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Attorneys for Western Resource Advocates

BEFORE THE ARIZONA CORPORATION COMMISSION

Arizona Corporation Commission
DOCKETED
MAR 30 2004
DOCKETED BY

MARC SPITZER
CHAIRMAN
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
MIKE GLEASON
KRISTIN K. MAYES

In the matter of the Application of ARIZONA PUBLIC SERVICE COMPANY for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, to Fix Just and Reasonable Rate of Return Thereon, to Approve Rate Schedules Designed to Develop Such Return, and for Approval of Purchased Power Contract.	Docket No. E-01345A-03-0437 **NOTICE OF FILING CROSS-REBUTTAL TESTIMONY**

Western Resource Advocates, through its undersigned counsel, hereby provides notice that it has this day filed the written cross-rebuttal testimony of David Berry in connection with the above-captioned matter.

DATED this 30th day of March, 2004.

ARIZONA CENTER FOR LAW IN
THE PUBLIC INTEREST

By_____
Timothy M. Hogan
202 E. McDowell Rd., Suite 153
Phoenix, Arizona 85004
Attorneys for Western Resource Advocates

ORIGINAL and 13 COPIES of the foregoing filed this 30th day of March, 2004, with:

Docketing Supervisor
Docket Control
Arizona Corporation Commission
1200 W. Washington
Phoenix, AZ 85007

COPIES of the foregoing transmitted electronically this 30th day of March, 2004, to:

All Parties of Record

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MARC SPITZER, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTILITY PROPERTY OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN, AND FOR APPROVAL OF PURCHASED POWER CONTRACT.	DOCKET NO. E-01345A-03-0437

Cross-Rebuttal Testimony of

David Berry

Western Resource Advocates

March 30, 2004

Cross-Rebuttal Testimony of David Berry
Docket No. E-01345A-03-0437

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Introduction

Q. Please state your name and business address and indicate whom you represent in this proceeding.

A. My name is David Berry. My business address is P.O. Box 1064, Scottsdale, Arizona 85252-1064. I represent Western Resource Advocates (WRA).

Q. Did you previously file testimony in this matter?

A. Yes. I filed direct testimony on February 3, 2004.

Q. What is the purpose of your cross-rebuttal testimony?

A. In the Amended Rate Case Procedural Order dated February 20, 2004, the Chief Administrative Law Judge ordered that any cross-rebuttal testimony to Staff/Intervenor testimony by parties other than Arizona Public Service Company (APS) should be filed by March 30, 2004. My cross-rebuttal testimony compares my direct testimony with positions taken by Staff, the Residential Utility Consumer Office (RUCO), and the Southwest Energy Efficiency Project (SWEEP) in their direct testimony. I address funding of the Environmental Portfolio Standard, the effect of natural gas prices on rates, and the role of energy efficiency as a complement to low cost renewable energy.

Funding of the Environmental Portfolio Standard

Q. What did you recommend regarding funding of the Environmental Portfolio Standard (EPS) in your direct testimony?

A. I recommended (page 17, starting at line 27) that the surcharge for the EPS be retained at its current level of $0.000875 per kWh, but that the caps be removed and that demand side management (DSM) funding that was redirected to support the implementation of the EPS be restored to DSM programs. My recommended funding level for the EPS was based on a calculation of the amount of money Arizona Public Service Company would need to meet the EPS kWh requirements by 2012. My recommendation also addressed the inequity created by the surcharge caps in which smaller commercial and residential customers pay a much higher effective surcharge rate for the EPS than large industrial customers.

Q. What is Staff's recommendation for funding the EPS?

A. On page 17 of her direct testimony (starting at line 15), Staff witness Barbara Keene recommends that the rate on EPS-1 remain at $0.000875 per kWh but with monthly

caps of $0.99 for residential customers, $25.00 for non-residential customers, and $100.00 for non-residential customers with demands of 3,000 kW or more. It is my understanding that Staff recommends that the $6 million that previously funded DSM and was redirected to fund the EPS would continue to fund the EPS and would not be restored to DSM programs.

Q. Would Staff's recommended funding for the EPS be sufficient to pay for APS' resource acquisitions to meet the Commission's EPS requirements?

A. The Staff recommendation may fall short of covering the cost for APS to meet the EPS requirement by 2012. Staff identified ways for APS to lower its costs (direct testimony of Barbara Keene, page 18, starting at line 2), including an expanded buydown program and more large scale solar thermal electric projects. I estimated the costs of meeting the EPS solar electric requirement with 20 percent of the solar electric kWh coming from customer-sited photovoltaic projects for which APS pays a buydown of $3,100 per kW through 2005 and $300 per kW less each year after that. The rest of the EPS requirements are met with utility scale photovoltaic projects and a mix of non-solar resources. With this lower cost approach, the remaining cost of meeting the EPS requirements by 2012 would be about $207 million while the revenues from the surcharge as recommended by Staff, plus the annual $6 million of funding redirected from DSM programs, would bring in about $172 million from 2004 through 2012.

Q. Do Staff's recommended surcharge caps alleviate the fairness issue raised in your direct testimony?

Q. No. The surcharge portion of the revenues to pay for the EPS would still put most of the burden on smaller customers. The effective rates in the 2002 test year of Staff's capped surcharges would be as follows:

- $0.000622 per kWh for residential customers
- $0.000425 per kWh for non-residential customers under 3 MW
- $0.000031 per kWh for non-residential customers over 3 MW

Q. Did your direct testimony propose a method for alleviating hardships on larger customers stemming from the EPS surcharge other than surcharge caps?

A. Yes. I suggested an opt-out approach for large customers who would install their own renewable energy facilities in lieu of paying the surcharge.

Q. How does your recommended treatment of the EPS surcharge and redirection of the DSM funding compare with RUCO's direct testimony?

A. I believe RUCO and WRA have consistent recommendations. RUCO witness Marylee Diaz Cortez recommends that the DSM funding be restored to DSM (page 26, line 5) as I recommended. I also infer (direct testimony of Ms. Diaz Cortez, page 26, line 12) that RUCO believes that the EPS should continue to be funded at an adequate level through a surcharge.

Q. Are there uncertainties associated with the cost of meeting the EPS and with the amount of revenues from the surcharge, and, if so, how should they be addressed by the Commission?

A. There are uncertainties as indicated in my direct testimony (page 15, starting at line 43). I believe that the best way to address these uncertainties is to collect the EPS funding through an adjustable system benefit type of charge or surcharge in which the rate is reset regularly to deal with imbalances between costs and revenues.

The Effect of Natural Gas Prices on Rates

Q. What position did you take in your direct testimony regarding high natural gas prices?

A. On pages 2 through 14 of my direct testimony, I found that APS relies on natural gas as a fuel for its intermediate and peaking power resources and that natural gas prices are volatile and increasing over time. As a result, rates will go up as gas prices go up. I further argued that APS should hedge against high natural gas prices by acquiring large amounts of low cost renewable energy to displace gas generation and that doing so would lower APS' fuel and purchased power costs in periods of moderate or high gas prices. I recommended that the Commission order APS to immediately acquire energy to meet at least 2 percent of its retail sales from low cost renewable energy resources and that the Commission undertake a process to establish a renewable portfolio standard well in excess of the current EPS (and in addition to the EPS).

Q. Since you filed your direct testimony on February 3, 2004, what has happened to natural gas prices paid by electric utilities?

A. They are climbing even higher. In my direct testimony I used the Energy Information Administration's *Short Term Energy Outlook* December 2003 forecast price of $4.97 per MMBtu ($4.86 per MMBtu in 2002 dollars) for 2004 (direct testimony, page 11, line 39). The *Short Term Energy Outlook* of March 2004 forecasts a price of $5.75 per MMBtu for 2004 and $5.46 per MMBtu for 2005 in nominal dollars. The higher that natural gas prices are, the greater the savings from substituting low cost renewable energy for generation from the marginal fossil fuel plants.

Q. How does Staff's assessment of the natural gas situation compare with yours?

A. Our views are consistent. Douglas C. Smith observes (direct testimony, page 5, starting at line 17) that the average costs for gas-fired units are much higher than for APS' coal and nuclear plants and above the system average cost per MWh for fuel and purchased power. Mr. Smith estimated that gas-fired units provide about 25 percent of total system energy requirements (assuming the PWEC facilities are rate based) but represent a cost of about $299 million per year which is over half of APS' net fuel and purchased power cost. Mr. Smith concludes that changes in natural gas prices can significantly affect APS' total fuel and purchased power expense. On page 6, Mr. Smith states that natural gas prices have shown considerable variance in recent years and that gas and electricity market prices will continue to vary significantly in the foreseeable future.

Q. What did Staff conclude about the role of natural gas prices as a cause of APS' requested rate increase?

A. Mr. Smith indicates that high natural gas prices are a primary driver of APS' requested rate increase (page 6, starting at line 20).

Q. Does Staff recognize the role of hedging against high natural gas prices?

A. Yes. Mr. Smith states, on page 6, line 9 of his direct testimony, that APS' gas fuel costs and electricity market purchases, if not hedged, will represent a significant source of cost uncertainty in the future. Even with traditional hedging in place, Mr. Smith states that APS will not be able to eliminate all fuel cost uncertainty.

Q. In light of Staff's analysis, do you still believe that the Commission should order APS to acquire at least 2 percent of its retail sales from low cost renewable energy resources in the next two years?

A. Yes. Staff's assessment of the role of natural gas at APS and the high cost of natural gas reinforce the need to hedge against high gas prices with low cost renewable energy.

The Role of Energy Efficiency

Q. Mr. Schlegel, representing SWEEP, states that "increasing energy efficiency will diversify the resource mix, increase reliability, and mitigate vulnerability to price volatility. Energy efficiency does not rely on any fuel and is not subject to shortages of supply or fuel price volatility" (direct testimony, page 4, starting at line 24). How would energy efficiency and low cost renewable energy work together to hedge against the risk of continued high natural gas prices?

A. Both are cost effective means to reduce APS' reliance on expensive natural gas. Energy efficiency measures which reduce demand during peak and intermediate periods avoid the need to burn gas at APS' power plants and at natural gas fired power plants from which APS purchases energy. Low cost renewable energy displaces the marginal power plants that would otherwise be running at the time the renewable energy is available. During peak and intermediate periods, that renewable energy displaces electricity generated at gas-fired power plants.

Q. Mr. Schlegel proposes an ambitious energy efficiency program for APS and you have proposed that APS immediately acquire at least 2 percent of its retail energy sales from low cost renewable energy resources. Can ratepayers afford both of these programs?

A. Yes. By acquiring significant amounts of low cost renewable energy, APS' costs and rates will be lower than they would otherwise be. By acquiring significant amounts of cost effective energy efficiency resources, ratepayers' total costs will go down.

Q. Does this conclude your cross-rebuttal testimony?

A. Yes.