of retail sales be obtained from renewable  
14 resources by 2015.

15           Under the terms of the settlement, Section XV, APS is to make its best efforts to  
16 acquire new renewable energy resources with annual generation or savings of 1,700,000  
17 MWh to be in service by the end of 2015. *These new resources are in addition to:* (a)  
18 resources APS had in place as of the end of 2008, and (b) resources which APS had  
19 committed to by the end of 2008.

20           The renewable energy resources contemplated by the agreement are consistent  
21 with APS' resource plan and with WRA's analysis of the role of clean energy resources  
22 in Arizona (Berry direct testimony, p. 3). Renewable resources typically have fixed or  
23 stable costs which provide a hedge against volatile and uncertain fossil fuel prices for  
24 natural gas or coal-fired power plants. Because renewable resources typically have little  
25 or no air emissions, unlike conventional power plants that burn fossil fuels, they reduce

1 air pollution and consequently reduce the health and environmental impacts of power  
2 generation. Moreover, renewable resources would not incur the costs of controlling air  
3 emissions in contrast to fossil-fueled power plants (Berry, direct testimony, p. 2).

4 APS' new renewable resources include both distributed and non-distributed  
5 projects. APS is to report to the Commission on its plans for and progress toward  
6 acquiring the new renewable energy resources in its Renewable Energy Standard  
7 Implementation Plans and Compliance Reports and in future resource planning filings.

8 The agreement specifies some (not all) of the new resources APS will seek to acquire:

- 9 • A utility scale photovoltaic project.
- 10 • In-state wind energy.
- 11 • A solar energy program for on-site projects at grade K through 12 public schools.  
12 Projects could include photovoltaic, solar hot water, and day-lighting. The  
13 program goal is to install projects producing 50,000 MWh per year of energy  
14 savings or generation within 36 months of program approval by the Commission.  
15 This program will be developed so that up-front customer costs are eliminated,  
16 thereby making it easier for schools to participate. APS is to consider a request for  
17 proposals by project developers to implement and install solar energy systems on  
18 multiple schools.
- 19 • A distributed solar energy program for government structures that reduces or  
20 eliminates up-front customer costs.

21 The agreement also indicates that, following submission of the Biennial  
22 Transmission Assessment report required by Decision No. 70635, APS will commence  
23 planning and permitting for siting one or more new transmission lines or upgrades  
24 intended to facilitate delivery of renewable energy to APS and will construct these lines  
25 or upgrades after satisfactory permitting and authorizations are obtained.

In general, APS will either bring specific projects to the Commission for review,  
including those identified in the Settlement Agreement, or will include resources in its

1 Renewable Energy Standard implementation plans, filed pursuant to A.A.C. R14-2-1813,  
2 that will be reviewed by the Commission.

3 Typically, APS would recover costs through its Renewable Energy Standard  
4 (RES) tariff and the Power Supply Adjustor.<sup>1</sup> Transmission costs may be recovered  
5 through the Transmission Cost Adjustor.

6 On September 30, 2009 APS issued a news release indicating that Starwood  
7 Energy Group Global, LLC was unexpectedly terminating its agreement with APS to  
8 build a 290 MW concentrating solar power plant whose output would have been sold to  
9 APS. APS' president stated that "APS remains committed to solar energy and we intend  
10 to aggressively respond to this development as we stay on track with our plans to increase  
11 the amount of renewable energy we provide to customers." We believe that, under the  
12 agreement, APS is obligated to make its best efforts to replace the Starwood resource to  
13 meet the targets and deadlines set forth in the agreement.

14 In sum, the benefits of the renewable energy goals in the Settlement Agreement  
15 are that: (1) APS' renewable energy plans through 2015 are reasonable, (2) the  
16 agreement commits APS to implement its resource plan with regard to renewable energy  
17 through 2015, and (3) the agreement identifies some specific projects that were  
18 characterized generically in the resource plan.

19 **Demand Response (Section XX)**

20 Section XX of the Settlement Agreement includes an optional super peak time of  
21 use rate for residential customers and optional critical peak pricing programs for  
22 residential and nonresidential customers. The super peak pricing program charges a very  
23

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24 <sup>1</sup> The current practice is that the RES tariff recovers costs in excess of the market cost of  
25 comparable conventional generation and the remainder of the cost is recovered through  
the Power Supply Adjustor.

1 high rate during the period from 3:00 p.m. to 6:00 p.m. on weekdays from June through  
2 August (the super peak period). However, off-peak rates are lower than off-peak rates  
3 under residential time of use rate ET-2, so participating customers could save money by  
4 shifting load to off-peak hours. With critical peak pricing, APS notifies participating  
5 customers of critical events. Critical events may be called for the afternoon and early  
6 evening on summer weekdays and would occur as a result of severe weather, high loads,  
7 high wholesale prices, or major generation or transmission outages. The number and  
8 hours of critical events are limited by the terms of the rate schedules. Energy used during  
9 critical events is charged at a very high rate, thereby discouraging customers from using  
10 electricity during a critical event. As an incentive to customers to participate in critical  
11 peak pricing programs, APS offers a discount to the customer's total monthly kWh  
12 during the summer.

13         The agreement requires that demand response programs be offered and marketed  
14 jointly with energy efficiency programs to increase the chance that participants also save  
15 energy. By offering the demand response and energy efficiency programs together, APS  
16 will increase the benefits of its demand side management activities for both itself and its  
17 customers. Additionally, the agreement requires APS to prepare a study on the impacts  
18 of demand response rates on the mix of power generation sources, and to determine  
19 whether more coal-fired generation is used as a result of these rates. The study will  
20 include estimates of impacts of the new rate schedules on air emissions including carbon  
21 dioxide, sulfur dioxide, nitrogen oxides, particulate matter, and mercury. APS is to also  
22 analyze the impacts of the demand response rates on overall energy usage for participants  
23 and identify methods to better integrate its demand response and energy efficiency  
24 programs. Finally, the study will analyze the benefits of the demand response rates,  
25

1 taking into account avoided or deferred generating capacity costs and fuel and other  
2 variable cost savings.

### 3 **Additional Renewable Energy Issues**

4 Several renewable energy issues were raised concerning the settlement over the  
5 course of the proceedings. Among these issues is using the rate case to set a higher  
6 renewable energy target for 2025. WRA believes that the Commission should address  
7 any higher target for APS and perhaps other utilities in a separate proceeding where the  
8 pertinent factors can be explicitly considered and a solid basis for a new standard can be  
9 established. For example, some stakeholders, such as renewable energy contractors and  
10 developers, are not parties to the current APS rate case and they should have the  
11 opportunity to address changes in the renewable energy goals. Further, there are many  
12 factors that should be carefully weighed in selecting a higher target. For example, to  
13 reduce the impacts of climate change it will be necessary to dramatically reduce carbon  
14 dioxide emissions in absolute terms, not just reduce the increase in emissions. Therefore,  
15 existing coal-fired power plants will have to be retired and replaced with clean energy  
16 resources or the carbon dioxide emissions from existing coal-fired power plants will have  
17 to be captured and safely stored. A new renewable energy target, whether established as  
18 a new RES or in a resource planning context, should consider retirement of existing coal  
19 plants.

20 Another issue raised concerns the need for feed-in tariffs. A feed-in tariff appears  
21 to be similar to APS' current performance or production-based incentives for large  
22 distributed energy projects. The current performance incentives depend on the length of  
23 the contract (10 to 20 years) and duration of payments. If the Commission desires to  
24 have APS undertake a feed-in tariff pilot program targeted to a specific customer group,  
25 WRA recommends that the Commission order APS to design and propose a pilot with

1 input from interested stakeholders and submit its proposal for Commission review in its  
2 July 2010 RES implementation plan.

3 Questions were also raised about whether it is in the public interest to require that  
4 any monetized benefits associated with banked carbon credits accrue to ratepayers or be  
5 utilized to further enhance APS' renewable energy infrastructure. Issues were also  
6 discussed about whether it would be in the public interest to create a carbon trust fund to  
7 ensure that ratepayers receive the full benefit associated with carbon credits created by  
8 the RES or energy efficiency programs. WRA believes that the credits resulting from  
9 APS' renewable energy projects and energy efficiency programs might be used by APS  
10 in several ways.<sup>2</sup> If APS used the credits to meet its own emission reduction obligations,  
11 it will avoid the costs of purchasing credits from others or the costs of making physical  
12 changes to its resources to comply with carbon dioxide emission limits; savings could be  
13 passed on through lower rates than would otherwise occur. If APS sold the credits,  
14 assuming the current limitations on doing so were overcome, the revenues could be  
15 counted against renewable energy and energy efficiency program costs or other costs as  
16 the Commission directs, thereby benefiting ratepayers. If APS retired the credits, it  
17 would accelerate emission reductions and benefit ratepayers and society in general  
18 through improved environmental conditions. The Commission should evaluate a range of  
19 options in another forum before setting a policy on how to best use emission credits  
20 associated with the renewable energy and energy efficiency projects.

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24 <sup>2</sup> A.A.C. R14-2-1804 (E) states that if an affected utility trades or sells environmental  
25 pollution reduction credits or any other environmental attributes associated with kWh  
produced by an eligible renewable energy resource, the affected utility may not apply  
renewable energy credits derived from those kWh to satisfy the RES requirements.

1 **III. ENERGY EFFICIENCY (SECTION XIV)**

2 Increasing energy efficiency in the APS service territory will provide significant  
3 and cost-effective benefits for APS customers (residential consumers and businesses), the  
4 electric system, the economy, and the environment.

5 SWEEP recommended achieving *at least* 20% to 25% energy savings by 2020  
6 through increased energy efficiency, consistent with the findings of the Western  
7 Governors Association (WGA). SWEEP also recommended achieving at least three  
8 quarters of the 20% to 25% total energy savings (or at least 15% to 20% savings by 2020)  
9 through utility sector energy efficiency programs, with the remaining 5% savings from  
10 other energy efficiency policies including building energy codes and appliance standards.

11 The energy efficiency provisions in the Settlement Agreement: (1) set energy  
12 efficiency goals for APS for the 2010 to 2012 period; (2) modify the existing  
13 performance incentive to encourage APS to achieve or exceed the goals; (3) require APS  
14 to file an annual Energy Efficiency Implementation Plan for the Commission's approval;  
15 (4) include several specific new or expanded programs or program elements to help  
16 achieve the Agreement's energy efficiency goals; (5) allow large commercial or large  
17 industrial customers to "self direct" DSM program funding under specific parameters;  
18 and (6) modify the Company's Demand Side Management Adjustment Clause (DSMAC)  
19 to better match expenditures and cost recovery.

20 These provisions are a *major* step forward for cost-effective energy efficiency in  
21 Arizona and are in the public interest.

22 The Settlement Agreement sets energy efficiency savings goals, defined as annual  
23 energy savings of 1.0% in 2010, 1.25% in 2011, and 1.5% in 2012, expressed as a percent  
24 of total energy resources needed to meet retail load. Cumulative annualized energy  
25

1 savings from the programs implemented in 2010-2012 would be approximately 3.75%  
2 (1.00% + 1.25% + 1.50%) of total energy resources needed to meet retail load in 2012.

3 If higher energy efficiency goals, such as an Energy Efficiency Standard, are  
4 adopted by the Commission for 2010, 2011 or 2012 in another docket, then those higher  
5 goals will supersede the goals in the Settlement Agreement.

6 In the energy efficiency workshops (Docket Nos. E-00000J-08-0314 and G-  
7 00000C-08-0314), SWEEP and WRA proposed energy efficiency targets of 1.25% of  
8 total energy resources to meet retail load in 2011 and 1.5% in 2012. These  
9 recommendations are the same as the goals in the Settlement Agreement for 2011 and  
10 2012.

11 The modifications to the existing performance incentive are designed to encourage  
12 APS to meet or exceed the energy efficiency goals.

13 APS witnesses stated that APS is committed to achieving the energy efficiency  
14 goals, and SWEEP testified that APS is obligated to meet the energy efficiency goals,  
15 i.e., to achieve the levels of annual energy savings each year as set forth in the Settlement  
16 Agreement in Section 14.1.

17 There are several proposed new or expanded DSM energy efficiency program  
18 enhancements and program elements to help achieve the Settlement Agreement's energy  
19 efficiency goals, including the following:

- 20 • Residential High Performance New Homes (the energy efficiency component  
21 of an approach to net-zero energy homes, when combined with renewable  
22 energy)
- 23 • Residential Existing Home Performance with a goal to serve at least 1,000  
24 homes by December 31, 2010
- 25 • Low Income Weatherization Enhancements
- Non-Residential High Performance New Construction

- 1 • Non-Residential Customer Repayment Financing
- 2 • A Schools Program with a goal to serve at least 100 schools by December 31,  
3 2010
- 4 • Large Customer Self-Direction

5 Many of these new program enhancements are aimed at increasing energy  
6 efficiency measures for schools, municipalities, residential consumers, and low-income  
7 customers. The energy savings and cost savings delivered through the programs assist  
8 these customers in dealing with rising energy prices.

9 APS filed details on the 2010 DSM energy efficiency programs and the associated  
10 savings, benefits, and costs in the 2010 Energy Efficiency Implementation Plan on July  
11 15, 2009, for the Commission's review and approval in this Docket. The Implementation  
12 Plan provides substantially more information on the 2010 programs, program elements,  
13 and program enhancements.

14 The 2010 Energy Efficiency Implementation Plan filed by APS in this Docket  
15 proposes to achieve 320,000 MWh of annual energy savings, equivalent to 1.0% of total  
16 energy resources in 2010 – the first year goal proposed in the Settlement Agreement. The  
17 program cost to achieve these energy savings is estimated by APS to be 1.4 cents per  
18 lifetime kWh saved. The programs will provide \$102 million in net benefits to APS  
19 customers, with a societal benefit/cost ratio of over 2.6. In addition to the annual energy  
20 savings, the programs will provide 3,543,000 MWh of lifetime energy savings, 60 MW  
21 of peak demand reduction, significant environmental benefits (e.g., 3,249 million pounds  
22 of CO2 emissions reductions), and 825 million gallons of water savings. Tables 2, 5, and  
23 6, APS Implementation Plan.

24 In the 2010 Energy Efficiency Implementation Plan, APS offered two alternatives  
25 for recovering the program costs through the Demand Side Management Adjustment

1 Clause (DSMAC). SWEEP supports the second alternative, resulting in a DSMAC  
2 charge of \$0.001680/kWh for non-demand billed customers and \$0.734957/kWh for  
3 demand billed customers. The DSMAC charge under the second alternative would result  
4 in a cost of \$1.27 per month for the average APS residential customer. Oral testimony of  
5 James Wontor, APS. Attachment 6, APS Implementation Plan.

6 The Settlement Agreement states that Staff shall review the 2010 Implementation  
7 Plan and provide its recommendations to the Commission in sufficient time so that the  
8 Commission may consider the Implementation Plan at its regular November Open  
9 Meeting. *The Signatories to the Agreement urge the Commission to take action on the*  
10 *Implementation Plan on or before the date the Commission takes action on the Settlement*  
11 *Agreement. Timely approval and implementation of the program enhancements will*  
12 *ensure that APS customers receive the benefits of the cost-effective energy efficiency*  
13 *programs in a timely manner.*

#### 14 **IV. PROVISIONS BENEFITTING ARIZONA PUBLIC SCHOOLS**

15 The Settlement Agreement includes several provisions that specifically benefit  
16 Arizona public schools. Arizona's public schools are confronting budget reductions  
17 previously unknown in Arizona. Aside from personnel costs, one of the major expenses  
18 for a school district is its utility costs. *Being able to manage those costs means that*  
19 *additional funds can be made available for classroom instruction.*

20 There are three ways in which the Settlement Agreement will provide school  
21 districts with additional tools to manage their energy consumption and reduce their  
22 energy costs. First, public schools will generally benefit from the adoption of energy  
23 efficiency goals set forth in the agreement. More specifically, APS' 2010  
24 implementation plan is to include a customer repayment/financing program element for  
25 schools, municipalities and small businesses. APS may use an actual on-the-bill or a

1 parallel bill approach to implement the provision. The financing costs associated with  
2 any repayment/financing program are fully recoverable as a program cost.

3 The 2010 implementation plan also includes a goal for APS to serve and install  
4 energy efficiency measures through existing DSM programs or enhanced program  
5 elements at 100 or more schools by December 31, 2010. In combination these provisions  
6 of the Settlement Agreement will make energy efficiency measures affordable for school  
7 districts and ensure that at least 100 schools are fully served over the next year.

8 The second important provision of the Settlement Agreement for school districts  
9 requires APS to file within 120 days of the Commission's approval of the Settlement  
10 Agreement a new program for on-site solar energy including photovoltaics, solar water  
11 heating and daylighting, at grades K-12 public (including charter) schools in its service  
12 territory. The program is also to include provisions that eliminate any up front customer  
13 costs for the school districts. This provision establishes a program goal requiring the  
14 installation of projects resulting in 50,000 MWhs of annual energy generation or savings  
15 within 36 months of program approval by the Commission.

16 In effect, this provision of the Settlement Agreement prioritizes RES funds for  
17 school applications during three years following approval of the settlement. The  
18 provision does not enlarge APS' commitment under the Settlement Agreement for  
19 renewable energy but merely directs that as part of its nonresidential program, a  
20 minimum amount of generation or savings will be achieved at Arizona's public schools  
21 during the three years following approval of the settlement. It is estimated that the annual  
22 energy generation or savings associated with 50,000 MWhs means that approximately  
23 110 schools will be provided on-site solar energy as a result of this provision.

24 The third provision relating to schools in the Settlement Agreement requires APS  
25 to file a new optional time of use rate applicable to K-12 schools within 90 days of

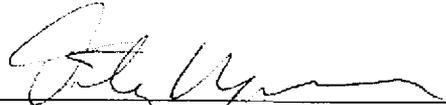
1 approval of the Settlement Agreement. The rate will be designed to provide daily and  
2 seasonal price signals to school districts to encourage load reductions during peak  
3 periods. School districts that are able to shift load during the peak or delay the start of  
4 the school year to avoid the system wide peak could benefit from such an optional rate. It  
5 is too soon to tell exactly how many school districts may benefit from this new optional  
6 rate but it will at least provide districts with a choice if they are in a position to take the  
7 measures that will be necessary to benefit from the rate.

8 **V. CONCLUSION**

9 For the foregoing reasons, WRA, SWEEP, ASBA and AASBO urge the  
10 Commission to approve the Settlement Agreement.

11 DATED this 9<sup>th</sup> day of October, 2009.

12 ARIZONA CENTER FOR LAW IN  
13 THE PUBLIC INTEREST

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21 ORIGINAL and 13 COPIES of  
22 the foregoing filed this 9<sup>th</sup> day  
23 of October, 2008, with:

24 Docket Control  
25 Arizona Corporation Commission  
1200 W. Washington  
Phoenix, AZ 85007

1 COPIES of the foregoing  
2 electronically transmitted  
3 this 9<sup>th</sup> day of October, 2009  
4 to:

4 All Parties of Record

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