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Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RE: Arizona Public Service Company –Rate Case Docket No. E-01345A-05-0816, E-01345A-05-0826 and E-01345A-05-0827

Attached are the Rejoinder Testimonies of Arizona Public Service Company's witnesses in the above referenced matters.

Sincerely,

Brian Brumfield
Supervisor
Regulatory Affairs

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Steven M. Wheeler

REJOINDER TESTIMONY OF STEVEN M. WHEELER

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816

Docket No. E-01345A-05-0826

Docket No. E-01345A-05-0827

October 4, 2006

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REJOINDER TESTIMONY OF STEVEN M. WHEELER
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket Nos. E-01345A-05-0816; E-01345A-05-0826; and E-01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.

A. My name is Steven M. Wheeler. I am an Executive Vice President, Customer Service and Regulation for Arizona Public Service Company ("APS" or "Company"). In that role, I am responsible for customer service and regulatory matters affecting the Company before the Arizona Corporation Commission ("Commission") and the Federal Energy Regulatory Commission ("FERC"). I am also responsible for the planning, construction, maintenance and operation of APS transmission and distribution systems. My business address is 400 North Fifth Street, Phoenix, Arizona 85004.

Q. HAVE YOU PREVIOUSLY FILED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF THIS REJOINDER TESTIMONY?

A. In addition to presenting a revised and reduced overall revenue requirement, I will respond to the surrebuttal testimony of James R. Dittmer regarding "end result" financial analyses and APS' presentation of revenue adjustments to protect its financial integrity. I will also respond to RUCO witnesses Diaz Cortez and Rigsby on the same revenue adjustments and incentive compensation.

II. SUMMARY OF REJOINDER TESTIMONY

Q. WOULD YOU PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY?

A. The updated base fuel costs discussed in the Rejoinder Testimony of Pete Ewen have been lowered to reflect more recent fuel price information and in response to certain criticisms in Staff witness Antonuk's surrebuttal. Thus, the new base fuel cost is roughly $.0325 per kWh, which reduces our requested increase by just under $17 million.

Staff and RUCO have failed to demonstrate the reasonableness of their overall revenue requirement recommendations during the period the rates established in this case will be effective. Nor have they presented their own studies to challenge the Company's financial analysis showing that the Staff and RUCO recommendations will plunge the Company into the "junk" credit category. Mr. Dittmer's explanation for this failure does nothing to change the evidence in this case or improve the Company's obviously deteriorating financial condition.

In addition, I believe the Commission should reject Mr. Dittmer's criticism of the Company's proposed revenue requirement adjustments. Mr. Dittmer concedes they will improve the Company's earnings and cash flow performance, but nevertheless rejects them for reasons far less compelling than the Company's clear need for adequate rate relief.

RUCO witness Diaz Cortez attempts to demonstrate that RUCO's recommendation will produce the return its witness has proposed. (Diaz Cortez Surrebuttal Testimony at 3) Her analysis is essentially a tautology. If APS expenses were what RUCO suggests they were during the 2004-2005 test period, and if APS received the revenues also suggested by RUCO, APS would

have earned its return for the historical test period. Aside from the faulty premises to this thesis, it is simply irrelevant whether or not APS would have earned a specified return in the past under hypothetical conditions. Rates are set for the future, and it is that theme that permeated my Rebuttal Testimony.

RUCO witness Rigsby continues to support an across-the-board 20% cut in incentive pay. He does not present any analysis challenging the reasonableness of APS employee compensation nor provide any new justification for this arbitrary adjustment.

III. NEW REVENUE REQUIREMENT

Q. HAS APS REDUCED ITS OVERALL REVENUE REQUIREMENT?

A. Yes. The updated base fuel costs discussed in the Rejoinder Testimony of Pete Ewen have been lowered to reflect more recent fuel price information and in response to certain criticisms in Staff witness Antonuk's surrebuttal. Thus, the new base fuel cost is roughly $.0325 per kWh, which reduces our requested increase by $16.6 million.

IV. THE FINANCIAL "END RESULT" ANALYSIS ISSUE

Q. HAS STAFF PROVIDED ANY ANALYSIS OF THE IMPACT OF ITS OVERALL REVENUE REQUIREMENT RECOMMENDATION FOR THE PERIOD WHEN THE NEW RATES WOULD BE IN EFFECT?

A. Mr. Dittmer is quite clear that the Staff did not conduct such an analysis. (Dittmer Surrebuttal Testimony at 5)

Q. DID MR. DITTMER OR ANY OTHER STAFF WITNESS PROVIDE A FINANCIAL ANALYSIS TO CHALLENGE THE TESTIMONY OF MR. BRANDT OR MR. FETTER THAT THE RECOMMENDATIONS OF THE COMMISSION STAFF WILL PLUNGE THE COMPANY INTO THE JUNK CREDIT RATING CATEGORY?

A. No. Rather Mr. Dittmer speculates that the Company's forecasts may prove pessimistic and that, contrary to the evidence, APS might somehow scrape through with a lesser increase in revenues.

Q. DID STAFF EXPLAIN WHY IT FAILED TO CONDUCT ANY FINANCIAL ANALYSIS OF THE IMPACT OF DIFFERING REVENUE REQUIREMENT RECOMMENDATIONS?

A. Yes. Mr. Dittmer offers several explanations. First, he contends that our filing was based "exclusively" upon the adjusted historic test year and therefore Staff had no reason to consider financial impacts (Dittmer Surrebuttal Testimony, at 5). Second, Mr. Dittmer asserts that Utilitech was not asked to review the impact of the Staff recommendations and has never historically done so in past ACC cases in which it has been involved. (Dittmer Surrebuttal Testimony at 6) Third, he claims "Staff did not undertake an analysis of the impact of its recommendations on forecasted operating results because such analyses simply had not been undertaken for a number of years. . ." (Dittmer Surrebuttal Testimony at 7) Fourth, he argues that a review of the Company's filing is "resource intensive" (*Id.*); therefore, Staff devoted most of its resources to analyzing increasing fuel and purchased power costs. (*Id.*) Fifth, he alleges that because the Company gave no "forewarning" that financial forecasts would be important, such a review was "simply not considered." (*Id.*)

Q. HOW DO YOU RESPOND TO MR. DITTMER'S COMMENTARY ON THIS ISSUE?

A. I don't believe any of his comments justify ignoring the serious adverse ramifications of Staff's recommendations in this case or failing to test its proposed revenue levels against the required "reasonableness" standard, particularly when we have offered expert opinion indicating that the Staff

proposals will be disastrous for the Company and its customers. His first four comments (Staff decided to focus on the historic test year; Mr. Dittmer was not asked to review the impact of Staff recommendations; such an analysis had not been undertaken for a number of years; and Staff decided to concentrate on fuel and purchased power issues) are simply explanations, which I accept at face value. They are certainly not justifications for failing to meaningfully address perhaps the most critical issue in this case.

His last comment (that Staff was not "forewarned" that the Company would care about the results of the parties' recommendations) is simply not accurate and in any event, would not excuse Staff from its obligation to present a recommendation that produces just and reasonable rates. The Commission's A and F Schedules (a part of the Company's filings since November of 2005) clearly require a presentation of the results expected under both present and proposed rates (in this case for the years 2006 and 2007). Mr. Brandt places this topic squarely in center stage, discussing this issue extensively in his Direct Testimony both in November of 2005 and in January of this year – some 8 - 10 months ago. The Company has repeatedly emphasized to the Commission, both in the recent emergency proceeding and in subsequent letters, that APS' future financial condition was and is the most critical issue facing the Company and the one of most interest to the rating agencies and investors. I do not understand how Staff could conclude that future financial results were not important in this case.

Q. DID STAFF HAVE AN OPPORTUNITY TO ANALYZE THE IMPACT OF BOTH THE COMPANY AND STAFF RECOMMENDATIONS IN THIS CASE?

A. Yes, they did. Clearly, nothing prevented Staff from testing its own recommendations. With respect to the Company, we originally filed our case in November of 2005 and then at the request of Staff updated it in our filing of January 31, 2006. In addition, the recent emergency hearing shone a bright light on the Company's critical financial needs going forward. APS also met with Staff and certain other parties during the summer to emphasize once again the necessity of adequate rate relief to protect its financial position. In addition, Mr. Brandt devoted a considerable portion of his Direct Testimony on precisely the issue of expected financial results and included financial projections in that testimony.

Q. DID RUCO WITNESS DIAZ CORTEZ PERFORM AN "END RESULT" TEST OF RUCO'S OVERALL REVENUE RECOMMENDATION?

A. No. At page three of her surrebuttal, Ms. Diaz Cortez alleges that because the historical test period "numbers" total up to produce a 9.25% ROE on a piece of paper, the Company will somehow have a meaningful opportunity to earn that return. Like Staff, she also notes the beneficial impact of changes to the PSA.

Unfortunately, the changes in the PSA supported by RUCO will have negligible earnings impact and will not overcome the other deficiencies in RUCO's overall revenue requirement recommendation. Attrition is a fact, not some speculation on the part of the Company. If we pretend it does not exist or is not a significant problem, especially for APS, we will do a disservice to the Company and its customers.

V. ATTRITION AND OTHER POTENTIAL REVENUE REQUIREMENT ADJUSTMENTS

Q. WHAT IS MR. DITTMER'S POSITION ON ADOPTION OF THE VARIOUS "ATTRITION ADJUSTMENTS" PRESENTED IN YOUR TESTIMONY?

A. He states, "I would strongly urge rejection of [the Company's] attrition adjustments. . ." (Dittmer Testimony at 9-10).

Q. UPON WHAT DOES MR. DITTMER BASE HIS OBJECTION?

A. He advances several reasons. First, he states that Staff has not reviewed APS' financial forecasts "in any meaningful detail" (Dittmer Testimony at 9) because he claims that APS' proposal came at the "eleventh hour." (*Id.*) Second, he alleges that at least one of the proposals would represent "abandonment, or at least partial abandonment of historic test year rate making principles employed in Arizona." (Dittmer Testimony at 13-14). Third, he argues that Staff's proposed changes to the PSA should more or less eliminate any earnings attrition associated with fuel costs. (Dittmer Testimony at 19-20.)

Q. DOES MR. DITTMER OFFER AN OPINION AS TO THE EFFECTIVENESS OF ANY OF THESE APS PROPOSALS IN ACHIEVING AN IMPROVEMENT IN APS' FINANCIAL CONDITION?

A. Yes. He appears to believe that each of these proposals would improve the Company's cash flows and, in some instances, its earnings. For example, Mr. Dittmer states that several of the Company's alternative proposals "would most assuredly reduce earnings attrition above that which would be achieved by establishing rates through strict employment of an historic test year cost of service." (Dittmer Testimony at 14) He also indicates that if the Commission were otherwise inclined to adopt any of the APS proposals over Staff's objection, the Commission should adopt the CWIP proposal or collection through rates of accelerated depreciation because each of these two would yield direct benefits for future ratepayers. (Dittmer Testimony at. 16-17) He claims the

other revenue adjustments, although also improving APS' financial metrics, would result in increased earnings for shareholders but no direct offsetting beneficial impact to customers. This last point was clearly refuted in Mr. Brandt's Rebuttal Testimony, which emphasizes the enormous cost to our customers of failing to retain the Company's already precarious investment grade rating.

Q. HOW DO YOU RESPOND TO MR. DITTMER'S CRITICISM OF THE TIMING OF THE COMPANY'S REVENUE ENHANCEMENT PROPOSALS?

A. With respect to Mr. Dittmer's "eleventh hour" criticism, I would first respond that it was the Commission's Staff's and RUCO's testimony with clearly inadequate rate recommendations that precipitated the need to look at the alternative revenue enhancement proposals contained in my Rebuttal Testimony. The need had not existed previously because the Company's original rate filing demonstrated the need and necessity for the Company's requested increase without having to rely on these supplemental adjustments. In addition, these proposals are also in direct response to Chairman Hatch-Miller's letter, which specifically asked APS to present ways "to gradually improve the Company's creditworthiness." (Letter from Chairman Hatch-Miller dated July 21, 2006.)

To the claim that these proposals have not been sufficiently reviewed, I would point out that this hearing provides just such an opportunity to review the proposals; that the calculations underlying the recommendations were performed using methods and processes utilized in the normal course of the Company's business and upon which the Company relies in setting its long-term forecasts; and that in any event the Company is so substantially under earning its authorized returned that it is extremely doubtful, if not impossible, that any error

would contribute to an "over earning" situation even under Staff's recommended cost of capital.

Mr. Dittmer's claim that the adjustment to the rate of return on the fair value rate base would represent an abandonment of historic test year ratemaking principles was addressed in my Rebuttal Testimony, wherein I indicated that applicable precedent provides the Commission with latitude in establishing the return on fair value rate base as long as the end result is just and reasonable – which is the precise reason why we have offered the proposal.

Q. WHAT ABOUT MR. DITTMER'S CLAIM THAT CONCERNS ABOUT ATTRITION HAVE BEEN ADDRESSED BY STAFF'S PSA PROPOSALS?

A. I wish that were so, but it isn't. Mr. Brandt's Rebuttal Testimony demonstrated significant attrition under the Staff's recommendations notwithstanding potential changes to the PSA – changes that it turns out Staff does not fully support.

Q. BUT ISN'T MR. DITTMER CORRECT THAT THESE RATE ALTERNATIVES HAVE NOT BEEN REGULARLY EMPLOYED BY REGULATORY AGENCIES?

A. I believe he is, but attrition adjustments have certainly been made by commissions when circumstances warrant. This Commission included very significant amounts of CWIP in rate base back during the 1980s when APS was faced with a similar financial crisis.

I don't believe the issue is whether the Commission has the authority to alleviate earnings attrition and improve the Company's cash flows. It is a question of whether the Commission wishes to retain the substantial benefits to customers from APS remaining an investment-grade utility.

Q. HOW DO YOU RESPOND TO RUCO WITNESS DIAZ CORTEZ' CRITICISMS OF YOUR PROPOSED REVENUE ADJUSTMENTS?

A. Her primary criticism appears to be that such recommendations do not adequately reflect the interplay of other cost and revenue items occurring after the end of the test year and therefore may be one-sided. But one need not conduct an exhaustive future test period cost of service to conclude that RUCO's rate recommendation is inadequate and that additional ratemaking mechanisms must be used in order to meet what I hope is our shared objective of avoiding a downgrade to junk and restoring financial health to the Company in a manner that benefits customers.

Q. DO YOU HAVE ANY CONCLUDING REMARKS ON THE SUBJECT?

A. I would once again request that the Commission consider these proposed attrition-related adjustments as an appropriate and legitimate way of ensuring that the rates it sets in this proceeding are just and reasonable.

VI. INCENTIVE COMPENSATION

Q. RUCO WITNESS RIGSBY CONTINUES TO ADVOCATE THAT THE COMMISSION REJECT 20% OF APS' EXPENSED INCENTIVE PROGRAM COST BY APPROXIMATELY $4.5 MILLION. DO YOU AGREE WITH HIS ADDITIONAL ARGUMENTS FOR THIS DISALLOWANCE?

A. No. And I would again remind the Commission that this rate case does not include any officer incentive payments, and the officer salary levels are reflected at 2004, not 2005 levels. In addition, Mr. Rigsby acknowledges that RUCO is not claiming that the Company's incentive program is unreasonable or that APS employees participating in the program were in any way "overcompensated."

Mr. Rigsby initially claims that his disallowance might not be as bad as first assumed because APS employees may fail to meet the targeted goals (page 10).

While it is true that incentive targets may not be met in a particular year (which is why it's referred to as "at risk" compensation), the RUCO recommendation is an absolute and automatic 20% cut in these incentives irrespective of employee performance.

Next, Mr. Rigsby argues that the RUCO recommendation would "send a stronger message" to the financial community that the Company is serious about cutting costs (Rigsby Surrebuttal Testimony at 11). Mr. Rigsby offers no support for this opinion nor do any of the outside financial reviews of APS suggest that such cost cutting at the expense of APS employees is necessary or would improve their outlook of the Company's creditworthiness. It is far more likely that the financial community would view adoption of such a recommendation as an unjustified intrusion into internal corporate management decisions, and a threat to the Company's ability to attract and retain a qualified workforce.

The Company has previously documented to the Commission the extensive steps it takes to control and manage costs and the successful results it has achieved. This case is not about unreasonable costs of service, but rather about inadequate rates that fail to produce the revenues necessary for the Company to do its job.

The third primary reason for the RUCO recommendation appears to be that other businesses adjust employee compensation in times of difficulty. Mr. Rigsby cites two inapt examples in a non-price regulated environment - a bankrupt airline and voluntary pay cuts by another financially troubled airline. Mr. Rigsby fails to compare (or even identify) the circumstances surrounding such actions and their relevance, if any, to the situation faced by APS and its

employees, which is one of inadequate government-set prices – not excessive labor costs. He also fails to note that the competitive businesses he cites are free to raise and lower their prices as they see fit and are not encumbered by any public service obligation to plan for and invest in infrastructure necessary to serve all customers who desire service. I don't believe either example is relevant to the Commission's deliberations. Thus, I would urge the Commission to reject Mr. Rigsby's recommendation.

VII. CONCLUSION

Q. DO YOU HAVE ANY CONCLUDING REMARKS?

A. Yes. APS is facing a financial threat every bit as severe as that which confronted the Commission last spring. Unless it receives adequate rate relief in this proceeding, the Company will not be able to recover its cost of providing service with the inevitable loss of creditworthiness. The result will be even higher costs for customers in the future and the potential inability to meet adequately the growing needs of APS customers. I cannot overemphasize the importance of setting rates that will produce reasonable results and ask the Commission not to put form and process over substance on an issue so critical to APS, its customers, and this state.

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

Donald E. Brandt

REJOINDER TESTIMONY OF DONALD E. BRANDT

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816

Docket No. E-01345A-05-0826

Docket No. E-01345A-05-0827

October 4, 2006

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Standard & Poor's, *Key Credit Factors: Assessing U.S. Vertically Integrated Utilities' Business Risk Drivers*, September 14, 2006 ..... Attachment DEB-1RJ

Credit Suisse Equity Research, *A Case for Case*, Dan Eggers, September 18, 2006 ..... Attachment DEB-2RJ

REJOINDER TESTIMONY OF DONALD E. BRANDT
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E-01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is Donald E. Brandt. I am Executive Vice President and Chief Financial Officer for both Pinnacle West Capital Corporation ("Pinnacle West") and Arizona Public Service Company ("APS" or "Company"). I have responsibility for the finance, treasury, accounting, tax, investor relations, financial planning, and power marketing and trading functions at Pinnacle West and APS. My business address is 400 North 5th Street, Phoenix, Arizona, 85004.

Q. DID YOU PROVIDE DIRECT TESTIMONY IN THIS PROCEEDING THAT PROVIDES YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will respond to: (i) the surrebuttal testimony of Staff witness Dittmer and RUCO witnesses Hill and Diaz Cortez regarding the Company's assessment of the financial consequences of Staff's and RUCO's recommendations and the Company's modified asking; (ii) the surrebuttal testimony of Staff witness Dittmer and RUCO witnesses Hill and Diaz Cortez regarding the Company's proposed construction work in progress ("CWIP") in rate base, accelerated depreciation and attrition adjustments; (iii) the surrebuttal testimony of RUCO witness Hill regarding certain aspects of his proposed capital structure of 50% debt and 50% equity, and Return on Equity ("ROE") of 9.25%; (iv) the

surrebuttal testimony of RUCO witness and Diaz Cortez regarding RUCO's pro forma adjustment for the removal of SERP[1] costs, and (v) the surrebuttal testimony of Staff witness Dittmer regarding underfunded pension liability.

II. SUMMARY

Q. PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY.

A. As a broadly experienced financial expert, with in excess of 20-years of specific expertise in the area of corporate credit ratings, I continue to believe that the major credit rating agencies will downgrade the Company's debt ratings to non-investment grade "junk" levels should the Commission accept either Staff's or RUCO's recommendations. Staff and RUCO have failed to demonstrate that their recommendations will provide APS any opportunity whatsoever to earn its allowed ROE or maintain investment grade credit metrics during the effective period of the rates established in this case.

In the face of the serious challenges confronting the Company, I continue to support my proposals regarding CWIP in rate base, accelerated depreciation, and an attrition adjustment. Each of these would improve APS' creditworthiness and the attrition adjustment would provide the Company a reasonable opportunity to earn its allowed ROE. Staff and RUCO have offered neither constructive criticism of these proposals nor suitable counterproposals. Rather, they have cavalierly rejected the notion that a problem might even exist.

RUCO witness Hill ignores the clear implications of his proposed 50/50 capital structure and 9.25% ROE recommendation: the rating agencies will downgrade

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[1] Supplemental Excess Benefit Retirement Plan.

the Company to a non-investment grade level. No amount of wishful thinking will alter the hard reality of financial analysis that yields numbers and percentages falling into the non-investment grade ranges.

RUCO witness Diaz Cortez has failed to provide any evidence whatsoever to support her pro forma adjustment to remove all SERP costs from the test period. She bases her entire argument on inaccurate descriptions and mischaracterizations of SERP costs. An integral component of APS' total compensation package for senior managers, the SERP constitutes a necessary, prudent business expenditure. As such, we strongly recommend its continued allowance in cost of service.

Staff witness Dittmer offers a combination of speculation and several incorrect and baseless arguments to deny the Company's request to accelerate the recovery of its underfunded pension liability. APS firmly believes that addressing the issue at this time serves the best interests of our customers, our employees, and our Company.

Q. ARE YOU SPONSORING ANY ATTACHMENTS TO YOUR TESTIMONY?

A. Yes. My testimony includes the following Attachments:

1. DEB-1RJ – Standard & Poor's, *Key Credit Factors: Assessing U.S. Vertically Integrated Utilities' Business Risk Drivers*, September 14, 2006
2. DEB-2RJ – Credit Suisse Equity Research, *A Case for Cash*, Dan Eggers, September 18, 2006

Q. DO YOU HAVE ANY GENERAL REACTION TO STAFF'S AND RUCO'S SURREBUTTAL TESTIMONY?

A. A recurring theme repeats throughout the surrebuttal testimony of Staff and RUCO. For example, Staff witness Dittmer cites his concerns about

"intergenerational inequity" (p. 33) with respect to APS' proposed pension funding proposal. RUCO witness Diaz Cortez (1) expresses her concern about "biased rates" (pp. 30 and 32) resulting from APS' proposed adjustments for post-test year plant in service and attrition, (2) decries that "there is no symmetry" in the APS proposal to accelerate depreciation expense, and (3) states "Utility regulation has routinely excluded CWIP from rate base" (p. 33, emphasis added) in response to APS' proposal to include CWIP in rate base. RUCO witness Hill states, "...that is precisely why utilities have the right to seek re-balancing of those relationships in future rate cases and, over time, an appropriate balance can be restored" (p. 5) in response to APS testimony that demonstrates under RUCO's proposal APS has virtually no opportunity to earn even RUCO's proposed 9.25% ROE.

This testimony by Staff and RUCO witnesses ignores the fact that, as I explained, I structured my testimony in large part to respond appropriately and constructively to Chairman Hatch-Miller's July 21, 2006 letter (Attachment DEB-11RB). In that letter, the Chairman specifically referred to APS' enormous capital expenditure budget and the related financing costs that will ultimately be borne by APS' customers, and requested that APS provide testimony on measures the Commission could adopt to improve APS creditworthiness so as to lessen cost to customers.

Several potential avenues for improving APS' financial situation became readily apparent. In particular, I suggested proposals to include CWIP in rate base and to adopt accelerated depreciation. Additionally, APS' witnesses Avera, Wheeler and I proposed an attrition adjustment that would provide APS a reasonable opportunity to earn its allowed ROE, and thus to make progress toward the goal

of preserving access to the equity capital markets and to maintain an investment grade credit rating.

On the other hand, in spite of the Chairman's call for forward thinking and innovative solutions to cure the structural impediments APS faces as it wrestles with providing high quality service to the second fastest growing service territory in the US and providing a reasonable return to its shareholders, Staff and RUCO witnesses have not responded on the merits to these proposed solutions, but rather have suggested that "if one ignores the problem long enough, it just might go away". APS does not believe that this collective refusal to assess fairly our wide array of potential solutions responds appropriately to the Chairman's request.

I believe both the Commission and APS understand that our current economic and demographic environment does not call for "business as usual". As previously discussed at length, we have a rapidly growing service population and a dynamic and productive economy, both of which have large energy requirements. As a consequence, APS faces a massive, multi-billion dollar capital expenditure program to serve these needs stretching for more than a decade into the future. Effectively addressing the difficult tasks at hand will require creative thinking and innovative regulatory policies.

Chairman Hatch-Miller, I believe, called for just such innovative and collaborative thinking to solve economically and efficiently the enormous challenges facing APS and our State in the coming years. Unfortunately, I believe, Staff and RUCO witnesses appear to have reflexively rejected any such forward-looking and constructive solutions to a problem that portends adverse

financial consequences for the Company, its customers, and the State of Arizona generally, if we continue to practice regulation as usual.

III. FINANCIAL CONDITION

Q. DID ANY STAFF, RUCO OR OTHER INTERVENOR WITNESSES DISAGREE WITH YOUR ASSESSMENT OF THE FINANCIAL IMPACT SHOULD APS' CREDIT RATINGS FALL TO A NON-INVESTMENT GRADE "JUNK" LEVEL?

A. No. No witness has disputed the severe impact of a non-investment grade credit rating on either APS' ability to access the capital markets for the required issuance of several billion dollars of debt to fund our customers' massive infrastructure needs or the unavoidable massive increase in interest expense.

Q. IN THEIR SURREBUTTAL TESTIMONY, STAFF WITNESS DITTMER AND RUCO WITNESSES DIAZ CORTEZ AND HILL TAKE EXCEPTION TO YOUR CONCLUSIONS ABOUT THE RESULTING CREDIT QUALITY OF APS UNDER THEIR RESPECTIVE RECOMMENDATIONS. HOW DO YOU RESPOND?

A. All three witnesses disagree with my assertion that should the Commission accept either Staff's or RUCO's recommendations, the Company's credit ratings will be downgraded to non-investment grade "junk" levels. However, they have provided no quantitative or qualitative support for their statements. Similarly, none of them have explained in detail what would happen to APS' credit quality should the Commission adopt their recommendations.

Q. WHAT DOES STAFF WITNESS DITTMER SAY ABOUT THE IMPACT OF THE STAFF'S OVERALL RATE INCREASE RECOMMENDATION UPON APS' FORECASTED RESULTS?

A. Mr. Dittmer asserts that Staff would act inappropriately if it considered the impact of the rate increase on projected financial results. Mr. Dittmer ignores the fact that we must include financial projections as schedules in any rate application. APS provided 2007 projected results under present rates and APS'

proposed rates in Schedules A-2 through A-5 and Schedules F-1 through F-4 in the direct filing. Schedules D-1 and D-2 provide projected capital structure and cost of capital information. Staff's preparation of a pro forma calculation of the resulting earnings and key credit metrics after Staff's proposed rate increase becomes effective would not have been a large undertaking. As we know, Arizona has traditionally predicated ratemaking on a historical test year; however, I suggest the required practice in this instance takes into consideration the resulting financial impact of a rate proposal. APS believes that the Commission requires the Company to file projected financial information with its direct filing for this very reason.

Mr. Dittmer states that Staff has performed a detailed review of the adjusted test-year cost of service data. However, he expresses unease in utilizing any forecasted data for which he has not yet performed a detailed review for use in a reasonableness test. He asserts that parties can manipulate the various inputs to skew the forecasts in the direction they desire. He claims, furthermore, that mistakes can undermine the forecasts. In voicing these concerns, Mr. Dittmer confuses the purpose of a detailed review of cost of service information with a reasonableness test of projected financial results under different scenarios. Certainly, ratemaking requires a detailed review of test year data, but we must also prudently consider other knowledgeable and interested parties opinions as to the effect ratemaking decisions will have on the Company's future performance. Company management, credit rating agencies, and the investment community all assess the financial health and prospects of APS utilizing forward-looking analysis. While a financial forecast may have imperfections,

we contend such rigorous exercises help greatly to shed light on how ratemaking decisions will affect APS' future financial performance.

Q. RUCO WITNESS DIAZ CORTEZ ALSO ASSERTS THAT FORECASTED FINANCIAL RESULTS DO NOT HAVE A PLACE IN A RATEMAKING PROCEEDING. HOW DO YOU RESPOND?

A. Ms. Diaz Cortez asserts reliance on historical test year data when determining rate increases will allow the Company the opportunity to earn its allowed ROE. Under the best of circumstances, this concept would work only if all factors remained constant. In fact, however, our dynamic economy changes constantly. Thus, we must make proper use of forecasted financial results when making a decision of this magnitude. With the Company on the precipice of non-investment grade ratings, with their attendant extraordinary additional expense, we should consider what impact the ratemaking decision will have on the projected credit metrics. We contend with credit rating agencies that do not wait until after the publication of financial results to change ratings. The agencies rely on their best estimate of the Company's projected financial metrics and their associated trend lines.

Q. ON PAGE 5 OF HER SURREBUTTAL TESTIMONY, MS. DIAZ CORTEZ ASSERTS THAT BECAUSE APS DOES NOT CARRY A "JUNK" RATING TODAY, THEY MUST REMAIN INVESTMENT GRADE WITH RUCO'S PROPOSED $232 MILLION INCREASE. IS THIS TRUE?

A. Ms. Diaz Cortez has made a serious mistake. The magnitude of the rate increase and the resulting impact on cash flow and financial results have a direct bearing on the Company's financial health. The credit rating agencies scrutinize these results most intensely. In my rebuttal testimony at page 8, I describe the extremely poor financial metrics which would result should the Commission adopt RUCO's recommendations. The results clearly descend deep into non-

investment grade territory. Merely because we have not received "junk" ratings to date should not give rise to the belief that RUCO's inadequate proposed increase will ensure APS' ability to avoid such a credit ratings disaster in the future.

Q. ON PAGE 3 OF HIS SURREBUTTAL TESTIMONY, RUCO WITNESS HILL CLAIMS THAT HE DID IN FACT ASSESS THE ADEQUACY OF HIS COST OF CAPITAL RECOMMENDATIONS AND THAT HIS RECOMMENDATION "AFFORDS THE COMPANY AN OPPORTUNITY TO IMPROVE ITS FINANCIAL POSITION". DO YOU AGREE?

A. No, I do not. Mr. Hill used an overly simplistic method to assess the adequacy of the RUCO recommendation. As evidenced by his footnote in his Schedule 13 of Exhibit_(SGH-1), he tests the adequacy of his recommendations by using a simple mathematical calculation employing his own recommendations to "back into" an assumed interest coverage ratio that he asserts will reflect a 30% improvement over historical levels. He apparently chose to ignore the Debt to Capital ratio and the highly important FFO/Debt ratio. Furthermore, he utilizes the method of calculating the interest coverage ratio prescribed by the U.S. Securities and Exchange Commission ("SEC") for use in reports filed with the SEC. Unlike the SEC's prescribed methodology, the methodology prescribed by the credit rating agencies requires adjustments to reflect imputed debt attributable to "off balance sheet" items such as purchased power agreements and operating leases. Consequently, Mr. Hill's analysis and conclusions exhibit serious deficiencies in this regard.

As the graphs on page 10 and 11 of my rebuttal testimony demonstrate, under RUCO's and Mr. Hill's recommendation, APS' interest coverage metric will

decline to the brink of a "junk" credit rating, and the FFO/Debt and Debt to Capital metrics will plunge deeply into "junk" territory.

Q. ON PAGE 4 OF HIS SURREBUTTAL TESTIMONY, MR. HILL POINTS OUT:

> **...IT APPEARS FROM THE WORKPAPERS THAT MR. BRAN[D]T PROVIDED WITH HIS TESTIMONY, THAT A PRIMARY DIFFERENCE BETWEEN THE OPERATING EXPENSES ATTRIBUTED TO HIS "RUCO PROJECTION" (ATTACHMENT DEB-3RB) AND THOSE CONTAINED IN HIS PROJECTIONS FOR APS IS THE ADDITION OF ROUGHLY $600 MILLION IN DEBT TO THE CAPITAL STRUCTURE, WHICH INCREASES INTEREST EXPENSE BY ROUGHLY $45 MILLION ANNUALLY. THOSE FIGURES IMPLY AN ASSUMED DEBT COST RATE OF 7.29%, CONSIDERABLY HIGHER THAN APS CURRENT EMBEDDED DEBT COST.**

HOW DO YOU RESPOND?

A. Mr. Hill's reference to "the addition of roughly $600 million of debt" requires a response. As compared to the Company's proposal, RUCO's recommendation results in annual revenues that are $420 million **less** over the forecast period. APS would have to fund this cash shortfall through the issuance of additional debt. The additional debt and the far worse financial performance caused by the adoption of the RUCO proposal would cause APS' credit ratings to fall to "junk". Once this occurs, the next domino falls: the Company would effectively lose economic access to the equity markets which, in turn, would worsen our debt-to-equity ratio, sending the Company's fixed income and equity valuations spiraling downward. In APS' integrated fiscal structure, the impairment of one element – say, fixed income credit ratings – inevitably has negative ramifications for every other element in the structure, whether equity, lines of credit, or collateral requirements.

I must also address Mr. Hill's claim that the 7.29% debt rate in our submission is "considerably higher than APS current embedded debt cost". Currently, APS has an embedded cost of debt of 5.41%. This 5.41% includes $656 million of tax-exempt pollution control bonds that carry an average interest rate of 3.6%. Obviously, new, taxable debt issued under more adverse conditions will carry an interest rate that exceeds an average embedded rate that is heavily influenced by low cost, tax-exempt debt.

Q. IN THE SAME PARAGRAPH ON PAGE 4 OF HIS SURREBUTTAL TESTIMONY, MR. HILL CONTINUES WITH:

> **THE ADDITION OF MORE THAN HALF A BILLION DOLLARS OF DEBT TO THE "RUCO PROJECTION" CAUSES THE COMMON EQUITY RATIO TO DECLINE TO 43.8%. OF COURSE, THAT DOES NOT REPRESENT RUCO'S RECOMMENDED CAPITAL STRUCTURE IN THIS PROCEEDING, AND THE USE OF THAT MORE DEBT-HEAVY CAPITAL STRUCTURE [AND] HIGHER DEBT COST BY MR. BRANDT IN PROJECTING THE RESULTS OF RUCO'S CASE WOULD TEND TO EXAGGERATE ANY DEBT-RELATED BOND RATINGS BENCHMARKS SUCH AS THE FFO/DEBT RATIO.**

HOW DO YOU RESPOND?

A. Mr. Hill effectively proves my position with this statement. Mr. Hill projects a 50/50 debt/equity capital structure for APS, but circumstances must allow for this to occur. To keep any capital structure unchanged, cash inflow must match cash outflow. As previously reviewed, reducing cash inflows by $420 million will increase debt levels and reduce the common equity percentage in the capital structure. Rather than "exaggerate any debt-related bond ratings benchmarks", implementation of his recommendation would lead directly to non-investment grade "junk" ratings.

Q. ON PAGE 4 OF HIS SURREBUTTAL TESTIMONY, MR. HILL POINTS OUT AN APPARENT DISCREPANCY IN THAT YOUR DIRECT TESTIMONY PROJECTS, ASSUMING APS' RATE PROPOSAL IS ADOPTED, APS' 2007 FFO/DEBT RATIO TO BE 22%, WHEREAS YOUR REBUTTAL TESTIMONY FORECASTS AN FFO/DEBT RATIO OF 19.2%. WHY HAVE THE RATIOS CHANGED?

A. I included forecasts pertaining to the 2007 FFO/Debt ratios of 21.9% in my direct testimony and 19.2% in my rebuttal. Timing accounts for this difference. We based the 21.9% on the assumption that the rate increase would take effect on January 1, 2007. The 19.2% assumes APS' proposed rate increase becomes effective May 1, 2007 – five months later, and resulting in $132 million less revenue.

On page 4 of his surrebuttal testimony, Mr. Hill states that "These data indicate that Mr. Brandt's projection matrix is different now tha[n] it was when he filed his Direct Testimony." I can only guess what Mr. Hill's term "matrix" means, but I can state that our projection process, rigor, and methodology have not changed. Rather, we regularly update forecasts for likely changes, such as the five-month shift in the likely effective date of new rates.

Q. ON PAGE 5 OF HIS SURREBUTTAL TESTIMONY, MR. HILL STATES THAT APS' FFO/DEBT RATIO HAS BEEN IN STANDARD & POOR'S ("S&P") "BB" RANGE SINCE 2004 AND HE THEN CONCLUDES UPON THIS STATEMENT THAT THE FFO/DEBT RATIO IS NOT, ALONE, DETERMINATIVE OF BOND RATINGS, AS THE COMPANY IMPLIES. HOW DO YOU RESPOND?

A. Mr. Hill's statement and conclusion do not reflect an accurate view of S&P's position.

APS began 2004 with an existing S&P business profile of "5". Such a business profile established an acceptable FFO/Debt range of 15%-22% for a "BBB" investment grade rating. In late December 2005, S&P lowered APS' business

profile to a "6", reflecting a higher perceived level of business risk. The riskier business profile of "6" requires a more stringent and higher FFO/Debt range of 18%-28% to maintain a "BBB" investment grade rating. Thus, contrary to Mr. Hill's statement, APS' FFO/Debt ratio did not fall into S&P's "BB" non-investment grade range in 2004 or any other date prior to late December 2005.

Q. IS THE FFO/DEBT RATIO THE SOLE DETERMINANT OF BOND RATINGS?

A. No. I have consistently stressed the importance of credit metrics in the analysis of a company's financial health. Of those metrics, the FFO/Debt is the most important because it captures aspects of both interest coverage (FFO Interest Coverage ratio) and the degree of leverage (Debt to Capital ratio). The combination of business risk and financial metrics ultimately determines the credit quality of any company. In particular, allow me to call your attention to the list of business risks Mr. Hill enumerates on page 5 of his rebuttal testimony. Significantly, he fails to include regulatory risk. In a recent article dated September 14, 2006 and entitled *Key Credit Factors: Assessing U.S. Vertically Integrated Utilities' Business Risk Drivers* (**Attachment DEB-1RJ**), S&P stated that regulatory risk is a key driver in assessing credit quality:

> ...the quality of regulation and management loom considerably larger than markets, operations, and competitiveness in shaping overall financial performance. Policies and practices among state and federal regulatory bodies will be key credit determinants.

In the same article, S&P goes on to state how they assess the quality of regulation:

> ...our evaluation of regulation focuses on the willingness and ability of regulation to provide cash flow and earnings quality adequate to meet investment needs, earnings stability through timely recognition of volatile cost components such as fuel and satisfactory returns of invested capital and equity.

Rating agencies weigh many factors in determining the financial health of a Company – particularly in the case of a utility, its regulatory environment – prior to assigning a credit rating.

IV. CONSTRUCTION WORK IN PROGRESS IN RATE BASE, ACCELERATED DEPRECIATION AND ATTRITION ADJUSTMENTS

Q. STAFF WITNESS DITTMER AND RUCO WITNESS HILL ASSERT THAT IT IS INAPPROPRIATE FOR THE COMPANY TO BE PROPOSING ADJUSTMENTS TO IMPROVE APS' CREDITWORTHINESS AT THIS STAGE IN THE REGULATORY PROCEEDING. HOW DO YOU RESPOND?

A. Contrary to their assertions, I believe it would have been inappropriate for APS not to provide proposed solutions of this sort. I prepared Section IV of my rebuttal testimony in response to a specific request by Chairman Hatch-Miller in a July 21, 2006 letter to APS' Counsel Mr. Mumaw (**Attachment DEB-11RB**). Obviously, the letter came months after we had filed direct testimony. As the letter makes clear, a July 19, 2006 S&P publication **(Attachment DEB-12RB)** partially triggered the letter. While all the parties to this case, including APS, would have preferred more time to prepare their responses, at the risk of presumption, I assume that the Chairman and all the other Commissioners appreciate the benefit of acting proactively and timely, rather than after the opportunity has passed and irreversible negative financial consequences accrue to both APS and its customers. Moreover, this certainly is not the first time that

APS or Staff has provided testimony in the course of a rate case in direct response to a request from a Commissioner that it do so.

Q. ON PAGE 32 OF HER SURREBUTTAL TESTIMONY, RUCO WITNESS DIAZ CORTEZ CLAIMS THAT APS' PROPOSAL WOULD "BOOST EARNINGS" THROUGH ACCELERATED DEPRECIATION AND ALLOW APS AUTOMATICALLY TO INCREASE ANNUALLY ITS RATES. DO YOU AGREE WITH HER INFERENCES?

A. No. She has mischaracterized both our reasoning for and the intended effect of accelerated depreciation.

First, Ms. Diaz Cortez's characterization of APS' accelerated depreciation proposal as a means to "boost earnings" misconstrues our objective. APS designed its two proposals (allowance of accelerated depreciation and CWIP in rate base) as a considered response to Chairman Hatch-Miller's July 21st letter (Attachment DEB-11RB). The effect of both proposals would improve APS' creditworthiness as a result of increasing cash flow. Increasing cash flow does not necessarily lead to or flow from improved earnings. Staff witness Dittmer clearly recognizes this dichotomy in his surrebuttal testimony:

> ...it should be clearly understood that some Company proposals would offset earnings attrition, while **other proposals would do very little to alleviate earnings attrition**, but would nonetheless, enhance cash flow to the Company that would, in turn, improve cash flow metrics that would assist in maintaining the Company's credit ratings. (Dittmer surrebuttal, p. 10, emphasis added)
>
> Because there would be an increase in the recording of depreciation expense that would be equivalent to the increase in revenues being collected, the **Company would not experience any reduction in earnings attrition**. However, depreciation is a "non-cash" expense. Accordingly, the recovery of depreciation expense on an accelerated basis **would improve the Company's cash flow metrics**. (Dittmer surrebuttal p. 16, emphasis added)

Likewise, we have not requested an "automatic depreciation expense adjustor" contrary to Ms. Diaz Cortez's assertion on page 32. APS has asked to include an additional $50 million of depreciation expense in cost of service for determining rates in this case. If the Commission grants this proposal, and putting aside other future rate changes, APS would annually record an additional $50 million of depreciation expense. As Staff witness Dittmer correctly notes, the additional depreciation expense would offset any additional revenues allowed in this case. Consequently, APS' **earnings would remain the same** but, importantly, cash flow and credit metrics would improve. This should contribute to the stabilization of and potential improvement of APS' credit ratings. Ultimately, this would save our customers money.

Q. CWIP IN RATE BASE IS A CONCEPT THAT HAS BEEN USED IN VARIOUS REGULATORY JURISDICTIONS, INCLUDING ARIZONA, IN THE PAST. DO YOU DISAGREE WITH RUCO WITNESS DIAZ CORTEZ' CONCERNS OVER THIS APS PROPOSAL?

A. Yes. Ms. Diaz Cortez states that utility commissions have made an exception to standard ratemaking treatment and included CWIP in rate base "but only as a result of extraordinary circumstances". (Diaz Cortez rebuttal, p. 34). Unfortunately, APS finds itself in exactly such extraordinary circumstances today. We stand on the brink of non-investment grade credit ratings. If the Company descends into "junk" status, many years might pass before the credit ratings could regain investment grade status, and the avoidable financial consequences would stagger our customers, the economy, and APS. Thus, we believe circumstances warrant the inclusion of CWIP in rate base at this time.

Q. WHY DO YOU BELIEVE THE PROPOSED CONCEPT OF AN ATTRITION ALLOWANCE HAS BEEN MET WITH SUCH EXTREME RESISTANCE BY THE STAFF AND RUCO WITNESSES?

A. We understand that, traditionally, ratemaking in Arizona has not included an attrition allowance. However, APS does not find itself in a typical situation. Concerns raised by Staff and RUCO include the potential use of forecasted data in determining the allowance, ignoring the historical test year paradigm, and the impact of providing the Company a certain level of profitability on cost-effective operations. These objections ignore the call for innovative thinking in the face of the demands of a growing service territory. We have identified several means to restore, and possibly improve our credit standing. We urge the Commission to examine them closely.

Regulatory lag gives rise to many of these issues. We must fashion a solution to reduce significantly regulatory lag so that APS has a reasonable chance to earn its allowed ROE. Should this occur, the rating agencies and those investors who purchase our debt and equity will do so with renewed confidence – and lower costs.

Q. HAS S&P ADDRESSED THE ISSUE OF REGULATORY LAG?

A. Yes. S&P recognizes the importance of utility commissions addressing the issue of regulatory lag, especially in circumstances like those of APS. In a recent publication titled *Key Credit Factors: Assessing U.S. Vertically Integrated Utilities' Business Risk Drivers*, September 14, 2006 (**Attachment DEB-1RJ**) S&P states:

> Standard & Poor's assessment of the regulatory environments in which a utility operates is guided by certain principles, most prominently consistency and predictability as well as efficiency and timeliness. For a regulatory scheme to be considered supportive of credit quality, commissions must limit uncertainty in the recovery of a utility's investment. They must also eliminate or at least greatly

> reduce the issue of rate-case lag, especially when a utility engages in a sizable capital expenditure program and incurs substantial deferrals of fuel costs....

Q. HAS THE INVESTMENT COMMUNITY REACTED TO APS' PROPOSED ALTERNATIVE RATE ADJUSTMENTS INCLUDED IN ITS REBUTTAL TESTIMONY?

A. Yes. On September 18, 2006, Mr. Dan Eggers of Credit Suisse Equity Research (a highly respected Wall Street utility equity analyst) published a research report, *A Case for Cash* (**Attachment DEB-2RJ**), that addressed APS' rebuttal testimony, including the proposed alternative rate adjustment mechanisms. The report states:

> We believe that APS did an effective job highlighting potential credit impact that would come if unable to recover prudently incurred cash expenditures.
>
> ...the ACC understands the importance of APS's financial health and the negative ramifications for customers if such health is not maintained.
>
> ...PNW also introduced for ACC consideration two rate making changes that would further support the utility's financial health and ideally allow APS to earn its allowed ROE – attrition cost adjustments...and CWIP...We believe both adjustments are warranted and would be beneficial to APS's financial health...
>
> ...**Adoption of these changes would mark a constructive evolution of Arizona regulatory policy**, demonstrating a willingness to provide support for APS's efforts in meeting AZ's robust population growth.

Q. WHY IS IT IMPORTANT FOR THE COMMISSION TO CONSIDER ALTERNATIVE RATE ADJUSTMENTS AT THIS TIME?

A. APS stands on the brink of non-investment grade ratings. APS must maintain its investment grade credit ratings to ensure access to the capital markets at

reasonable costs. These ratings would serve the best interests of APS' customers and the future economic growth of Arizona. As a matter of course, the Commission must consider the financial health of APS in setting rates. We suggest it should also consider alternative rate adjustment mechanisms to ensure the ability of APS to meet its service and financial obligations.

V. CAPITAL STRUCTURE

Q. DO YOU AGREE WITH MR. HILL'S RECOMMENDATION REGARDING APS' CAPITAL STRUCTURE?

A. No. Mr. Hill recommends a 50% common equity ratio. Contrary to Mr. Hill's statement that this capital structure "provides financial safety for the Company during its construction cycle", the low equity ratio will instead result in a financially weaker APS at just the time it requires cost-effective access to the capital markets to fund that construction cycle. The adoption and implementation of RUCO's proposed 50%-equity/50%-debt capital structure and its other recommendations would reduce the Company's credit metrics to non-investment grade. This would result in financial catastrophe and soaring costs to both APS and its customers.

Q. DO YOU AGREE WITH MR. HILL'S RATIONALE FOR THE 50% COMMON EQUITY RATIO?

A. No. Mr. Hill recommends a 50% equity ratio because it exceeds the previously approved 45% level. However, we must evaluate APS' capital structure in this particular case at this critical point in time and not primarily on prior decisions in this or other jurisdictions. APS must maintain a strong financial profile to ensure access to the capital markets as the Company finances the capital expenditures required to meet the growing energy needs of its customers. A 54.5% common equity ratio will provide that strong financial profile.

VI. RETURN ON COMMON EQUITY

Q. DO YOU AGREE WITH MR. HILL'S CONTINUED USE OF THE COMPANY'S PROJECTED PENSION FUND RETURNS AS EVIDENCE THAT HIS RECOMMENDED 9.25% ROE IS REASONABLE?

A. No. The projected equity returns he refers to apply to returns on pension assets but not to APS' ROE. Projected equity returns reflect an estimate of an entire asset class and include the impact of the diversification of many stocks. An individual stock can have significantly higher or lower return expectations than other stocks in the same asset class. Realistically, we cannot deem APS a typical utility stock that possesses the usual lower risk profile. In order to induce investors to purchase our securities, we have to offer them a higher return to offset the many risks that APS faces (native load growth, fuel prices, wholesale energy markets, and credit downgrades). Therefore, I agree with Dr. Avera's conclusion that APS needs a minimum 11.5% ROE.

VII. RUCO'S PROPOSED SERP PRO FORMA

Q. HOW DO YOU RESPOND TO RUCO WITNESS DIAZ CORTEZ'S SURREBUTTAL TESTIMONY (P. 8) REGARDING RUCO'S PROPOSAL TO DISALLOW THE COST OF APS' SUPPLEMENTAL EXCESS BENEFIT RETIREMENT PLAN ("SERP")?

A. Ms. Diaz Cortez continues to offer a number of inapposite arguments, none of which accurately describe or characterize SERP costs and their critical importance to APS' ability to attract and retain well-qualified employees.

First, Ms. Diaz Cortez persists in describing APS' SERP program as a "perk", gratuitously likening it to "the same arguments utilities made back in the 1980's for rate recovery of employee benefits and perks." She concludes this critique by writing that these "arguments may have had some degree of merit at the time, they do not now. We live in a dynamic environment." Of course, we agree we

operate in a dynamic environment and, seen in that light, one cannot dismiss cavalierly APS' SERP program as a frivolous "perk". In point of fact, the SERP program is an integral component of APS' total compensation package for senior management employees, much in the same manner as other companies with whom we compete for well-qualified candidates.

Second, she states, "Times have cha[n]ged, costs have risen, and industry has changed the way it conducts business in response to current dynamics". While this statement reflects a generally accurate view of a broad business reality, it bears little relevance to SERP programs. Indeed, the relevant reality reveals that seventy percent (70%) of the 500 companies in the S&P 500 Index, and virtually all electric utilities offer a defined benefit pension plan to their employees and essentially all of those companies offer a SERP program.

Third, she argues by attenuated analogy for her position by stating, "Companies no longer provide 100% free health care to employees, but rather require employees to fund a portion of those costs." I can find no relevance whatsoever in this claim to APS' SERP program.

Fourth, she states, "many companies have done away with defined pension plans for new hires". Ms. Diaz Cortez does not offer any specific examples to support her contention. She fails to mention that companies, including IBM, typically have offered enhanced 401-K savings plans to their new hires in lieu of a defined benefit pension plan. Most significantly, "new hires" has no relevance to APS' SERP program, in particular. Participants in the SERP program have an average of more than 20 years of service with APS. APS has long

maintained its accounting and regulatory treatment of its SERP with the approval of this Commission.

Finally, she notes, "...non-regulated companies have had to modify the manner in which they do business in order to remain competitive. It should be no different for a regulated company". We agree. In common with companies throughout the country, SERP programs comprise an integral component of total compensation for senior managers. In response to the demands of the nationwide marketplace and the intense economic competition for scarce resources – highly qualified employees – APS has acted no differently.

Q. ON PAGE 8 OF HER SURREBUTTAL TESTIMONY, MS. DIAZ CORTEZ STATES THAT THE COMMISSION VALIDATED HER SERP ARGUMENTS IN THE RECENT SOUTHWEST GAS RATE CASE (DECISION NO. 68487). HOW DO YOU RESPOND?

A. APS does not believe the particular facts and the resulting Commission determination in the Southwest Gas case apply in the instant case. Neither RUCO nor any other witness has offered evidence that would support a finding to disallow SERP costs with regards to APS. Our employee compensation levels remain modest in comparison with our industry peer group and with corporations in more broadly defined market segments.

VIII. PRO FORMA ADJUSTMENTS REGARDING UNDERFUNDED PENSION LIABILITY

Q. ON PAGE 27 AND 28 OF HIS SURREBUTTAL TESTIMONY, STAFF WITNESS DITTMER STATES THAT "THE SINGLE STRONGEST ARGUMENT FOR REJECTION" OF APS' PROPOSAL TO ACCELERATE THE RECOVERY OF ITS UNDERFUNDED PENSION LIABILITY "IS THAT SUCH UNDERFUNDED LIABILITY IS ALREADY BEING CONSIDERED WITHIN THE FAS 87-DETERMINED PENSION EXPENSE UPON WHICH RATES ARE BEING SET IN THE PROCEEDING". FURTHER, MR. DITTMER STATES, "MR. BRANDT'S TOTAL DISREGARD FOR THIS ARGUMENT DOES NOT

CAUSE IT TO LOSE ITS VALIDITY." HOW DO YOU RESPOND TO HIS STATEMENTS?

A. Mr. Dittmer advocates maintenance of the status quo, whereas APS actively seeks a real solution to the problem at hand. As stated in my rebuttal testimony, we firmly believe that we and the Commission should address pension funding at this time. Companies in all industries across the nation face this important issue. Without additional funding, the Company's pension plan will likely remain in a seriously underfunded position for the foreseeable future.

Mr. Dittmer argues that the underfunded liability falls within FAS 87[2] determined pension expense and points out a 20-year history of similar pension expense treatment in APS rate cases. Thus, he essentially argues that, if we defer consideration of this problem long enough, it might just go away. Such hopes rarely come to fruition.

The "net amortization of actuarial losses" component of annual pension expense referred to by Mr. Dittmer amounted to only $6 million. APS' proposed $44 million annual adjustment was based on a five-year amortization of the $218 million underfunded pension liability that existed on December 31, 2004. During the one-year period between December 31, 2004 and December 31, 2005, the unfunded pension liability grew from $218 million to $249 million, an increase of $31 million or 14.2%. Thus, if we rely solely on the $6 million annual amount to solve the problem, it would take at least 42 years. Significantly, the underfunded liability grew by $31 million in the course of one year, and that exceeds greatly the $6 million Mr. Dittmer terms as "at least a

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[2] Statement of Financial Accounting Standards No. 87, *Employers' Accounting for Pensions.*

partial double recovery of such underfunded liability" (Dittmer surrebuttal, p. 28).

Q. ON PAGE 29 OF HIS SURREBUTTAL TESTIMONY, MR. DITTMER ASSERTS THAT THE COMPANY HAS NEVER EXPLAINED THE MECHANICS OF HOW APS WILL REFUND TO CUSTOMERS THE MONIES THAT IT PROPOSES TO COLLECT ON AN ACCELERATED BASIS. HOW DO YOU RESPOND?

A. Mr. Dittmer has inaccurately assessed the situation. APS witness Rockenberger's direct testimony (pp. 24-25) explains the APS proposal:

> This adjustment is intended to accelerate the recovery of our underfunded pension liability over a five-year period beginning in 2007. This would be accomplished by increasing pension expense and establishing a regulatory liability. Amounts collected under this adjustment would be contributed to the pension plan. Since the recovery is accelerated, the Company is proposing a ten-year amortization of this regulatory liability, beginning in 2012. This would have the impact of reducing future pension expense during the amortization period.

Clearly, APS would establish a regulatory liability on APS' balance sheet as a result of the accelerated amounts collected during the first five-year period. Then, the regulatory liability balance would be amortized to reduce cost of service expense over the subsequent ten-year amortization period.

Q. ON PAGE 30 OF HIS SURREBUTTAL TESTIMONY, MR. DITTMER EXPRESSES CONCERN ABOUT "WHERE WILL THE MONEY TO REFUND FUTURE RATEPAYERS ACTUALLY COME FROM." AND ON PAGE 33 OF HIS SURREBUTTAL TESTIMONY, MR. DITTMER STATES, "IT IS REASONABLE TO EXPECT THAT APS' CASH FLOW POSITION WILL BE WORSENED AS IT ATTEMPTS TO 'REFUND' THE ACCELERATED COLLECTIONS TO CUSTOMERS..." HOW DO YOU RESPOND?

A. Mr. Dittmer has incorrectly evaluated the situation. APS' cash flow position will not worsen: rather, it will improve. The additional cash contributions to the pension plan over the first five-year period are designed to eliminate the pension

underfunded position. That action, in and of itself, should substantially reduce the need for future pension fund contributions. Further, with the additional monies in the pension fund, pension fund investment earnings will be higher than otherwise.

Q. MR. DITTMER DEVOTES ALL OF PAGE 31 OF HIS SURREBUTTAL TESTIMONY TO THE QUESTION, "CAN THE COMPANY JUST TAKE THE REFUND MONEY OUT OF THE PENSION TRUST?" CAN YOU CLARIFY THIS ISSUE?

A. Quite simply, APS cannot legally take money out of the pension trust. Furthermore, none of the APS testimony on this subject, or APS responses to data requests ever said or suggested APS planned to take money out of the trust.

Q. ON PAGE 32 OF HIS SURREBUTTAL TESTIMONY, MR. DITTMER STATES, "THE COMPANY'S PROPOSAL TO RECOVER THE UNDERFUNDED PENSION LIABILITY ON AN ACCELERATED BASIS WILL DO NOTHING TO ENHANCE CASH FLOW, IMPROVE ITS FFO RATIO, OR ASSIST IT IN MAINTAINING ITS BOND RATING." DO YOU AGREE?

A. No, I do not agree with any of Mr. Dittmer's points on the subject.

Accelerated contributions to the pension plan would substantially reduce the need for future pension fund contributions. This result alone would substantially improve the FFO/Debt ratio and assist APS in maintaining its bond ratings.

Furthermore, both the Financial Accounting Standards Board and the credit rating agencies have taken a keen interest in the funded status of pension funds. As I stated on page 62 of my rebuttal testimony:

> ...the Financial Accounting Standards Board is expected to issue new rules later this year that will require companies to record on their balance sheets the funded status of their pension plans using the PBO [Projected Benefit Obligation] measure. Importantly, the rating agencies use the PBO when calculating credit metrics.

In late September 2006, the Financial Accounting Standards Board issued, Statement of Financial Accounting Standards No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans* ("FAS 158"). FAS 158 prescribes:

> A business entity that sponsors one or more single-employer defined benefit plans **shall recognize the funded status** of a benefit plan – measured as the difference between fair value of plan assets and the benefit obligation – in its statement of financial position [**balance sheet**]. For a pension plan, the benefit obligation shall be the **projected benefit obligation**. (emphasis added)

FAS 158 requires that APS adopt this new accounting standard in 2006. Accordingly, APS' year-end 2006 balance sheet will reflect a liability for the unfunded PBO-based pension liability balance.

Establishing this mechanism would eliminate the underfunded status of APS' pension plan. Both Moody's[3] and S&P would regard this as a positive development.

Q. MR. DITTMER DEVOTES PAGES 33 THROUGH 37 OF HIS SURREBUTTAL TESTIMONY TO HIS "INTERGENERATIONAL EQUITY" CONCERN. HOW DO YOU RESPOND?

A. In the Q&A on page 33, Mr. Dittmer incorrectly states that I "rationalize[d]" based on my understanding of the Projected Benefit Obligation ("PBO") measure of pension liability. The facts support my understanding, not Mr. Dittmer's.

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[3] Moody's Investors Service.

On page 34 of his surrebuttal testimony, Mr. Dittmer responds to the question "Who is correct?" on the matter of whether or not the PBO includes or excludes future years of service. He explains that "this is a highly technical area" and "definitions within FAS 87 are difficult even for accountants to understand". Paradoxically, Mr. Dittmer then claims that he "was – and continues to be – technically correct" on his direct testimony when he stated the PBO "considers past pay and years of service as well as *future pay increases and years of service*". In fact, the PBO does NOT consider future years of service, and we do not believe Mr. Dittmer's statement to be correct, technically or otherwise. I have quoted below the text of FAS 87 concerning the definition of the PBO which Mr. Dittmer characterized as "highly technical" and "difficult even for accountants to understand":

> **Projected Benefit Obligation**
> The actuarial present value as of a date of all benefits attributed by the pension formula to **employee service rendered prior to that date**. The projected benefit obligation is measured using assumptions as to future compensation levels if the pension benefit formula is based on those future compensation levels (pay-related, final-pay, final-average-pay, or career-average-pay plans). (emphasis added)

The accountants with whom I associate would understand this definition and correctly conclude that "employee service rendered prior to that date" means the PBO does not consider future years of service.

Q. ON PAGE 36 AND 37 OF HIS SURREBUTTAL TESTIMONY, MR. DITTMER STATES:

> **AS NOTED ON TABLE D INCLUDED WITHIN MY DIRECT TESTIMONY, THE COMPANY'S CALCULATED FUNDING POSITION AT ANY POINT IN TIME TENDS TO FLUCTUATE FAIRLY**

SIGNIFICANTLY. IT IS NOT UNUSUAL FOR THE PENSION TRUST TO BE FAIRLY SIGNIFICANTLY OVER OR UNDERFUNDED AT A PARTICULAR POINT IN TIME.

DO YOU AGREE WITH HIS CONCLUSIONS REGARDING SIGNIFICANT FLUCTUATIONS IN THE PENSION PLAN FUNDED STATUS?

A. No, I do not agree with his conclusions.

Mr. Dittmer's Table D to his direct testimony sets forth the following percentages relative to the PBO funded status of the Company's pension plan:

Year	2001	2002	2003	2004	2005
% PBO Funded	104.94%	86.42%	68.08%	71.04%	71.62%

In addition, on page 2 of Mr. Mumaw's December 16, 2005 letter to Commissioner Mayes (Attachment DEB-16RB), the following table relative to the funded status of the Company's pension plan is set forth:

	12/31/00	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05
% Underfunded	3%	14%	32%	29%	28%	30%

The data set forth in either of these tables demonstrates that, contrary to Mr. Dittmer's conclusions, (1) the funded status of the pension plan does NOT "fluctuate fairly significantly" and (2) the pension plan has never been "significantly over funded". APS' December 16, 2005 letter to Commissioner Mayes (Attachment DEB-16RB) states on page 2:

> ...the underfunded percentage escalated rapidly over the years 2001 and 2002, and has since remained **relatively steady** at about 30% underfunded.

IX. CONCLUSION

Q. DO YOU HAVE ANY CONCLUDING REMARKS?

A. Yes. APS' investment grade credit ratings form the fundamental basis upon which the Company gains access to the capital markets at reasonable cost. APS requires the full amount of its proposed rate increase to improve its credit metrics to levels minimally acceptable for investment grade credit ratings. Failure of the Company to maintain investment grade ratings as a result of inadequate rate relief will have dire financial consequences for our customers and the future economic growth of Arizona.

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

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STANDARD & POOR'S RATINGSDIRECT

RESEARCH

Key Credit Factors:

Assessing U.S. Vertically Integrated Utilities' Business Risk Drivers

Publication date: 14-Sep-2006
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The methodology that Standard & Poor's Ratings Services uses to rate vertically integrated electric, gas, and combination investor-owned utilities in the U.S. is based on the same precepts that we have used for many years, though the emphasis has changed as the utility industry has evolved. The fundamental methodology encompasses two basic components--business risk and financial risk--and their relationship. Where a utility presents a strong business risk profile, the financial profile can be less robust for any given rating. Likewise, where a utility's business risk profile is weaker, its financial performance must be stronger for any given rating. For combination utilities, the gas operations may have a stabilizing influence on credit quality, but since the electric business is typically significantly larger, it is the major credit driver. (For details on Standard & Poor's analytical approach to gas utilities, see "Key Credit Factors For Natural Gas Distributors" published Feb. 28, 2006.)

Often, an integrated utility is a part of a larger holding company structure that also owns other businesses, frequently unregulated electricity generation. This fact does not alter how we analyze the utility, but it may affect the ultimate rating outcome due to any credit drag that the unregulated activities may have on the utility. Such considerations include the freedom and practice of management with respect to shifting cash resources among subsidiaries and the presence of ring-fencing mechanisms that may protect the utility.

Five Factors Determine The Business Profile

Five basic characteristics define a vertically integrated utility's business profile:

- Regulation,
- Markets,
- Operations,
- Competitiveness, and
- Management.

Standard & Poor's is most concerned about how these elements contribute individually and in aggregate to the predictability and sustainability of financial performance, particularly cash flow generation relative to fixed obligations. While considerable attention has focused in recent years on companies in states that deregulated in the late 1990s and the early part of this decade and the related credit consequences of disaggregation and nonregulated generation, 27 states (plus four that formally reversed, suspended, or delayed restructuring) have retained the traditional regulated model. For utilities operating in those states, the quality of regulation and management loom considerably larger than markets, operations, and competitiveness in shaping overall financial performance. Policies and practices among state and federal regulatory bodies will be key credit determinants. Likewise, the quality of management, defined by its posture towards creditworthiness, strategic decisions, execution and consistency, and its ability to sustain a good working relationship with regulators, will be key. Importantly, however, it is virtually impossible to completely segregate each of these characteristics from the others; to some extent they are all interrelated.

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On Standard & Poor's business profile scale (where '1' is excellent and '10' is vulnerable), vertically integrated utilities generally have satisfactory business profiles of '5' or '6'. (See tables 1 and 2 in the Appendix below for business profile benchmarks plus a list of utilities we rate and their business profile scores.) We view a company that owns regulated generation, transmission, and distribution operations, as positioned between companies with relatively low-risk transmission and distribution operations and companies with higher-risk diversified activities on the business profile spectrum. What typically distinguishes one vertically integrated utility's business profile score from another is the quality of regulation and management.

Regulation

Regulation is a critical aspect that underlies integrated utilities' creditworthiness. Decisions by state public service commissions can profoundly affect financial performance. Standard & Poor's assessment of the regulatory environments in which a utility operates is guided by certain principles, most prominently consistency and predictability, as well as efficiency and timeliness. For a regulatory scheme to be considered supportive of credit quality, commissions must limit uncertainty in the recovery of a utility's investment. They must also eliminate, or at least greatly reduce, the issue of rate-case lag, especially when a utility engages in a sizable capital expenditure program and incurs substantial deferrals of fuel costs.

Standard & Poor's evaluation encompasses the administrative, judicial, and legislative processes involved in state and federal regulation, and includes the political environment in which commissions render decisions. Regulation is assessed in terms of its ability to satisfy the particular needs of individual utilities. Rate-setting actions are reviewed case-by-case with regard to the potential effect on credit quality. As frequently postulated in prior years, our evaluation of regulation focuses on the willingness and ability of regulation to provide cash flow and earnings quality adequate to meet investment needs, earnings stability through timely recognition of volatile cost components such as fuel and satisfactory returns on invested capital and equity. Regulators' authorization of high rates of return is of little value unless returns are realistic and achievable. Allowing high returns based on noncash items does not benefit bondholders. A regulatory jurisdiction that permits incentives whereby utilities are allowed to earn a return based on their ability to sustain rates at competitive levels is viewed favorably. In addition to performance-based rewards or penalties, flexible plans could include market-based rates, price caps, index-based prices, and rates premised on the value of customer service. Also important is the ability to enter into long-term arrangements at negotiated rates without having to seek regulatory approval for each contract.

Because the bulk of a utility's operating expenses relate to fuel and purchased power, of primary importance to rating stability is the level of support that state regulators provide to utilities for fuel cost recovery, particularly as gas and coal costs have risen. Utilities that are operating under rate moratoriums, or without access to fuel and purchased-power adjustment clauses or with fixed-fuel mechanisms, or face significant regulatory lag, also are subject to reduced operating margins, increased cash flow volatility, and greater demand for working capital. Companies that are granted fuel true-ups may be required to spread recovery over many years to ease the pain for the consumer. Standard & Poor's notes that fuel-adjustment mechanisms have become more common in the industry, but not all are created equal. While some jurisdictions permit recovery on a dollar-for-dollar basis over a defined time period, certain jurisdictions, such as Washington State, impose a deadband in which the company absorbs all the risk and rewards of fuel costs above and below the established recovery rate. Beyond the deadband there is a sharing of risks and rewards with ratepayers. In Arizona, Arizona Public Service Co. has a 90/10 sharing mechanism between the company and ratepayers, respectively, for all costs passed through the power supply adjuster. The mechanism is triggered based on a date (once a year in February 2006) and not on a threshold level of deferrals. The annual adjustment is also subject to a lifetime cap of 4 mils per kilowatt-hour, which has led to power deferrals.

In addition to fuel cost recovery filings, regulators will have to address significant rate increase requests related to new generating capacity additions, environmental modifications, and reliability upgrades. Current cash recovery and/or return by means of construction work in progress support what would otherwise be a sometimes significant cash flow drain and reduces the utility's need to issue debt during construction.

Moreover, allowing rate recovery of projected costs with subsequent periodic updates for actual results reduces lags in cost recovery. Also supportive of credit quality is the ability of the utility, commission staff,

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consumer advocates, and other major interveners to reach a comprehensive settlement before construction of new base load capacity. Certain states, such as Indiana, Texas, Kansas, and Minnesota, have adopted environmental tracking mechanisms and other riders that allow companies to reflect in rates capital costs associated with environmental compliance equipment without having to file a formal rate case. In Florida, utilities may issue securitized debt to recover storm costs after the public service commission completes a prudency review. However, if the utilities do not choose securitization, then they may file a request with the regulatory commission to get a surcharge. In either situation, there will be some delay in recovering the costs, but the delay should be minimized compared with previous years.

Creditworthiness can also be enhanced when a company has the authority to timely recover unanticipated costs, such as those incurred for repairing storm damage, as in Florida and Mississippi. While the Alabama Public Service Commission does not currently employ a separate storm repair cost recovery mechanism to ensure rapid recovery of storm repair costs, it has shown a willingness to work with utilities to help them recover at least some of these costs on a timely basis and to start replenishing storm reserves. Finally, the greater the percentage of a utility's rates that are recovered through fixed charges rather than volume-based charges, the greater the support for credit quality.

For utilities that own a natural gas business, automatic and timely pass-through of commodity costs provides the strongest level of credit support. Lesser clauses, including mechanisms that require after-the-fact sign-off by regulators, introduce the potential for disallowance if the regulator deems gas to be purchased at imprudent cost levels.

Due to the extreme volatility and high gas prices over the past few heating seasons, more regulators have revised gas adjustment clauses to provide monthly gas adjustments rather than awaiting the end of the heating season to begin reimbursement. This expedited treatment helps the utility to reduce any regulatory lag to recover costs and streamlines working capital needs, which in turn should allow the firm to modestly temper rising gas bills to their customers.

Both regulators and natural gas companies are increasing customer-education programs on energy efficiency and conservation. Lawmakers, state regulators, and companies are in preliminary discussions to potentially restructure the current rate structures to encourage these goals of energy conservation and efficiency without hurting the company's bottom line and still allow utilities to achieve their approved regulated rate of return. In essence, "conservation tariffs" would aim to decouple earnings and rates of return from delivered volumes and should eliminate a current major disincentive for utilities to develop such conservation programs. This would also better align the interest of consumers with utility shareholders by implementing innovative rate designs that would encourage energy conservation and efficiency.

Key success factors include:

- Alternative ratemaking/flexibility,
- Attention to credit quality,
- Timely and consistent rate treatment,
- Support for fuel cost recovery,
- Support for a reasonable cash return on investment, and
- Support for rapid return on investment.

Markets

Assessing market dynamics begins with an economic and demographic evaluation of the service area in which a utility operates. Strength of long-term demand for energy is examined from a macroeconomic perspective, which enables Standard & Poor's to measure the affordability of rates and the staying power of demand. Distribution by classification according to total number of customers, revenues, and margins is closely scrutinized to assess the depth and diversity of the utility's customer mix. For example, heavy industrial concentration is viewed with some caution because the utility may be exposed to cyclical volatility and face competitive alternatives. A large residential component, on the other hand, produces a more stable and predictable revenue stream. The utility's largest customers are identified to determine their stability and importance to the bottom line because the loss of one large customer could adversely affect the utility's financial position. Moreover, large customers may turn to self-generation, potentially

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leading to less financial protection for the utility.

Standard & Poor's also analyzes any long-term consumption trends and the reasons behind them. Factors addressed include the market's size and growth rate, the franchise's strength, historical and projected growth rates, income levels and trends in population, employment, and per capita income. A utility with a healthy economy and customer base, as illustrated by diverse employment opportunities, average or above-average wealth and income statistics, and low unemployment, will be better able to support its operations.

For the gas business, Standard & Poor's also examines customer saturation. Firms that operate in service areas with low growth potential still can expand at healthy rates if a relatively low level of customer saturation permeates the service territory. For example, customers who convert to natural gas from other fuel sources (such as oil) provide growth opportunities to companies operating in low population growth service areas.

Despite the review of market characteristics, they are clearly a secondary consideration to regulation. In Nevada, for years the country's fastest growing state, Nevada Power Co. and Sierra Pacific Power Co. struggled to recover capital expenditures on a timely basis, and were accordingly rated as low investment-grade credits. In Florida, which has competed with Nevada for years in its pace of growth, the Florida Public Service Commission established polices of quick recovery of capital investments and, on a stand-alone basis, the state's utilities' credit metrics have remained strong.

Critical success factors include:

- A healthy and growing economy,
- Growth in population and number of customers,
- An attractive business environment, and
- An above-average residential base.

Operations

Standard & Poor's focuses on cost, reliability, safety, and quality of service when assessing a utility's operations. Management is always under pressure to optimize the use of resources, and if it is not cost-effective in meeting service standards and reliability, regulatory or competitive pressures are likely to increase. Consequently, Standard & Poor's emphasizes areas that require heightened and ongoing management attention, in the absence of which political, regulatory, or competitive problems are likely to arise.

The status of utility plant investment is reviewed with regard to generating station availability, efficiency, and utilization, as well as for compliance with existing and potential environmental and other regulatory standards. The record of plant outages, system losses, equivalent availability, load factors, heat rates, and capacity factors are examined. Important considerations include the projected capital improvements and plant additions necessary to provide high-quality, reliable service. The general condition of the assets and how well such assets are maintained are also important considerations.

Emphasis is placed on reserve margins, fuel mix, fuel contract terms, purchased-power arrangements, and system operators. Moreover, the quality and concentration of capacity is just as important as the size of reserves. Standard & Poor's recognizes that reserve requirements differ among companies, depending upon individual operating and load characteristics.

Fuel diversity provides flexibility in a changing environment. Supply disruptions and price hikes can raise rates and ignite political and regulatory pressures that ultimately lead to erosion in financial performance. Thus, the ability to switch generating sources to take advantage of cheaper fuels is viewed favorably. Dependence on any single fuel, or asset concentration in one or two large generating stations, can cause significant swings in a company's financial performance. Similarly, utilities that rely on nuclear generation receive an elevated degree of attention due to the scale, technical complexity, and politically sensitive nature of nuclear facilities. Indeed, the sound operation of nuclear units can define a utility's operational risk profile and its ability to achieve projected financial results. Standard & Poor's seeks to distinguish between those operators that have exhibited sound and stable operational performance, and the likelihood

that it will continue, and those whose nuclear operations are vulnerable to problems that may impair financial results.

But having a large concentration of capacity based on fossil fuels also imposes certain risks. Coal-fired capacity is burdened with increased environmental costs related to reducing sulfur dioxide, nitrogen oxide, mercury, and eventually carbon dioxide emissions. Gas-fired capacity presents its own challenges, particularly the extreme volatility and significant increase in gas prices over the past few years. Buying power may be a more appropriate option for a utility than new plant construction because the utility avoids construction costs and the financial risks posed by regulatory lag when seeking recovery of costs. Purchasing power may enhance supply flexibility, fuel resource diversity, and maximize load factors. Utilities that plan to meet demand projections with a portfolio of supply-side options also may be better able to adapt to future growth uncertainties. Despite these benefits, such a strategy does commit the utility to a fixed obligation, which Standard & Poor's captures analytically through certain adjustments to financial statements. We calculate the net present value of future annual capacity payments (discounted at the company's cost of debt) over the life of the contract. Standard & Poor's then applies a risk factor against this value and adds the result to the utility's balance sheet. The risk factor is largely a function of the strength of the regulatory recovery mechanisms established to address procurement costs.

Other operational characteristics that will support an above-average evaluation for vertically integrated companies are assets that are in good physical condition and are well maintained. In addition, capital expenditures for necessary system improvements must be at manageable levels, yet sufficient to provide for constant renewal and refurbishment of the system. Operating performance, reliability statistics (such as outage duration and frequency), and efficiency measures are expected to meet industry and regional averages. Having interconnections that provide access to low-cost and diverse power supply sources is viewed favorably, as is limited environmental exposure.

For a gas company, drawing from a single interstate pipeline or relying on a particular gas basin exposes it to event risk and negative supply shocks, respectively. The ability to access multiple sources of gas supply through multiple pipelines protects the utility from such disruptions. Adequate storage access not only helps supply incremental gas needed to meet peak demand, but also provides opportunities without purchased-gas adjustment clauses to arbitrage seasonal pricing fluctuations. Gas distributors benefit from storage if the cost of buying peak gas exceeds the cost of making off-season purchases and the associated carrying cost. Outdated systems requiring extensive maintenance and capital expenditures lower profitability and efficiency metrics. Newly installed systems mainly consisting of plastic pipe require limited expenditures over the long term compared with older, cast-iron systems that need replacing as they age. In addition, operational efficiencies can be obtained through the use of new technology.

Critical success factors include:

- Well-maintained assets,
- Solid plant performance,
- Fuel diversity,
- Adequate generating reserves, and
- Compliance with environmental standards.

Competitiveness

For vertically integrated utilities, competitive factors include percentage of firm wholesale revenues that are most vulnerable to competition, industrial load, and revenue concentrations, particularly in energy intensive industries; exposure of key customers to alternative suppliers; commercial concentrations; rates charged to various customer classes; rate design and flexibility; production costs, both marginal and fixed; the regional capacity situation; and transmission constraints. A regional focus is evident, but high costs and rates relative to national averages are also of significant concern because of the potential for electricity substitutes over time.

Electricity competes with other fuels--particularly natural gas--for certain segments of the market like space heating, water heating, and cooking. Thus, high electricity prices, which can be attributed to inefficient operations, are cause for concern if customers have access to alternative energy sources. Self-generation has been a risk, as large commercial and industrial customers may take advantage of cogeneration

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technologies to reduce their reliance on, and in some cases to disconnect from the system. In the future, technology could pose a greater threat. Bypass risk, too, may grow if distributed generation, microgeneration, and self-generation prove more economically attractive for smaller customers.

Due to their proximity to interstate gas pipelines, some large customers can directly tie into a transmission line and completely bypass gas distributors' services. Although such pipelines provide key sources of gas supply for these companies, it is important to recognize this bypass risk. Ideally located gas companies have adequate transmission access but have industrial customers far from interstate pipelines.

Critical success factors include:

- Low cost structure,
- Limited bypass risk, and
- Management's commitment to lowering costs.

Management

Evaluating management is of paramount importance to Standard & Poor's analysis because management decisions affect all areas of a company's operations and financial health. Although regulation, the economy, and other outside factors certainly influence results, the quality of management ultimately determines a company's success. Standard & Poor's private meetings with senior management significantly augment the public record in the effort to appraise management. Meetings are very useful for the candid interpretation of recent developments and, importantly, to provide executives with a forum for the presentation of goals, objectives, and strategies.

Management assessment is based on tenure, turnover, industry experience, financial track record, corporate governance, a grasp of industry issues, and knowledge of regulation, of customers, and their needs. Management's ability and willingness to develop workable strategies to address system needs, and to execute reasonable and effective long-term plans are assessed. Management quality is also indicated by thoughtful balancing of multiple--and often incompatible--priorities; a record of credibility; and effective communication with the public, regulatory bodies, and the financial community.

Standard & Poor's also focuses on management's ability to achieve cost-effective operations and commitment to maintaining credit quality. This can be assessed by evaluating accounting and financial practices, capitalization and common dividend objectives, and the company's philosophy regarding growth and risk-taking.

In addition, a company's accounting and financing practices are critical to Standard & Poor's analysis. For example, proactive management will likely adopt accounting practices that are more appropriate in a competitive environment such as higher depreciation rates for electric generation equipment. Large, growing cost deferrals or regulatory assets are viewed more negatively. Management can enhance its financial condition by taking any number of discretionary actions, such as selling common equity, reducing the common dividend payout, and deleveraging. A utility's management will also be evaluated on cost-cutting ability and creativity in entering into strategic alliances that improve efficiency.

Strong corporate governance, reflected in active, independent board of directors that participate in determining and monitoring corporate controls, help to support management's credibility and corporate financial disclosure. If it is evident that a company's board is passive and does not exercise proper oversight, it weakens the checks and balances of the organization and may detract from credit quality. Included in Standard & Poor's review of corporate governance is the proportion of independent directors on the board, the breadth and depth of the directors' experience, the proportion of independent directors on the board's audit committee, and directors' compensation.

Some vertically integrated utilities have felt compelled to invest outside their traditional businesses to increase earnings, especially as stock prices have underperformed market indices. Participation in higher-risk, unregulated activities such as merchant generation, exploration and development, gathering and processing, or marketing and trading can significantly detract from the consolidated entity's credit profile. In this regard, credit ratings are not based on the regulated business only, but on the qualitative and quantitative fundamentals of the consolidated entity. Standard & Poor's considers the ratings of the

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regulated businesses as being less vulnerable to the negative credit influence of other affiliates and holding company activities, as relevant, where very strong structural and/or regulatory insulation exists, which tends to be more the exception than the rule.

Critical success factors include:

- Commitment to credit quality,
- Credibility,
- Strong corporate governance, and
- Conservative financial policies, especially regarding nonregulated activities, if relevant.

Effect On Ratings

In summary, Standard & Poor's examines the key business risk drivers for vertically integrated utilities--regulation, markets, operations, competitiveness, and management--in conjunction with financial measures when assigning credit ratings. The credit quality of most vertically integrated utilities is solidly investment grade. This is a primarily a function of the existence of regulation. As discussed above, the factors that further differentiate ratings among this sector include their markets, operational track record, competitive posture, and management's risk appetite. Vertically integrated utilities generally have satisfactory business risk profile scores, with only a few having strong or weak business positions.

Appendix

Table 1

Industry Benchmarks

Business Profile	AA		A		BBB		BB	
Adjusted FFO interest coverage (x)								
1	3.0	2.5	2.5	1.5	1.5	1.0	< 1.0	< 1.0
2	4.0	3.0	3.0	2.0	2.0	1.0	< 1.0	< 1.0
3	4.5	3.5	3.5	2.5	2.5	1.5	1.5	1.0
4	5.0	4.2	4.2	3.5	3.5	2.5	2.5	1.5
5	5.5	4.5	4.5	3.8	3.8	2.8	2.8	1.8
6	6.0	5.2	5.2	4.2	4.2	3.0	3.0	2.0
7	8.0	6.5	6.5	4.5	4.5	3.2	3.2	2.2
8	10.0	7.5	7.5	5.5	5.5	3.5	3.5	2.5
9	N/A	N/A	10.0	7.0	7.0	4.0	4.0	2.8
10	N/A	N/A	11.0	8.0	8.0	5.0	5.0	3.0
Adjusted FFO/average total debt (%)								
1	20.0	15.0	15.0	10.0	10.0	5.0	< 5.0	< 5.0
2	25.0	20.0	20.0	12.0	12.0	8.0	< 8.0	< 8.0
3	30.0	25.0	25.0	15.0	15.0	10.0	10.0	5.0
4	35.0	28.0	28.0	20.0	20.0	12.0	12.0	8.0
5	40.0	30.0	30.0	22.0	22.0	15.0	15.0	10.0
6	45.0	35.0	35.0	28.0	28.0	18.0	18.0	12.0
7	55.0	45.0	45.0	30.0	30.0	20.0	20.0	15.0
8	70.0	55.0	55.0	40.0	40.0	25.0	25.0	15.0
9	N/A	N/A	65.0	45.0	45.0	30.0	30.0	20.0
10	N/A	N/A	70.0	55.0	55.0	40.0	40.0	25.0
Adjusted total debt/total capital (%)								
1	48.0	55.0	55.0	60.0	60.0	70.0	> 70.0	> 70.0
2	45.0	52.0	52.0	58.0	58.0	68.0	> 68.0	> 68.0
3	42.0	50.0	50.0	55.0	55.0	65.0	65.0	70.0
4	38.0	45.0	45.0	52.0	52.0	62.0	62.0	68.0

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5	35.0	42.0	42.0	50.0	50.0	60.0	60.0	65.0
6	32.0	40.0	40.0	48.0	48.0	58.0	58.0	62.0
7	30.0	38.0	38.0	45.0	45.0	55.0	55.0	60.0
8	25.0	35.0	35.0	42.0	42.0	52.0	52.0	58.0
9	N/A	N/A	32.0	40.0	40.0	50.0	50.0	55.0
10	N/A	N/A	25.0	35.0	35.0	48.0	48.0	52.0

Note: Business profile scores are characterized from '1' (excellent) to '10' (weak). FFO--Funds from operations. N/A--Not applicable.

Table 2

Vertically Integrated Utilities

Company	Corporate credit rating	Business profile score
Aquila Inc.	B/CW-Pos/B-2	6
AGL Resources Inc.	A-/Negative/A-2	4
Alabama Power Co.	A/Stable/A-1	4
ALLETE Inc.	BBB+/Stable/A-2	5
Ameren Corp.	BBB+/CW-Neg/A-2	6
Appalachian Power Co.	BBB/Stable/--	5
Arizona Public Service Co.	BBB-/Stable/A-3	6
Atmos Energy Corp.	BBB/Stable/A-2	4
Black Hills Power Inc.	BBB-/Negative/--	6
Central Illinois Light Co.	BBB+/CW-Neg/--	7
Central Vermont Public Service Corp.	BB+/Stable/--	6
CILCORP Inc.	BBB+/CW-Neg/--	7
Cincinnati Gas & Electric Co.	BBB/Positive/A-2	6
Cleco Power LLC	BBB/Negative/--	6
Cleveland Electric Illuminating Co.	BBB/Stable/--	6
Consolidated Natural Gas Co.	BBB/Stable/A-2	6
Consumers Energy Co.	BB/Stable/--	6
Dayton Power & Light Co.	BB+/Positive/--	5
Detroit Edison Co.	BBB/Stable/A-2	6
Duke Power Co. LLC	BBB/Positive/A-2	4
El Paso Electric Co.	BBB/Stable/--	6
Empire District Electric Co.	BBB-/Stable/A-3	6
Energy East Corp.	BBB+/Negative/A-2	3
Enogex Inc.	BBB+/Stable/--	7
Entergy Arkansas Inc.	BBB/Negative/--	5
Entergy Gulf States Inc.	BBB/Negative/--	6
Entergy Louisiana LLC	BBB/Negative/--	5
Entergy Mississippi Inc.	BBB/Negative/--	6
Entergy New Orleans Inc.	D/--/--	8
Equitable Resources Inc.	A-/CW-Neg/A-2	8
Florida Power & Light Co.	A/CW-Neg/A-1	4
Georgia Power Co.	A/Stable/A-1	4
Green Mountain Power Corp.	BBB/CW-Pos/--	5
Gulf Power Co.	A/Stable/--	4
Hawaiian Electric Co. Inc.	BBB+/Negative/A-2	5
IDACORP Inc.	BBB+/Negative/A-2	5
Idaho Power Co.	BBB+/Negative/A-2	5
Indiana Michigan Power Co.	BBB/Stable/--	6
Indianapolis Power & Light Co.	BB+/Positive/--	4
Interstate Power & Light Co.	BBB+/Stable/A-2	5
IPALCO Enterprises Inc.	BB+/Positive/--	4

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Kansas City Power & Light Co.	BBB/Stable/A-2	6
Kansas Gas & Electric Co.	BB+/Positive/--	6
Kentucky Power Co.	BBB/Stable/--	5
Kentucky Utilities Co.	BBB+/Stable/A-2	5
Louisville Gas & Electric Co.	BBB+/Stable/--	5
Madison Gas & Electric Co.	AA-/Stable/A-1+	4
Michigan Consolidated Gas Co.	BBB/Stable/A-2	4
MidAmerican Energy Co.	A-/Stable/A-1	5
Mississippi Power Co.	A/Stable/A-1	4
Monongahela Power Co.	BB+/Positive/--	5
Montana-Dakota Utilities Co.	BBB+/Stable/--	6
National Fuel Gas Co.	BBB+/Stable/A-2	7
Nevada Power Co.	B+/Positive/--	6
New York State Electric & Gas Corp.	BBB+/Negative/A-2	3
NiSource	BBB/Stable/--	4
Northern Indiana Public Service Co.	BBB/Stable/--	5
Northern States Power Co.	BBB/Stable/A-2	5
Northern States Power Wisconsin	BBB+/Stable/--	4
Ohio Edison Co.	BBB/Stable/A-2	6
Oklahoma Gas & Electric Co.	BBB+/Stable/A-2	5
Pacific Gas & Electric Co.	BBB/Stable/A-2	5
PacifiCorp	A-/Stable/A-1	5
Pennsylvania Power Co.	BBB/Stable/--	6
Pinnacle West Capital Corp.	BBB-/Stable/A-3	6
PNM Resources Inc.	BBB/Negative/A-3	6
Portland General Electric Co.	BBB+/Negative/A-2	5
Progress Energy Carolinas Inc.	BBB/PositiveA-2	5
Progress Energy Florida Inc.	BBB/Positive/A-2	4
PSI Energy Inc.	BBB/Positive/A-2	4
Public Service Co. of Colorado	BBB/Stable/A-2	4
Public Service Co. of New Hampshire	BBB/Stable/--	5
Public Service Co. of New Mexico	BBB/Negative/A-3	6
Public Service Co. of Oklahoma	BBB/Stable/--	5
Puget Energy Inc.	BBB-/Stable/--	4
Puget Sound Energy Inc.	BBB-/Stable/A-3	4
Questar Market Resources Inc.	BBB+/Stable/---	8
Rochester Gas & Electric Corp.	BBB+/Negative/--	3
San Diego Gas & Electric Co.	A/Stable/A-1	5
Savannah Electric & Power Co.	A/Stable/--	4
SCANA Corp.	A-/Stable/--	4
Sierra Pacific Power Co.	B+/Positive/--	6
Sierra Pacific Resources	B+/Positive/B-2	6
South Carolina Electric & Gas Co.	A-/Stable/A-2	4
Southern California Edison Co.	BBB+/Stable/A-2	6
Southern Co.	A/Stable/A-1	4
Southern Indiana Gas & Electric Co.	A-/Stable/--	4
Southwestern Electric Power Co.	BBB/Stable/--	5
Southwestern Public Service Co.	BBB/Stable/A-2	5
System Energy Resources Inc.	BBB-/Negative/--	7
Tampa Electric Co.	BBB-/Stable/A-3	4
Toledo Edison Co.	BBB/Stable/--	6
Tucson Electric Power Co.	BB/Stable/B-2	6

DEB_1RJ

TXU U.S. Holdings Co.	BBB-/Negative/--	8
Union Electric Co.	BBB+/CW-Neg/A-2	5
Union Light Heat & Power Co.	BBB/Positive/--	5
Vectren Utility Holdings Inc.	A-/Stable/A-2	3
Virginia Electric & Power Co.	BBB/Stable/A-2	5
Westar Energy Inc.	BB+/Positive/--	5
Wisconsin Electric Power Co.	A-/Negative/A-2	4
Wisconsin Energy Corp.	BBB+/Negative/A-2	5
Wisconsin Power & Light Co.	A-/Stable/A-2	4
Wisconsin Public Service Corp.	A+/CW-Neg/A-1	4
Xcel Energy Inc.	BBB/Stable/A-2	5

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CREDIT SUISSE

Equity Research United States

COMPANY UPDATE

Pinnacle West Capital Corp.

PNW

A Case for Cash

Friday afternoon Pinnacle West filed its rebuttal testimony in the ongoing rate case for Arizona Public Service (APS). PNW updated its revenue increase request to $451 MM from $458 MM. PNW increased the fuel cost request to $332 MM (15.6% of increase) from $301 MM (14% of original increase).

Not surprisingly, the testimony spent considerable time and effort addressing the cash recovery elements denied / excluded by the Staff and RUCO testimony. We believe that APS did an effective job highlighting potential credit impact that would come if unable to recover prudently incurred cash expenditures.

We remain confident that the ACC will ultimately be constructive when it comes to protecting PNW's financial health. As seen this spring with the emergency fuel cost proceedings and in our recent conversations with Chairman Hatch-Miller, the ACC understands the importance of APS's financial health and the negative ramifications for customers if such health is not maintained. To that end, **PNW estimated a cost to customers of $1 bn over 10 years if credit ratings were lowered to sub-investment grade** – an observation that should not be lost on the ACC.

While not included in the rate request, **PNW also introduced for ACC consideration two rate making changes that would further support the utility's financial health and ideally allow APS to earn its allowed ROE – attrition cost adjustments** (think of as a cost of living adjustment) **and CWIP** (cash recovery on capex rather than cash deferred AFUDC accounting). **We believe both adjustments are warranted and would be beneficial to APS's financial health** (would lower the cost of capital) by lessening chronic under-earning given the high rate of growth at APS and the meaningful regulatory lag associated with Arizona's lengthy 18-24 month rate case cycles. **Adoption of these changes would mark a constructive evolution of Arizona regulatory policy, demonstrating a willingness to provide support for APS's efforts in meeting AZ's robust population growth.**

The next step in the regulatory process will be surrebutal testimony due on September 27th. Maintain Outperform with a $48 target price.

Pinnacle West is a leading integrated electric service provider in the Western U.S.

research team

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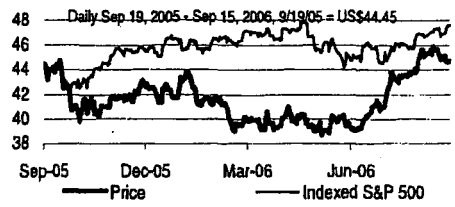
Rating	OUTPERFORM*
Price (15 Sep 06)	44.73 (US$)
Target price (12 months)	48.00 (US$)
52 week high - low	45.94 - 38.70
Market cap. (US$ m)	4,456.9
Enterprise value (US$ m)	7,516.6
Region / Country	Americas / United States
Sector	Electric Utilities
Analyst's Coverage Universe	Utilities
Weighting (vs. broad market)	UNDERWEIGHT
Date	18 September 2006

** Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.*

Price / Indexed S&P 500



On 09/15/06 the S&P 500 Index closed at 1,319.87

Year	12/05A	12/06E	12/07E
EPS (CS adj., US$)	3.32	3.07	3.00
Prev. EPS (US$)			
P/E (x)	13.5	14.6	14.9
P/E rel. (%)	81.1	100.0	113.1
Q1 EPS	0.27	0.12	
Q2	0.89	1.01	
Q3	1.89	1.59	
Q4	0.24	0.35	

Number of shares (m)	100	IC (12/06E, US$ m)	—
BV/share (current, US$)	32.97	EV/IC (x)	—
Net debt (current, US$ m)	3,059.7	Dividend (current, US$)	2.00
Net debt/total cap. (current)	48.2%	Dividend yield	4.5%

Year	12/05A	12/06E	12/07E
Revenue (US$ m)	3,022.7	—	—
EBITDA (US$ m)	962.5	987.4	1,012.2
OCFPS (US$)	7.56	8.16	9.22
P/OCF (x)	5.5	5.5	4.9
EV/EBITDA (x)	7.6	7.5	7.4
Net debt (12/05A, US$ m)	2,855.1	2,915.8	3,035.6
ROIC	9.4%	8.5%	8.5%

Source: Company data, Credit Suisse estimates

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Peter M. Ewen

REJOINDER TESTIMONY OF PETER M. EWEN

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
Docket No. E-01345A-05-0827

October 4, 2006

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FUEL AND PURCHASE POWER KEY FACTORS ..... Attachment PME-1RJ

REJOINDER TESTIMONY OF PETER M. EWEN
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is Peter M. Ewen. My business address is 400 North Fifth Street, Phoenix, Arizona, 85004. I am Manager of the Revenue and Fuel Analysis and Forecasts Department for Arizona Public Service Company ("APS" or "Company"). In that role, I am responsible for preparing the Company's short-range and long-range forecasts of system peak demand and energy sales, and projecting the optimal dispatch of available resources to minimize the cost of meeting those energy requirements.

Q. DID YOU PREVIOUSLY FILE DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. I respond to the Surrebuttal Testimony of three Staff witnesses: Mr. John Antonuk regarding base fuel costs; Mr. Jerry Anderson regarding demand side management ("DSM") net lost revenues; and Mr. James Dittmer regarding Sundance Operations & Maintenance ("O&M") expenses.

Q. DOES YOUR SILENCE REGARDING ANY OF THE ISSUES DISCUSSED BY OTHER PARTIES INDICATE AN ACCEPTANCE OF THOSE POSITIONS?

A. No, it does not. An absence on my part of a response to a surrebuttal issue should not be taken as acceptance of any party's testimony; instead it is an indication that I maintain my position, as discussed in previous testimony.

II. SUMMARY OF REJOINDER TESTIMONY

Q. WOULD YOU PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY?

A. Yes. At Staff's suggestion, I have recomputed the base fuel expense for 2007 using closing forward prices for natural gas and purchased power from September 29, 2006 for calendar 2007 delivery. Those prices yield a base fuel cost of 3.2491¢/kWh and a revenue requirement over the Company's current rates of $314.4 million. This revenue requirement is lower than the one filed in my Rebuttal Testimony by $16.6 million, but is some $120.8 million greater than the level recommended by Staff witness Antonuk. It is imperative that the Commission set the Company's rates at a level that is sufficient to recover these expenses. In the alternative, if the Commission chooses to adopt both the Staff-recommended base fuel rate and Staff's recommended modifications to the Power Supply Adjustment ("PSA") mechanism, then it is imperative that the prospective adjustor for 2007 be set at 0.4516¢/kWh in order to limit the amount of under-recovery of fuel expenses that may occur in 2007. This under-recovery is likely even if the 3.2491¢/kWh level is adopted by the Commission for the simple reason that new rates are not likely to take effect until several months into the year 2007, and the Company needs the revenue collected in the spring and fall months of each year to even out the shortfall that inevitably occurs in the summer months of each year. Without the chance of starting the year 2007 at the correct level, it is most likely that the recovery of fuel expenses, through either base rates or a combination of base rates and a prospectively-set adjustor, will fall short of the Company's actual 2007 fuel expenses.

In response to Staff witness Anderson's assertions related to DSM-related reduced revenue, I have re-estimated the amount of net lost revenues associated with the Company's DSM program achievements to be $6.9 million. In an attempt to deal with Staff's assertion that revenue reductions attributable to DSM measures are not known

and measurable, this revised estimate takes into account only the energy reductions associated with the amounts already spent and planned to be spent in the remainder of this year, as addressed by Ms. Teresa Orlick in her Rejoinder Testimony regarding the DSM spending plan. The Settlement Agreement that led to Decision No. 67744 provides for the recovery of DSM-associated net lost revenues in the Company's rate cases, and the Company is merely seeking to be kept whole for the energy reductions that have already been or are about to be achieved.

Finally, I provide a more quantitative illustration of the problem posed by Staff witness Dittmer's recommendation to disallow the Sundance O&M overhaul expense pro forma adjustment. Mr. Dittmer's recommendation precludes the Company from recovering its full overhaul costs until several years in the future, if at all. Under Staff's approach, customers in the future will be required to pay for overhaul expenses that are being incurred based on the usage of Sundance today.

III. REJOINDER TO STAFF WITNESS ANTONUK

Q. HAVE YOU REVIEWED THE SURREBUTTAL TESTIMONY OF STAFF WITNESS ANTONUK REGARDING THE COMPANY'S PROPOSED BASE FUEL RATE?

A. Yes, I have. As I understand his testimony, Mr. Antonuk has two principal objections. One objection is that the base fuel rate should not be set on the basis of estimated 2007 fuel expenses, but rather, that those cost estimates should be addressed by utilizing a prospectively-set adjustor with the Company's PSA mechanism. The second objection relates to his belief that the 2007 fuel expense estimates provided by APS in late July, which relied on June 30, 2006 forward prices for natural gas and wholesale power, are simply too far removed from the actual delivery period to rely on. While I do not fully agree with Mr. Antonuk's conclusions, I will endeavor to accommodate them here.

Q. HOW DO YOU RESPOND TO MR. ANTONUK'S OBJECTION CONCERNING THE APPLICABILITY OF THE COMPANY'S 2007 FUEL EXPENSE ESTIMATES BASED ON JUNE 30, 2006 FORWARD PRICES FOR NATURAL GAS AND WHOLESALE POWER?

A. As suggested by Mr. Antonuk, I have prepared revised estimates of 2007 fuel expenses that rely on September 29, 2006 forward prices for natural gas and wholesale power. It is my hope that Mr. Antonuk is correct when he states:

> We believe that there is sufficient time to set a new PSA adjustor, provided that the Company files complete estimates soon (its next testimony filing in this proceeding presents such an opportunity), so that the parties can begin their examination. (Surrebuttal Testimony of John Antonuk, p. 11, lines 18-20.)

To that end, I have attached a summary of Fuel and Purchase Power Key Factors as PME-1-RJ. I have also provided a complete set of work papers to the parties, concurrent with this testimony, which I believe will facilitate the examination by the parties.

Q. WHAT DO YOUR REVISED ESTIMATES SHOW?

A. The Company's revised proposed base fuel rate is 3.2491¢/kWh, which results in a revenue requirement that is $314.4 million higher than the Company's current base fuel rate.

Q. HOW IS THIS REVISED BASE FUEL RATE ESTIMATED DIFFERENTLY FROM PREVIOUS ESTIMATES YOU HAVE PROVIDED IN THIS CASE?

A. There are relatively few differences from previous estimates, a fact which I believe will enable the parties to complete their examination of these estimates more quickly. First, as I have already mentioned, forward prices for natural gas and wholesale power have been updated to their closing values as of September 29, 2006. On this basis, the Company's delivered gas price (time-weighted for calendar year 2007, not volume-weighted) averages $7.37/MMBtu and the similar average for Palo Verde on-peak power is $65.69/MWh. Second, I have updated the amount and value of the Company's natural

gas and power hedge contracts to reflect the positions in place at September 29, 2006. Third, I am using the precise start and end dates for changes in the Company's power contracts that are to occur in 2007. In previous estimates, I had annualized such changes so that the average fuel cost could be reflective of such changes beyond just the initial year. Fourth, and along the same lines as the previous adjustment, I have used the Company's energy sales estimate for 2007 without the annualization of year-end customer levels. Fifth, I am using the Company's actual planned outage schedule for 2007, rather than the normalized schedule I had used previously. These latter changes are consistent with Staff's desire to have costs be reflective of actual conditions. (*See*, Antonuk Direct Testimony, page 5.) All other estimates of fuel prices, plant capacities and operating characteristics, and unplanned outage rates are very similar, if not identical, to those I have used in previous estimates.

Q. HAVE ANY OF THE BASE FUEL ESTIMATES YOU HAVE PROVIDED IN THIS CASE INCLUDED NON-UTILITY REVENUES AND/OR EXPENSES?

A. No. None of the base fuel cost estimates or revenue requirements to which I have testified previously have been affected by the inclusion of such amounts. Although it is correct that the Company mistakenly included certain non-utility revenues and expenses in its direct case (which were removed in rebuttal), Mr. Antonuk is mistaken when he asserts that our base fuel estimates had an error stemming from "the inclusion of non-utility revenues and expenses in the normalized APS fuel and energy 2006 data that Mr. Ewen used in his direct testimony to support APS's rate request." (Surrebuttal Testimony of John Antonuk, p. 2, lines 16-19.) These amounts were never included in my calculation of the base fuel cost for 2006 or 2007 and never affected the revenue requirements associated with fuel expenses to which I testified.

Q. DOES MR. ANTONUK CORRECTLY CONCLUDE THAT THE COMPANY'S FUEL COST ESTIMATES ARE NOT RELIABLE?

A. No, Mr. Antonuk's conclusion relies on a high-level comparison of the various estimates provided in this case without providing any real context for why those changes were seen. For example, at one point Mr. Antonuk explains:

> Look for example at what APS thought 2007 costs were going to be in February 2006. That estimation differs by more than $100 million from what the APS estimate as of June 30, 2006 showed them to be. (Surrebuttal Testimony of John Antonuk, p. 14, lines 14-16.)

Earlier in his testimony, he highlights volatility in fuel prices:

> There have been further significant market changes since last February . . . . The fluid energy markets of 2006 well demonstrate that there may be substantial changes in 2007 costs from those that the Company proposes to use. (Surrebuttal Testimony of John Antonuk, p. 7, lines 13-16.)

Both of these observations apparently lead him to conclude:

> The volatility in fuel and energy markets makes reliance on a mid-2006 estimate as troubling as reliance on the normalized 2006 data that witness Ewen addressed in his direct testimony. (Surrebuttal Testimony of John Antonuk, p. 4, lines 13-15.)

Q. PLEASE EXPLAIN WHY YOU DO NOT AGREE WITH THIS CONCLUSION.

A. There are two principal reasons that I disagree with Mr. Antonuk. First, his analysis of changes in 2007 costs is not correct. As far as I can tell, he has compared the gross levels of a February 2006-vintage forecast of 2007 fuel expenses to the gross levels of a June 2006-vintage normalized estimate of 2007 fuel expenses, without adjusting for sales volume differences across the two estimates. While this may seem like a subtle point, it actually turns out that the *average* fuel cost between the two estimates – which is the single most important result for rate-making purposes to be derived from these estimates – differs by less than 0.1¢/kWh. The revenue requirement associated with this difference is just over $20 million, far less than the "more than $100 million" claimed by

Mr. Antonuk. The sales volume differences are entirely attributable to the customer annualization adjustment that is performed for rate-making purposes in the normalized fuel estimate; this adjustment is not made in the "forecast" estimate.

The second reason is the lack of context provided around his characterization of the change in 2006 costs. At page 7 of his Surrebuttal Testimony, Mr. Antonuk comments on the $86.5 million decline in expected 2006 fuel costs between November 2005 and February 2006 and uses that change to argue that market changes could significantly change the Company's expected 2007 costs. Whether he meant to or not, I believe he leaves the impression that the Company's fuel estimates routinely "bounce around" by tens of millions of dollars and are therefore unreliable. If this is truly his conclusion, I would argue that it really overstates the case and ignores the extraordinary circumstances that led to the lower estimates in February 2006.

While it is true that the Company's fuel-related revenue requirement declined significantly between the time it filed its direct case in January 2006 (using November 30, 2005 forward prices) and the time the Company filed its rebuttal testimony in the Emergency Case in March 2006 (using February 28, 2006 forward prices), the dramatic nature of the change in natural gas and wholesale power prices was the entire story behind the change. During this time period, natural gas prices declined by over $4/MMBtu – *a drop of almost 40%.* The magnitude of this change is one of the most severe experienced by the natural gas market (perhaps rivaled only by the hurricane-induced jump in August through October 2005). What is shocking about the change in fuel costs cited by Mr. Antonuk is not that they changed by as much as $86.5 million, but that they changed by <u>only</u> $86.5 million.

In summary, the Company's fuel estimates for 2007 have been relatively stable and have

varied by generally less than 0.1¢/kWh since the beginning of the year. Estimates for 2006 have varied more than this, but principally due to one of the most severe changes in the natural gas market ever seen. Notably, even when the estimates for 2006 were changing in relatively dramatic fashion, the estimates for 2007 remained relatively stable.

Q. ARE YOU SUGGESTING THAT 2007 FUEL COSTS ARE VIRTUALLY CERTAIN?

A. No. What I am suggesting is that, in the absence of another dramatic change in natural gas prices like those seen in late 2005 and early 2006 (or an equivalent change to some such other important factor), the Company's 2007 fuel costs are fairly well-known, given the significant degree to which its fuel needs are hedged for 2007. I believe this is reflected in the fact that the 2007 estimates have moved only modestly over this previous year. Furthermore, if a dramatic change in the natural gas market were to occur in 2007, it is my opinion that prices are more likely to experience a $4 upward move than a downward move. Based on this, I believe the Commission can set the Company's base fuel rate at 3.2491¢/kWh with confidence that the Company's actual fuel costs will correspond closely to that level.

Q. HAS STAFF'S SURREBUTTAL TESTIMONY ALTERED YOUR VIEW OF HOW THE PSA MECHANISM MUST OPERATE?

A. No. I did not read Mr. Antonuk's Surrebuttal Testimony to indicate significant disagreement with the Company's elaboration on how Staff's proposed PSA structure could be implemented. I do understand that Mr. Antonuk disagrees with the Company's conclusions regarding the initial value of the 2007 prospective adjustor and hope that the estimates I have provided in my Rejoinder Testimony are more satisfactory in that regard. Specifically, though, I reiterate that the safest course of action for the Commission to take with respect to the PSA is to adopt the Company's proposed base

fuel rate that I have presented here and the modifications to the PSA proposed by Mr. Robinson, which have been more generally accepted by other parties.

If the Commission chooses to adopt the Staff proposal, without having seen a detailed Plan of Administration, I can only reiterate that the structure should reflect the following provisions in order to help it work most effectively:

1. The prospective adjustor should reflect the level of base fuel costs I have described above;

2. The adjustment mechanism must be able to deal with unrecovered historical costs, particularly those from 2006;

3. The effective dates and terms (i.e., length of time) for annual adjustor rate changes should be established in advance;

4. There should be a well-defined process for filing, reviewing and approving the prospective and historic adjustors in future years; and

5. The fuel cost deviations to which any remaining sharing mechanism between the Company and customers is applied should be well-defined. (Presently, we do not know how to interpret Mr. Antonuk's description at page 14 of his Surrebuttal Testimony regarding costs that would be subject to sharing.)

IV. REJOINDER TO STAFF WITNESS ANDERSON

Q. WHAT IS YOUR RESPONSE TO STAFF'S RECOMMENDATION THAT THE COMPANY'S PROPOSED PROFORMA ADJUSTMENT FOR REVENUE REDUCTIONS ATTRIBUTED TO DSM MEASURES SHOULD BE DISALLOWED BECAUSE THEY ARE NOT KNOWN AND MEASUREABLE?

A. I have updated the estimate of net lost revenues associated with the Company's DSM programs to reflect the actual spending to date and the amounts planned to be spent in the 4th quarter of this year. It is my belief that these adjustments should satisfy Staff's

concerns because they are relying on known program expenditures, and these expenditures have resulted in the implementation of quantifiable energy-saving measures. Ms. Orlick addresses the total amount of DSM expenditures to date, as well as the planned DSM spending through the end of 2006. She also addresses how these DSM expenditures convert into energy savings.

Q. PLEASE QUANTIFY THE DSM ENERGY SAVINGS.

A. As Ms. Orlick addresses in her Rejoinder Testimony, the cumulative DSM expenditures for 2005-2006 are planned to be $12.6 million, which yield an annual energy reduction of 127,000 MWh. The Company's original proposal had relied on an annual spending level of $10 million and a corresponding energy reduction of 94,000 MWh. The change reflects a slower than expected approval and implementation of the Company's DSM programs, but a full year of additional savings and energy reductions.

Q. WHAT IS THE IMPACT OF THESE ENERGY SAVINGS ON THE COMPANY'S REVENUE REQUIREMENT?

A. These energy savings result in $6.9 million of lower revenues (net of avoided fuel expenses) that are not reflected in energy sales in the Test Year ending September 30, 2005. This amount exceeds the $4.9 million that the Company is requesting in its revenue requirement through the pro forma adjustment filed in January 2006. For purposes of setting rates on a going forward basis, and in concert with the language in the Settlement Agreement adopted in Decision No. 67744, it is most appropriate that the Commission provide for recovery of these known and measurable impacts to our revenues.

V. <u>REJOINDER TO STAFF WITNESS DITTMER</u>

Q. MR. DITTMER HAS TAKEN THE POSITION THAT A PORTION OF THE PROJECTED MAINTENANCE COSTS FOR THE SUNDANCE UNITS

SHOULD BE DISALLOWED. HOW DO YOU RESPOND?

A. I disagree with Staff's position. The method traditionally followed by the Commission in setting rates for such items is to average the expenses over generating plant overhaul cycles so that "lumpy" payments in one year do not lead to an overstatement of the Company's rates. Since the Sundance major overhaul cycle is twelve years, the Company has requested essentially that one-twelfth of its expenses be recovered in each year.

For example, if the Company were to conduct all of the first round of major overhaul work for the Sundance units in one year, it would require rates to recover $24 million in that year (in non-escalated 2005 dollars). In practice, the Company will likely spread this overhaul work for all ten units over five years, incurring an annual cost of $4.8 million each year (again in 2005 dollars). Importantly, the need to carry out this overhaul work is determined, in part, by the use of the Sundance units in 2005 and 2006.

Under the Staff recommendation, the Company does not begin to recover these costs until some indeterminate time in the future. At that future time, if the Commission follows past practice and averages these overhaul costs over the length of the overhaul cycle, then the Company will permanently forego the opportunity to recover $2.75 million for each year these costs are not included in rates. On the other hand, if the Commission deviates from current practice at such future time and allows recovery of overhaul costs over a shorter period of time, the Company may be able to recover its costs, but customers in the future will be left to pay for costs attributable to customers in the present and in the recent past. Neither of these two scenarios seems appropriate.

Q. **MR. DITTMER HAS POSITED THE POSSIBILITY THAT SUNDANCE MAINTENANCE COSTS COULD BE DEFFERED UNTIL SUCH ACTIVITIES WERE ACTUALLY UNDERTAKEN. WHAT IS YOUR RESPONSE TO THIS APPROACH?**

A. At the very least, the Company should be provided the ability to defer such costs for recovery until a future rate case, as Staff has suggested. While this approach is better than no recovery at all, it appears to be sub-optimal to the Company's proposed approach because future customers will be required to pay not only for the on-going overhaul costs of the Sundance plant, but also for any costs incurred in these early years because there was no recovery for a pro-rata share of the overhaul costs during those years.

VI. CONCLUSION

Q. DO YOU HAVE ANY CONCLUDING COMMENTS?

A. To assure that the Company's financial stability will remain intact, recovery of the appropriate level of fuel expenses is imperative. This means that it is both necessary and proper to account for known and measurable changes in setting base fuel rates. For that reason, the Company urges the adoption of the recomputation of base fuel expense for 2007 of 3.2491¢/kWh. In the alternative, if the Commission adopts both the Staff-recommended base fuel rate and Staff's recommended modifications to the PSA, the prospective adjustor for 2007 must be set at 0.4516¢/kWh to limit the amount of under-recovery of fuel expenses that may occur in 2007. Additionally, the future rates for the Company should acknowledge the revenue loss related to the actual achievements of the Company's DSM programs through the end of this year, as provided for by the Settlement Agreement and Decision No. 67744. The Company's rates should also allow for recovery of Sundance overhaul costs in a timely manner and in a manner that will not disadvantage customers in the future.

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY IN THIS PROCEEDING?

A. Yes.

ARIZONA PUBLIC SERVICE COMPANY
FUEL AND PURCHASED POWER
SUMMARY OF KEY FACTORS

			2006 Prices & Loads			2007 Prices & Loads	
	Current Base Rate Level	Actual Test Year	APS Original Filing	APS Emergency Rebuttal Testimony	Staff Testimony Actual + Forecast	APS Rebuttal Testimony	APS Rejoinder Testimony
Forward Market Vintage	N/A	N/A	11/30/2005	2/28/2006	6/30/2006	6/30/2006	9/30/2006
Base Fuel Rate (¢/kwh)	2.0743	2.7010	3.1904	2.9419	2.7975	3.3112	3.2491
Revenue Requirement Increase (millions of $)	N/A	167.7	298.7	232.2	193.5	331.0	314.4
Gas Prices							
Delivered ($/mmbtu)	5.78	7.20	10.74	7.20	6.57	8.69	7.49
Hedge Value ($/mmbtu)	-	(1.68)	(2.48)	(0.36)	(0.13)	(0.93)	(0.21)
Effective Gas Price ($/mmbtu)	5.78	5.52	8.26	6.84	6.44	7.75	7.28
Power Prices							
Palo Verde On-Peak ($/MWh)	53.21	58.75	88.88	60.58	57.51	74.38	65.69
Gas and Purchased Power Share of Native Load Energy	22.4%	28.3%	28.6%	30.3%	30.5%	32.3%	31.3%

Donald G. Robinson

REJOINDER TESTIMONY OF DONALD G. ROBINSON

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
Docket No. E-01345A-05-0827

October 4, 2006

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REJOINDER TESTIMONY OF DONALD G. ROBINSON
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E-01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.

A. My name is Donald G. Robinson. I am Vice President of Planning for Arizona Public Service Company ("APS" or "Company"). I have responsibility for Corporate Planning, Resource Acquisition, Resource Planning, Budgets, Forecasts, Energy Risk Management and New Business Ventures. My business address is 400 North Fifth Street, Phoenix, Arizona 85004.

Q. DID YOU FILE DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER?

A. The purpose of my rejoinder is to comment on some of the PSA issues raised by the other parties in their surrebuttal testimony.

II. SUMMARY OF REJOINDER TESTIMONY

Q. WOULD YOU PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY?

A. My rejoinder testimony continues to maintain that the Company's PSA proposal, as modified in my Rebuttal Testimony, should be adopted and is supported in several of its key provisions by the parties filing testimony on the PSA. I also discuss certain structures that must be present if the Commission decides to adopt the Staff proposal. Finally, I re-emphasize the need to set the base fuel rate

at a level that will allow the Company to recover its 2007 fuel and purchased power costs on a timely basis.

III. CHANGES TO THE PSA

Q. HAVE YOU REVIEWED THE SURREBUTTAL TESTIMONY OF THE PARTIES CONCERNING CHANGES TO THE PSA?

A. Yes I have. Both RUCO and AECC have expressed issues with the proposed changes to the PSA suggested by Staff. RUCO has stated its opposition to the Staff approach and AECC indicates that they have "serious concerns". Staff's testimony clarifies certain elements of their proposal, although Staff has not yet presented a detailed Plan of Administration, which would hopefully allow the parties to have a complete understanding of Staff's PSA proposal.

Q. WHAT CHANGES TO THE PSA DOES THE COMPANY BELIEVE SHOULD BE ADOPTED?

A. I believe that it is most appropriate for the Commission to accept the Company's proposal with the modifications contained in my Rebuttal Testimony. Our proposal would improve the existing PSA, is easily implemented with only minor changes to the already-approved Plan of Administration and appears to have the complete support of RUCO[1] as well as significant support from other parties filing testimony.

Q. IF THE COMMISSION WERE TO ADOPT THE STAFF PROPOSAL, WHAT COMPONENTS WOULD NEED TO BE INCLUDED?

A. I think that the following components would be necessary to effectively implement the Staff proposal. First, the Commission must either set the base fuel

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[1] RUCO does have a different base fuel number than that proposed by APS, although the difference appears more one of timing than substantive disagreement on methodology.

rate and the prospective adjustor at the same time or, alternatively, adopt APS' level of base fuel costs and implement a prospective PSA adjustor in 2008. Second, there also needs to be a specific retrospective adjustor mechanism that deals with unrecovered historical costs from 2005 and 2006. Finally, there should be a well-defined process with dates for filing, reviewing and approving the prospective and retrospective adjustors in future years.

IV. BASE FUEL RATE

Q. STAFF HAS SUGGESTED SETTING THE PROSPECTIVE 2007 PRICE FOR FUEL AND PURCHASED POWER BASED ON A SEPTEMBER 30, 2006, FORECAST OF PRICES. DO YOU AGREE?

A. Yes. I believe the base fuel rate of 3.25¢/kwh contained in Mr. Ewen's rejoinder should be used. This is the most recent period available and should provide the Company the best chance of recovering its costs in a timely manner.

Setting the base fuel rate too low in the Company's last rate case led to the massive deferrals which resulted in our emergency rate request and surcharge applications. Given the Company's tenuous financial position, I can see no reason why the Commission would not want to use the most recent information in setting the base fuel rate.

Q. DOES THAT CONCLUDE YOUR REJOINDER?

A. Yes.

William E. Avera

REJOINDER TESTIMONY OF WILLIAM E. AVERA

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
Docket No. E-01345A-05-0827

October 4, 2006

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REJOINDER TESTIMONY OF WILLIAM E. AVERA
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is William E. Avera. My business address is 3907 Red River, Austin, Texas, 78751.

Q. ARE YOU THE SAME WILLIAM E. AVERA WHO PREVIOUSLY FILED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. My purpose here is to respond to the Surrebuttal Testimony of Mr. David C. Parcell and Mr. James R. Dittmer, on behalf of the Staff of the Arizona Corporation Commission ("ACC" or "the Commission"), and Mr. Stephen G. Hill, on behalf of the Residential Utility Consumer Office ("RUCO"), concerning a fair rate of return on equity ("ROE") for Arizona Public Service Company ("APS" or "the Company"). My Rejoinder Testimony does not respond to each and every argument presented by these witnesses concerning the more technical details underlying the analyses of an ROE for APS because this evidence is already contained in my Direct and Rebuttal testimonies. Rather, my Rejoinder testimony targets several key issues that must be considered to ensure that the allowed ROE for APS meets the economic tests required by established regulatory principles.

II. SUMMARY

Q. WOULD YOU PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY?

A. In response to the Rebuttal Testimony of Staff and RUCO, my Rejoinder Testimony emphasizes the necessity to ensure that the ROE for APS meets the end-result test required by regulatory policy, with the specific risks and challenges faced by APS justifying an ROE that exceeds the historical average for other utilities. Moreover, because the end-result test must consider the utility's actual ability to earn the allowed rate of return, it is imperative to consider the impact of attrition when establishing an ROE for APS. Finally, I concluded that my reference to the methods previously adopted by the Commission serves as a useful benchmark in evaluating the reasonableness of Staff's and RUCO's ROE recommendation in this case. The fact that Staff's recommended ROE for APS falls *below* what was approved by the ACC in August 2006 for a lower-risk water utility illustrates the fact that Mr. Parcell's recommendation is significantly downward-biased.

III. THE ROE FOR APS MUST RECOGNIZE FINANCIAL REALITIES

Q. DOES THE SURREBUTTAL TESTIMONY OF MR. PARCELL OR MR. HILL ADDRESS THE FUNDAMENTAL ISSUE IN THIS CASE?

A. No. Mr. Parcell and Mr. Hill focus almost exclusively on theoretical arguments surrounding the application of alternative approaches to estimate the cost of equity. These discussions debate detailed technical questions surrounding the growth rates used in the discounted cash flow ("DCF") model, for example, or the market risk premium necessary to apply the Capital Asset Pricing Model ("CAPM"), and even include a lengthy review of the findings from a single academic paper. Of course, experts on opposite sides of an issue are apt to have differing views on how best to apply accepted models to estimate the cost of equity, and my opinions on these details are fully articulated and supported in my Direct and Rebuttal testimony. But focusing on these more technical debates masks the salient issue; namely, "What is a fair ROE for APS, given its risks and the financial realities that the Company faces?" The answer to this

question is of more than theoretical interest. If the allowed ROE does not maintain the ability of APS to obtain capital on reasonable terms from real world investors, then the real world customers of APS will suffer the consequences.

Q. DO YOU AGREE WITH MR. PARCELL'S ARGUMENT THAT AUTHORIZED RETURNS DON'T SUPPORT YOUR RECOMMENDED ROE?

A. No. In his Surrebuttal Testimony, Mr. Parcell cited the 10.69% and 10.57% average authorized returns for electric utilities in 2006 that I referenced on Rebuttal, claiming that this data does not support a higher return for APS.[1] First, I made reference to these benchmarks in order to illustrate that Mr. Parcell's 10.25% ROE is significantly downward-biased, while Mr. Hill's 9.25% recommendation is far beyond the realm of reasonableness. Second, as developed in my Direct and Rebuttal Testimony, when considered along with the financial realities faced by APS, the upward trend in bond yields during 2006, and the current capital market requirements reflected in my analyses, these benchmarks are entirely consistent with my recommended ROE.

In fact, there are several key distinctions between APS and other electric utilities that justify supportive regulatory treatment, including the Company's requested ROE. As explained in my prior testimony in this case, and as documented in the testimony of other Company witnesses, APS is facing severe financial pressures because of its inability to recover the costs of providing service, including a fair ROE, on a timely basis. As a result, Standard & Poor's ("S&P") and Fitch Ratings, Ltd. ("Fitch") have assigned APS the lowest rating on the investment grade scale and all of the major bond rating agencies, including Moody's Investors Service ("Moody's") have noted that the Company's financial metrics are under pressure. Moody's has assigned a "negative" outlook to APS, indicating the potential for future downgrades, and both S&P and Fitch

[1] Parcell Surrebuttal at 2.

have explicitly noted the need for supportive regulatory treatment in order to bolster the Company's finances and maintain current ratings.

An outcome in this case that deviates significantly from investors' expectations and requirements has the very real danger of pushing APS' credit ratings over the precipice and into speculative, or "junk" bond territory. Junk bond ratings imply an altogether different level of investment risks and would constitute a significant erosion of APS' ability to raise capital on reasonable terms, with the ultimate result being higher costs to customers.

Q. WHAT OTHER FACTORS MAKE IT IMPERATIVE THAT APS BE ALLOWED AN ROE THAT EXCEEDS THE AVERAGE FOR OTHER ELETRIC UTILITIES?

A. Aside from the need to maintain or enhance credit ratings, APS faces the challenges of a swiftly growing service territory that requires the commitment of significant new investment in order to meet customers' demands. As a result, at the very same time that the Company is confronting the impact of inadequate rates and an inability to earn investors' required return, it also must raise significant capital to meet its service obligations. Setting an ROE that fails to provide investors with returns commensurate with other utilities would send the wrong signal at a time when access to capital is crucial for the Company and its customers.

Apart from the capital requirements of its growing service area, S&P, Moody's, and Fitch have also recognized other inherent risks that must be considered in establishing APS' ROE relative to other utilities. For example, Fitch has noted the risks associated with "high and volatile variable costs," which are only compounded by a relatively limited Power Supply Adjustor. In addition, APS must contend with the impact of attrition, which pervasively erodes the Company's ability to earn returns commensurate

with those of other firms that are competing for investors' capital. Taken together, and in tandem with my analyses of investors' current requirements, these considerations all support an ROE for APS that is above the average for electric utilities as a whole.

IV. IMPACT OF ATTRITION IS PROPERLY CONSIDERED

Q. DO STAFF OR RUCO DENY THAT ATTRITION PREVENTS APS FROM HAVING A REALISTIC OPPORTUNITY TO EARN ITS AUTHORIZED RETURN?

A. No. No party to this case seeks to argue that APS is not impacted by attrition. In fact, Mr. Parcell granted that he also "cited this State's regulatory environment in my direct testimony" and noted that Staff had recommended an "enhanced" methodology to recover fuel and purchased power costs.[2] But as Mr. Hill noted, there is more to attrition than power cost recovery. Mr. Hill explained the disconnect between a utility's revenues and costs that occurs during a cycle of construction and capital additions and concluded that:

> … I believe it is reasonable to investigate and perhaps adjust certain aspects of the manner in which rates are set during a time of substantial capital additions.[3]

Further, Mr. Hill readily granted that "administrative aspects of the ratemaking process" (*i.e.* regulatory lag) could cause APS to under-recover its allowed return.

Q. WHAT BASIS DID STAFF AND RUCO PROVIDE FOR IGNORING THE IMPACT OF ATTRITION?

A. Staff and RUCO's chief argument against considering the impact of attrition when setting an ROE for APS is that the Company did not propose such an adjustment in its direct case. While granting that construction and regulatory lag can prevent a utility

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[2] Parcell Surrebuttal at 4. Mr. Parcell's Direct Testimony at pp. 14-15 documented the investment community's perception that APS' power supply adjustor is "weak" and leaves the Company exposed to cash flow volatility.

[3] Hill Surrebuttal at 6.

from earning its allowed return, Mr. Hill opined that an argument supporting an attrition adjustment "constitutes additional direct testimony."[4] Similarly, Mr. Dittmer bemoaned "a lack of forewarning in the Company's direct case" in explaining Staff's failure to consider the impact of their recommendations for APS on a forward-looking basis.[5] Mr. Parcell too expressed his disagreement at introducing a "new issue" at this stage of the proceeding.[6]

Q. IS ATTRITION A "NEW ISSUE"?

A. No. My Direct Testimony noted the impact of regulatory lag and cost recovery in assessing a fair ROE for APS,[7] and the impact of attrition, especially as it relates to power cost recovery, has been an ongoing issue at the ACC. Moreover, attrition and regulatory lag have been recognized by the investment community as significant concerns long before Staff and RUCO filed their Direct Testimony in this case. While Staff and RUCO are correct that an attrition adjustment was not included as part of APS' direct case, this is because the direct case was premised on my recommended ROE of 11.5% and the other features of the Company's request that were intended to restore investor confidence. In response to the significantly lower ROE recommendations of Staff and RUCO, and in light of the Commissions' expressions of concern about APS' credit standing, my rebuttal testimony proposed an attrition adjustment as a way to preserve the Company's financial integrity and meet the end-result test required by established regulatory principles if proposals by Staff and RUCO were adopted. There is nothing "new" about the regulatory requirement that a utility be granted an opportunity to actually earn its required rate of return, and my proposed attrition

[4] Hill Surrebuttal at 28.
[5] Dittmer Surrebuttal at 7.
[6] Parcell Surrebuttal at 2.
[7] See, *e.g.*, Avera Direct at 65-66.

adjustment simply responds to the inability of Staff and RUCO's recommendations to meet this fundamental requirement.

Q. WHAT ABOUT MR. HILL'S CLAIM THAT HE HAS ASSESSED THE ADEQUACY OF HIS RECOMMENDATIONS?

A. Mr. Hill states that his overall cost of capital, including his 9.25% ROE, will allow APS to improve its coverage ratio and he makes the incredible claim that his anemic return recommendation "affords the Company an opportunity to improve its financial position."[8] First, Mr. Hill's focus on a single financial metric – the pre-tax coverage ratio – says nothing about the overall question of the Company's financial integrity, as evidenced by the warnings of the major rating agencies that a lack of regulatory support in this case will undermine APS credit standing and could lead to lower ratings. More importantly, Mr. Hill's "test" is meaningless because it assumes that APS will actually earn its allowed return. As S&P noted, the investment community is focused on actual earnings, not the make-believe parameters underlying Mr. Hill's conclusions:

> Although a higher authorized return on equity (ROE) may theoretically improve a utility's cash flow, a company's ability to actually earn the authorized ROE is more important for overall creditworthiness. The ability to earn an authorized ROE depends on adjustments included in rate-case decisions, and other regulatory mechanisms such as fuel-adjustment clauses.[9]

As documented in Schedule F-1 of the Company's January 31, 2006 filing, this key assumption underlying Mr. Hill's so-called "test" is at odds with the realities faced by APS, and as the bond rating agencies have highlighted, investors are also well aware of the difficulties that attrition poses for the Company.

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[8] Hill Surrebutal at 3.

[9] Standard & Poor's Corporation, "How Returns On Equity Factor Into U.S. Utilities' Creditworthiness," *RatingsDirect* (June 14, 2005).

Regulatory policy holds that a utility must be granted an opportunity to actually earn the allowed rate of return. Mr. Hill turns this test on its head, by first assuming that APS *will* actually earn his recommended ROE, and then claiming a single financial ratio as "proof" that his recommendations are sound. While Mr. Hill does not deny that attrition is a force that impacts a utility's ability to earn its allowed return, he completely ignores this reality in evaluating his own recommendations. As a result, his "test" is inconsistent with the real world standards required of an authorized ROE.

V. APPLICATION OF STAFF'S METHODS AS A BENCHMARK

Q. HAVE MR. PARCELL OR MR. HILL PROVIDED ANY EVIDENCE TO JUSTIFY IGNORING THE RESULTS OF STAFF'S OWN METHODS IN ESTIMATING THE ROE FOR APS?

A. No. In my Rebuttal Testimony, I explained that application of the same methods advanced by the ACC Staff and adopted by the Commission just months ago imply an ROE for APS of 11.2%, before considering an adjustment for flotation costs.[10] Neither Mr. Parcell nor Mr. Hill have meaningfully addressed the discord between their recommendations in this case and the results implied by Staff's approaches in a recent case.

Q. WHAT ABOUT MR. PARCELL'S OBSERVATION (P. 11) THAT HIS CONCLUSIONS "ARE VERY SIMILAR" TO THOSE OF STAFF WITNESS ROGERS?

A. Mr. Parcell's observation is meaningless because it ignores fundamental differences between the water utilities that were the focus of Mr. Rogers' testimony in Docket No. W-01303A-05-0405, on the one hand, and electric utilities, such as APS, on the other. While Mr. Parcell urges the Commission to compare his "bottom line" recommendation with that of Mr. Rogers, this is comparing apples to oranges. Indeed, if Mr. Parcell's

[10] Avera Rebuttal at 28.

logic were true, the ACC could simply make one ROE finding and apply it across-the-board to all utilities, which is clearly nonsensical.

Consider the application of the CAPM, for example. Mr. Parcell, Mr. Hill, and I all agree that in applying the CAPM to estimate the cost of equity, the relevant measure of investment risk is beta. Beta reflects the tendency of a stock's price to follow changes in the market. A higher beta being indicative of higher risk and, correspondingly, a higher required return. The average beta for the group of water utilities referenced by Mr. Rogers was 0.71.[11] Meanwhile, Mr. Parcell indicated that the average beta for his comparison group in this case was 0.89, with Pinnacle West's beta being 0.95.[12] This comparison demonstrates that Mr. Parcell's comparison group is significantly more risky than the water utility group referenced by Mr. Rogers, which implies an ROE for APS that is considerably higher than the 10.4% recently authorized for the Paradise Valley Water District.

Q. APART FROM BETA, IS THERE OTHER EVIDENCE THAT CONFIRMS THIS CONCLUSION.

A. Yes. In a recent review of credit conditions in the water utility industry entitled, "Water Utilities Remain Islands of Stability," S&P noted that "U.S. water utilities have remained one of the most stable and highly rated sectors of the U.S. utility industry."[13] S&P concluded that:

> The U.S. water utility sector has long held a rating advantage over other U.S. utilities as a whole. For the year ended Dec. 31, 2005, 10 of the 11 (94%) water utilities had ratings in the "A" category or better, in contrast to only 34% of all U.S. utilities.[14]

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[11] Docket No. W-01303A-05-0405, Direct Testimony of Dennis Rogers at 29.

[12] Parcell Direct at Schedule 13.

[13] Standard & Poor's Corporation, "Water Utilities Remain Islands of Stability," *RatingsDirect* (Feb. 15, 2006).

[14] *Id.*

S&P went on to note that the *business profile* ranking – the measure of relative business risk referenced by Mr. Hill – averaged "between '2' and '3' (on a 10-point scale where '1' is excellent."[15] Meanwhile, as discussed in my Rebuttal Testimony, S&P has assigned a *business profile* ranking of "6" to APS, indicating substantially greater business risks than for the water utilities that were the subject of Mr. Rogers' recommendation.

Despite the fact that capital costs have increased since Mr. Rogers filed his testimony, and that APS and Mr. Parcell's comparison group both have significantly higher investment risks than a water utility, Mr. Parcell's recommended ROE falls *below* the 10.4% ROE approved by the ACC just two months ago. The only thing this comparison demonstrates is the inadequacy of Mr. Parcell's 10.25% ROE for APS. Contrary to Mr. Parcell's claim that I have taken Mr. Rogers' testimony out of context, I have put it *into context* by applying Staff's methods using capital market data specific to Mr. Parcell's own comparison group, and these analyses result in an average ROE of 11.2%.

Q. DID MR. HILL PROVIDE ANY BASIS FOR IGNORING THE RESULTS OF THE ACC STAFF'S ANALYSES?

A. No. Mr. Hill asserts (pp. 21-22) that "Dr. Avera's multi-stage DCF" is flawed. First, I would reiterate that the multi-stage model applied in my Rebuttal Testimony is not something of my own creation. Rather, it is the same approach utilized by the ACC Staff and adopted without discussion by the Commission in August 2006. Despite the fact that this method, including the underlying long-term growth rate, was accepted

[15] *Id.*

without comment by the ACC a scant 2 months ago, Mr. Hill arbitrarily cuts this growth rate in half.[16]

Meanwhile, Mr. Hill made no mention of Staff's risk premium applications whatsoever, and instead focused on the details underlying a selected few journal articles and a single analyst report. And while I grant Mr. Hill's observation (p. 16) that it was incorrect of me to include an inflation premium in interpreting the results of the *Mehra* study, this has no bearing on my conclusions.[17] In fact, no selected historical study, or group of studies, is a substitute for an analysis of investors' current expectations in the capital markets. Nor does a single figure from one securities analyst report provide compelling evidence concerning the extent to which an ROE recommendation meets the threshold test of reasonableness required by regulatory policy.

As discussed in my Direct and Rebuttal Testimony, analyses of the cost of equity that incorporate current expectations, including the methods previously adopted by the Staff and approved by the ACC, uniformly and conclusively demonstrate that Mr. Hill's recommended ROE falls far short of investors' required return.

VI. CONCLUSION

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY IN THIS PROCEEDING?

A. Yes.

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[16] The only support Mr. Hill offered for this adjustment was a historical comparison of growth in GDP with historical growth rates for utilities. As discussed repeatedly, however, in applying the DCF model, it is investors' *expectations* that are key, not historical relationships. Mr. Hill's comparison says nothing about the ability of the ACC Staff's growth rate to track investors' long-term expectations for utilities into the future.

[17] Multiplying the 6.9% risk premium over T-bills from the *Mehra* article by the average beta of 0.83 from Mr. Hill's Schedule 8, and then adding the resulting 5.7% risk premium to the average yield on 3-month bills for July 2006 of approximately 5% results in an indicated cost of equity for Mr. Hill's comparison group of 10.7%, which significantly exceeds his recommendation.

Laura L. Rockenberger

REJOINDER TESTIMONY OF LAURA L. ROCKENBERGER

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
Docket No. E-01345A-05-0827

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Decommissioning Funding ..... Attachment LLR-1-1RJ

REJOINDER TESTIMONY OF LAURA L. ROCKENBERGER
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E-01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is Laura L. Rockenberger. My business address is 400 North Fifth Street, Phoenix, Arizona, 85004. I am the Manager of Operations Accounting for Arizona Public Service Company ("APS" or "Company").

Q. HAVE YOU PREVIOUSLY FILED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. I will respond to the Surrebuttal Testimony of Mary Lee Diaz Cortez regarding decommissioning costs and amortization and the Surrebuttal Testimony of William A. Rigsby regarding property taxes.

Q. DOES YOUR SILENCE REGARDING ANY OF THE OTHER ISSUES DISCUSSED BY MARY LEE DIAZ CORTEZ OR WILLIAM A. RIGSBY INDICATE AN ACCEPTANCE OF THOSE POSITIONS BY THE COMPANY?

A. No. It does not.

Q. DOES YOUR SILENCE REGARDING ANY ISSUES DISCUSSED BY ANY OTHER PARTY INDICATE AN ACCEPTANCE OF THOSE POSITIONS BY THE COMPANY?

A. No. It does not.

II. SUMMARY

Q. WOULD YOU PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY?

A. My testimony provides additional information to demonstrate that the amounts funded into the Decommissioning Trusts are reflected as expenses in the Test Year and provides supplemental information on amortization and property taxes to support the Company's position on these matters.

III. DECOMMISSIONING

Q. DOES THE CASH FUNDING INTO THE DECOMMISSIONING TRUSTS EXCEED THE TEST YEAR EXPENSES, AS STATED IN THE SURREBUTTAL TESTIMONY OF MS. DIAZ CORTEZ?

A. No, it does not. The cash funding corresponds to the Test Year expense.

Q. HAVE YOU PREPARED AN ANALYSIS THAT IDENTIFIES THE TEST YEAR EXPENSES THAT PROVIDE FOR THE FUNDING LEVEL INTO THE DECOMMISSIONING TRUSTS?

A. Yes. Attachment LLR-1-1RJ provides the analysis that demonstrates the total cash funding of $16.1 million consists of $15.3 million in depreciation expense for funding of plant decommissioning activities and $.8 million in fuel expense for funding of post-shutdown spent nuclear fuel costs.

Q. DOES THE DECOMMISSIONING STUDY INCLUDE COSTS FOR BOTH DECOMMISSIONING ACTIVITIES AND POST-SHUTDOWN SPENT NUCLEAR FUEL ACTIVITIES?

A. Yes, the decommissioning study includes costs for both plant decommissioning activities and post-shutdown spent nuclear fuel activities. The funding levels have been approved by the Commission in Decision No. 67744 and the Company has Private Letter Rulings from the Internal Revenue Service for funding the decommissioning trusts based on the costs included in the decommissioning study.

IV. AMORTIZATION

Q. MS. DIAZ CORTEZ STATED THAT THE COMPANY WAS NOT RESPONSIVE TO RUCO DATA REQUEST 11.4 AND, AS SUCH, THE

COMPANY HAS NOT SUBSTANTIATED ITS PROPOSED AMORTIZATION EXPENSE. DID THE COMPANY RESPOND TO RUCO DATA REQUEST 11.4?

A. Yes. The Company provided a response to RUCO Data Request 11.4 ("RUCO 11.4") on July 21, 2006, which included detailed information by asset type within each asset category with the related monthly amortization expense and annualized amounts. Additionally, the amortization rates were included in my Direct Testimony as Attachment LLR-2-11. No further data requests were received from Ms. Diaz Cortez stating that further information was needed related to RUCO 11.4.

Q. HAS THE COMPANY PROVIDED ADDITIONAL INFORMATION FOR RUCO 11.4?

A. Yes. On October 3, 2006, the Company provided supplemental information to RUCO 11.4 to provide further support for the calculations included in the Test Year expense.

V. PROPERTY TAXES

Q. MR. RIGSBY STATED IN HIS TESTIMONY THAT THE COMPANY HAS NOT UPDATED RUCO DATA REQUEST 11.2 ("RUCO 11.2"), AND, AS SUCH THE COMPANY HAS NOT PROVIDED SUFFICENT INFORMATION TO SUBSTANTIATE THE 2007 PROPERTY TAX EXPENSE CALCULATION REFERENCED IN MY REBUTTAL TESTIMONY. HAVE YOU SINCE UPDATED DATA REQUEST 11.2?

A. Yes. RUCO 11.2 has been updated to provide supplemental information to support the 2007 property tax calculations included in my Rebuttal Testimony and related work papers. This information was provided to RUCO on October 3, 2006.

Q. IN HIS SURREBUTTAL TESTIMONY, MR. RIGSBY STATED THAT HE DOES NOT SUPPORT USING 2007 DATA IN THE TEST YEAR. CAN YOU EXPLAIN WHY YOU SUPPORT USING THE 2007 DATA IN CALCULATING THE TEST YEAR EXPENSE?

A. The 2007 property tax expense calculation is based on historical Plant-in-Service general ledger plant balances at December 31, 2005 which are both known and measurable. Assuming that the rates from this proceeding will go into effect in 2007, it seems logical

that the Test Year expense should be based on projected 2007 property taxes to ensure the regulated rates provide for our 2007 property tax expense.

VI. CONCLUSION

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY IN THIS PROCEEDING?

A. Yes.

Chris N. Froggatt

REJOINDER TESTIMONY OF CHRIS N. FROGGATT

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
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ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is Chris N. Froggatt, and I am Vice President and Controller for Arizona Public Service Company ("APS" or "Company"). My business address is 400 North Fifth Street, Phoenix, Arizona, 85004.

Q. DID YOU PREVIOUSLY FILE DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. I have reviewed the Surrebuttal Testimony of Staff witness Dittmer and am responding to his latest proposal for the treatment of certain Investment Tax Credits ("ITCs").

Q. DOES YOUR SILENCE REGARDING ANY OF THE ISSUES DISCUSSED BY OTHER PARTIES INDICATE AN ACCEPTANCE OF THOSE POISTIONS BY THE COMPANY?

A. No, it does not. For those issues, the Company maintains its position discussed in previous testimony.

II. SUMMARY OF REJOINDER TESTIMONY

Q. PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY.

A. In surrebuttal testimony, Staff proposes a modification to its original rate base treatment of ITCs (as proposed in Staff Direct Testimony) in order to address the fact that implementation of Staff's initial proposal would constitute an IRS normalization

violation. While the modified proposal does address that one concern, I continue to believe that Staff's treatment of these ITCs is inappropriate and inconsistent with prior Commission directives, and that these credits should be eliminated from rate base in their entirety.

III. STAFF'S MODIFIED ITC RATE BASE PROPOSAL

Q. PLEASE SUMMARIZE STAFF'S TREATMENT OF THESE CREDITS.

A. In Direct Testimony, Staff proposed a 50/50 ratepayer/shareholder sharing of the "net" savings realized from the Company's recent ITC claim. In my Rebuttal Testimony, I discussed how this proposal would violate the normalization provisions of the Internal Revenue Code. Material ramifications of such a violation would include the forfeiture of tens of millions of dollars in previously claimed ITCs. In Surrebuttal Testimony, Staff modified their rate base proposal in an attempt to avoid any violation. Staff now proposes that 100% of the *unamortized* ITC balance related to plant *not fully depreciated* be reflected as a rate base offset.

Q. DO YOU AGREE THAT THE MODIFIED PROPOSAL AVOIDS AN IRS NORMALIZATION VIOLATION?

A. Yes, I believe Staff's latest proposal would not result in an IRS violation. However, I do not support or agree with Staff's modified proposal.

Q. WHY DO YOU CONTINUE TO DISAGREE WITH THE PROPOSAL?

A. First of all, this proposed treatment is still wholly inconsistent with Decision No. 58644, wherein the Company was authorized to accelerate amortization of **all** deferred ITCs over a five year period beginning in 1995. The Company's ITC claim in question related to the years *1986 through 1990.* Had these credits been issued on original income tax returns, they would have been fully amortized by the year 2000 – some 6 years ago.

Q. WHAT ARE YOUR OTHER CONCERNS?

A. As I discussed in my Rebuttal Testimony, both the costs to obtain these tax credits and the tax credits themselves are **non-recurring** and clearly **unrelated** to the test year. For this reason alone, Staff's modified proposal should be rejected. The Company **is** in full agreement with excluding the cost of obtaining these ITCs from test year operating expense.

IV. CONCLUSION

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes, it does.

Fred Balluff

REJOINDER TESTIMONY OF FRED H. BALLUFF

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
Docket No. E-01345A-05-0827

October 4, 2006

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REJOINDER TESTIMONY OF FRED H. BALLUFF
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is Fred H. Balluff. My address is 238 Elm Park Avenue, Elmhurst, Illinois 60126.

Q. ARE YOU THE SAME FRED H. BALLUFF WHO PREVIOUSLY FILED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. My purpose is to respond to the Surrebuttal Testimony of Staff witness James Dittmer regarding the cash working capital requirements of APS. I have specific comments on the positions that Mr. Dittmer took on plant with respect to cash working capital requirements ("CWC").

II. REJOINDER TO JAMES DITTMER

Q. WHAT IS MR. DITTMER'S POSITION ON PLANT?

A. Mr. Dittmer apparently believes that depreciation expense should not be included in a lead lag study, in part because payments for some expenditures related to recently completed construction projects have not been paid at the end of the test year September 30, 2005.

Q. DO YOU AGREE?

A. I agree that at the time a construction project is completed and transferred to Plant-in-

Service there may be an insignificant amount of costs that have not been paid. However, I do not believe that it is relevant to our argument that the revenue lag applicable to depreciation expense should be included in the calculation of CWC.

Q. WHY DO YOU BELIEVE THAT THESE UNPAID BILLS ARE INSIGNIFICANT?

A. Based on information provided by APS, unpaid liabilities related to Plant-in-Service approximate $1.8 million dollars. That amount appears to be reasonable. Payments are made to contractors throughout the course of a construction project. Also, the Company must test the operations of major plant before it is deemed ready for service and transferred to Plant-in-Service.

Q. WHAT OTHER COMMENTS DO YOU WISH TO MAKE WITH RESPECT TO MR. DITTMER'S POSITION?

A. First, it is important to keep in mind the relationship between rate base, operating expenses and the return on rate base in the determination of revenue requirements. I discussed this issue in my rebuttal testimony on page 4. Second, it is important to consider our arguments that address why the revenue lag related to depreciation expense should be included in the calculation of CWC. I discussed this in my direct and rebuttal testimony. See my rebuttal testimony beginning on line 9 of page 2 and ending on line 9 of page 3. The primary issue is that depreciation expense is recorded and rate base is reduced before such expenses are recovered from customers. The issue regarding unpaid liabilities existing at the time plant is placed in service is another issue.

Q. DO YOU BELIEVE THAT THE EXISTING UNPAID LIABILITIES SHOULD BE REFLECTED IN THE CALCULATION OF RATE BASE IN THIS CASE?

A. No. First, the amounts involved are insignificant. There are other considerations. There are significant differences between an investment in plant and a recovery of plant. In my rebuttal testimony, I explained why Mr. Dittmer's comments that recovery of the

accumulated depreciation by the time rates are in effect were not relevant to the recovery of depreciation expense. However, it is relevant to plant. In the absence of new plant completed from the time rates are placed into effect (January 1, 2007), there would still be a revenue lag associated with the recovery of depreciation at any intervening month, as well as at January 1, 2007. There would be no unpaid liabilities related to Plant-in-Service.. If construction projects are completed in the time frame, the amount of investment completed varies by month.

Additionally, there is generally a regulatory lag between the time new plant is placed in service and recovery of the cost of capital associated with that plant is realized in revenues. In this case, rates will not be changed to reflect new plant for over a year after September 30, 2005. New plant additions have been an important cause of earnings erosion (attrition) over the past thirty-five years because of regulatory lag. Plant generally is placed in service at a higher unit cost than replaced plant. Plant placed in service for environmental purposes does not increase revenues. Such plant will not produce revenues until a new rate case is decided. Even when new revenue producing facilities are placed in service, there may be substantial delays in full utilization of facilities.

III. CONCLUSION

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY IN THIS PROCEEDING?

A. Yes.

Teresa A. Orlick

REJOINDER TESTIMONY OF TERESA A. ORLICK

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
Docket No. E-01345A-05-0827

October 4, 2006

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REJOINDER TESTIMONY OF TERESA A. ORLICK
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY

(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E-01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Teresa A. Orlick, 400 North Fifth Street, Phoenix, Arizona 85004.

Q. DID YOU PREVIOUSLY FILE REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. To reconfirm the positions in my rebuttal testimony, respond affirmatively to the Staff's proposal on the Demand Side Management ("DSM") Performance Incentive, and provide a DSM program update.

Q. DOES YOUR SILENCE REGARDING ANY OF THE ISSUES DISCUSSED BY OTHER PARTIES INDICATE AN ACCEPTANCE OF THOSE POSITIONS BY THE COMPANY?

A. No, it does not. For those issues, the Company maintains its positions discussed in previous testimony.

II. DSM PERFORMANCE INCENTIVE

Q. HAVE YOU READ THE SURREBUTTAL TESTIMONY ON THE TOPIC OF DSM PROVIDED BY WITNESSES J. ANDERSON (STAFF), J. SCHLEGEL (SWEEP), D. BERRY (WRA) AND M. DIAZ-CORTEZ (RUCO)?

A. Yes, I have.

Q. PLEASE PROVIDE YOUR RESPONSE TO STAFF'S PROPOSAL FOR THE DSM PERFORMANCE INCENTIVE.

A. I agree with the proposal provided in Staff's testimony (JD Anderson, page 3 line 23 through page 4 line 13) regarding the DSM Performance Incentive. In particular, I agree with using the measured savings developed by the Measurement, Evaluation and Research (MER) contractor to determine the net benefits of the DSM Portfolio starting with the second semi-annual DSM report for 2007. Prior to that period, APS agrees to use current and regionally similar figures for the energy savings to determine the DSM Portfolio net benefits, which will include input and review from the MER contractor. There may be instances where the program-filed savings numbers are the most current and regionally similar.

III. DSM PROGRAM UPDATE

Q. PLEASE UPDATE US ON THE PROGRESS OF THE DSM PROGRAMS.

A. Actual spending January 2005 through August 2006 totaled $6.7M. At this time, we estimate that spending for the remainder of 2006 will reach $5.9M, for a total program spending through year-end 2006 of $12.6M.

Q. HOW MANY MWH SAVINGS RESULT FROM THE TOTAL DSM SPENDING THROUGH END OF 2006?

A. We will have saved, in annual terms, over 127,000 MWh resulting from this DSM spending and the corresponding DSM measures installed in 2005 and 2006. Mr. Ewen provides an updated estimate of the financial impact of these reduced sales in his Rejoinder Testimony.

Q. DO YOU STAND BY YOUR REBUTTAL TESTIMONY IN ALL OTHER REGARDS?

A. Yes, I do.

Q. HAS WITNESS ANDERSON, SCHLEGEL, BERRY OR DIAZ-CORTEZ

ADDED ANY NEW OR ADDITIONAL INFORMATION OR EVIDENCE THAT WOULD CAUSE YOU TO CHANGE ANY OTHER ASPECT OF YOUR REBUTTAL TESTIMONY?

A. No.

III. CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Barbara D. Lockwood

REJOINDER TESTIMONY OF BARBARA D. LOCKWOOD

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
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REJOINDER TESTIMONY OF BARBARA D. LOCKWOOD ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY

(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E-01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Barbara D. Lockwood, 400 North Fifth Street, Phoenix, Arizona 85004.

Q. ARE YOU THE SAME BARBARA D. LOCKWOOD WHO PREVIOUSLY FILED REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. I have reviewed the surrebuttal testimony of Mr. Robert Annan representing Solar Advocates, Ms. Amanda Ormond representing Interwest Energy Alliance and Dr. David Berry representing Western Resource Advocates. While there have been a number of issues addressed in these testimonies, I will be only responding to new issues or new arguments. Therefore, I will be addressing the following issues: the price of solar energy included in the Total Solar rate schedule, the suggested Independent Evaluator, and the projects that are proposed for the Green Power rate schedules.

Q. DOES YOUR SILENCE REGARDING ANY OF THE ISSUES DISCUSSED BY OTHER PARTIES INDICATE AN ACCEPTANCE OF THOSE POSITIONS BY THE COMPANY?

A. No, it does not. For those issues, the Company maintains its positions discussed in previous testimony.

II. PRICE OF SOLAR GENERATION

Q. WHAT IS YOUR GENERAL PERSPECTIVE ON MR. ANNAN'S TESTIMONY?

A. We believe that Mr. Annan may have misunderstood the purpose of our Total Solar schedule. Mr. Annan asserts that there are many other less expensive alternatives APS customers can rely upon to support solar energy including the APS buydown program. It is true that there are less expensive alternatives. It is also true that not all APS customer are able to, or desire to, install a solar system at their home or business, as required by our Solar Partners Incentive Program. For example, residents in a condominium complex or businesses that lease their office space may not have the right to install a system. Other homeowners or businesses may not wish to maintain a solar system. The Total Solar schedule was designed for those customers. APS will install, maintain and operate a system for those customers who do not desire to, or can not, do it themselves. APS' objective is to provide a choice for our customers.

Q. MR. ANNAN ASSERTS THAT $0.39 PER KWH IS UNREASONABLE. DO YOU AGREE?

A. No. The $0.39 per kWh is the cost for APS to install and operate the photovoltaic systems described in my rebuttal testimony for the purpose of this rate. The costs included in this price are a combination of capital and financing as well as operation and maintenance expenses.

Q. DID APS CHOOSE THE MOST COST EFFECTIVE SYSTEM FOR THIS SCHEDULE?

A. Yes. APS selected the most cost effective photovoltaic system available to us today. While it is true that the APS Prescott system costs discussed by Mr. Annan have a lower initial capital cost, the systems referenced by Mr. Annan were

installed in 2003 and 2004. Since that time, APS has seen significant increases in module costs. A market survey performed by a leading solar consultant showed increases of approximately 10% on photovoltaic modules alone (Source http://www.solarbuzz.com/Moduleprices.htm). This increase was confirmed by a publication of the U.S. DOE Energy Information Administration's report "Solar Thermal and Photovoltaic Collector Manufacturing Activities 2005." In addition to the increase in module costs, there have been inflationary pressures on all areas of construction labor and materials. As a result, APS has seen increases in all major components of the systems referred to by Mr. Annan. Even more importantly, the system we chose produces approximately 15% more energy than other utility-scale photovoltaic systems (including the systems installed at Prescott that were referenced by Mr. Annan) and 50% more energy than fixed rooftop photovoltaic systems. In conclusion, even though the capital cost for the system is somewhat higher, the increase energy production makes it at least as cost effective, if not more cost effective, than the alternatives.

Q. WOULD INSTALLATION OF A LARGER PHOTOVOLTAIC SYSTEM DECREASE THE COST?

A. No. As previously discussed, the systems we selected produce approximately 15% more energy on a per unit basis compared to the other utility-scale photovoltaic options. Furthermore, the additional energy production per installed kilowatt minimizes recent increases in photovoltaic cost as well as the increases in construction cost. Lastly, the incremental approach to building photovoltaic capacity for this purpose allows APS to take advantage of any improvements in technology or system cost which are predicted. Since we do not know how many customers will participate, APS chose a system that could be installed in 3.5 kilowatt increments, allowing for rapid installation in small increments. This

approach allows APS to service the customers who sign up for this rate without APS over-investing in generation that costs considerably more than conventional generation and burdening customers who are not interested in supporting solar energy.

Q. IS IT POSSIBLE TO GET BETTER PRICES FOR OTHER SOLAR TECHNOLOGIES?

A. Yes. APS believes that it is possible to get lower unit cost for solar energy from concentrating solar plants, assuming the project is in the 50 to 250 megawatt range with APS making a commitment to a long term power purchase agreement. In this case, the cost could be in the range discussed by Mr. Annan. The challenge with using concentrating solar technology is the size. A project sized at less than 50 MW would not be able to capture the necessary economies of scale, and 50 MW is a large financial commitment. To fully subscribe a plant of this size, more than 10,000 residential customers with average usage would have to join the program at a significant premium over current rates. This number of customers would be several times more than those participating in the current APS Solar Partners Rate Program.

Q. MR ANNAN SUGGESTS THAT THE TUSCON ELECTRIC POWER SPRINGERVILLE SOLAR FACILITY COST IS AN APPROPRIATE COMPARISON FOR THIS RATE. DO YOU AGREE?

A. No. As reported in the Cost Evaluation Working Group report, both TEP and APS' existing solar facilities were constructed using Environmental Portfolio Standard ("EPS") funds, and no financing costs were incurred. In addition, the costs reported in the Cost Evaluation Working Group report do not include a number of other expenses such as property taxes or long-term operations and maintenance. The purpose of the Total Solar rate schedule is to provide solar

energy to customers concurrently with their energy usage. Consequently, the facility must be constructed *prior* to signing up customers. Capital investment in the solar infrastructure must be spent prior to receiving customer funds with no guarantee of a revenue stream. To provide this service to our customers, APS will have to finance the capital costs as it would any other utility capital project, increasing the overall cost of the project but allowing it to be recovered over an expected system life of 25 years.

Q. ARE YOU FAMILIAR WITH THE GOVERNMENT ESTIMATES FOR LARGE-SCALE SOLAR PROJECTS THAT MR. ANNAN REFERENCES?

A. Mr. Annan did not provide specific references so it is difficult to know what was included in the costs he references. However, we are not aware of any government estimates within the prices listed in Mr. Annan's testimony for photovoltaic projects that exclude the federal investment tax credit and include financing and other operational costs. The draft Solar Electric Road Map recently prepared by Navigant Consulting for the Arizona Department of Commerce estimates the cost of central station photovoltaics to be around $0.54 per kilowatt hour without the federal investment tax credit. A report prepared by the California Energy Commission in June 2005 titled Developing Cost-Effective Solar Resources with Electricity System Benefits, identifies the 2003 cost for utility-scale PV systems as $0.25 to $0.40 per kilowatt hour. The cost proposed by APS is less than the recent Navigant report and consistent with the California Energy Commission report.

Q. MR. ANNAN ASSERTS THERE IS VIRTUALLY NO RISK TO APS WITH THIS PROGRAM. DO YOU AGREE?

A. Absolutely not. The vast majority of the costs for solar projects are upfront capital

investments, and APS will spend money without a guarantee of customer participation to pay for the initial capital investment. The price offered in this rate is based on recovering the investment over an expected system life of 25 years. Total Solar customers are only required to commit to one year of participation. If participation drops during the 25 years, APS would have no guarantee of recovery and would need to look to other mechanisms to pay for the investment.

Q. ARE THERE ANY OTHER MECHANISMS THAT APS COULD EXPLORE TO POTENTIALLY REDUCE THE COST OF THIS OFFERING?

A. Yes. As suggested by Mr. Annan, APS could explore a long term contract with a third party for the installation, operation and maintenance of an appropriately-sized solar installation. As Mr. Annan points out, APS is ineligible for the federal investment tax credit, but another entity could potential use the credit to reduce the overall cost to the ratepayer. Many factors will influence the cost for such a contract, including the third party's cost of capital and the term of the contract. However, we agree that this option deserves consideration.

Q. WHAT ARE THE POTENTIAL IMPACTS OF ACQUIRING THE NECESSARY ENERGY FROM A THIRD PARTY?

A. As described in Mr. Annan's testimony and acknowledged above, it is possible that a third party developer can provide an incremental solar energy product at a cost lower than that proposed by APS. In order to secure such a resource at an incrementally low price, APS would be required to enter into a long-term (10-year to 25-year) agreement. APS' proposed Solar-3 would allow customers to participate with no more than a one year commitment to the rate. As described, the Company would be required to procure resources to meet the demand of all Solar-3 participants in any given year. This demand could be higher in one year

than in a subsequent year and as a result APS would have committed to the incremental solar product in excess of the Solar-3 demand.

III. INDEPENDENT EVALUATOR

Q. MS. ORMOND ASSERTS THAT THE RES REQUIREMENT FOR INDEPENDENT AUDIT OF PROCEDURES IS NOT SUFFICIENT TO ASSURE A FAIR RFP PROCESS. DO YOU AGREE?

A. No, we do not. The Staff Report recommending amendments to the EPS dated February 3, 2006, page 16, Section L, states that "The proposed rules contain provisions that are intended to ensure the fairness of the resource selection process." The September 29, 2006 RES Recommended Order retains this recommendation in R14-2-1812.B.5. APS believes that Staff's intent was to assure oversight of the procedures and processes associated with resource selection. Since it is a requirement of our compliance filing, it is appropriate for APS to work with the independent auditor to review our processes and procedures *before* applying them to select a resource. We fully intend to do so. Ms. Ormond also asserts that the process only applies to the procurement of resources under the RES. APS has various requirements associated with renewable energy, but APS uses a single comprehensive process for evaluating and selecting renewable resources. APS fully anticipates reporting on all renewable energy activities in its annual EPS/RES compliance report and obtaining certification for all resource selection.

Q. MS. ORMOND ASSERTS THAT $100,000 FOR AN INDEPENDENT EVALUATOR WOULD HAVE LITTLE IMPACT ON THE COST OF THE ENERGY PURCHASED. DO YOU AGREE?

A. While it is true that the average cost of the energy purchased would not increase substantially, it is also true that APS costs would not decrease and the incremental costs would be born by the ratepayer. For $100,000, APS could pay an incentive

for eleven (11) 3-kilowatt solar rooftop systems.

IV. GREEN POWER SCHEDULES

Q. DR. BERRY ASSERTS THAT THE RENEWABLE ENERGY PROVIDED BY THE PROPOSED GREEN POWER RATE SCHEDULE SHOULD BE OVER AND ABOVE ANYTHING REQUIRED BY STATE OR FEDERAL RPS REQUIREMENTS. DO YOU AGREE?

A. Yes. The energy provided is in excess of the EPS/RES and Decision No. 67744 requirements. The projects identified in the proposed Green Power Schedule will produce energy in excess of the EPS/RES requirement. A generation project may provide energy to both EPS/RES and Green Power requirements, but the energy will not be double counted. The proposed application of the included projects is in full compliance with the Green-e Certification Program as detailed in Section III.D of the standard, "...a facility that is generating renewable energy in excess of the government mandate or other legal contract...may be used in a Green-e certified product."

Q. ARE THE PROJECTS PROPOSED FOR THE GREEN POWER RATE SCHEDULE NEW?

A. Yes. The renewable energy projects included in APS' proposed Green Power Rate Schedules are new. The included geothermal project entered service in January 2006, one of the wind projects included is scheduled to enter service in late-2006, and the second wind project included is scheduled to enter service in early-2007. The Green-e Renewable Electricity Certification Program, National Standard Version 1.3, Section II. E indicates that new renewables are defined to "include any eligible renewable facility beginning operation or repowered after January 1, 1997."

Q. IS THE 10 PERCENT OPTION OFFERED UNDER THE PROPOSED GREEN POWER RATE SCHEDULE COMPLIANT WITH GREEN-E

CERTIFICATION REQUIREMENTS?

A. Yes. A utility with percentage-of-use retail electricity offerings of less than 50 percent must additionally offer a customer option of 100 percent to residential customers for the products to be Green-e certifiable (Green-e standard, Section III.A.1). APS believes the Green-e standard is ambiguous on this subject. Although it is clearly stated that "offerings must offset at least 25 percent of a residential customer's electricity usage," the standard further states that "if a marketer or utility offers the option to offset less than 50 percent of a residential customer's electricity use, they must also offer a 100 percent option to residential customers." APS' proposed Green Power Rate Schedules offer percentage-of-use options of 10, 35, 50, and 100. APS believes that including the 100 percent option will allow for Green-e Certification of the Green Power products. Further APS strongly believes that it is important to offer alternatives that will insure that any interested APS customer can afford to participate in this exciting new rate. APS believes that the 10 percent alternative helps ensure that this is possible.

Q. IS THE COMPANY RECOMMENDING ANY OTHER CHANGES TO GREEN POWER RATES?

A. Yes, just one clarification. In order to help ensure that customers do not subscribe to more green power or solar power than they consume each month, the Company recommends that the relevant rate schedules reflect this requirement and that the customer be limited to participate in only one green power or solar rate option. This would include GPS-1A, GPS-2A, Solar-1, Solar-2, Solar-3 and SP-1.

V. <u>CONCLUSION</u>

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes, it does.

Gregory A. DeLizio

REJOINDER TESTIMONY OF GREGORY A. DeLIZIO

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
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REJOINDER TESTIMONY OF GREGORY A. DeLIZIO
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY

(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E-01345A-05-0827)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Gregory A. DeLizio. My business address is 400 North Fifth Street, Phoenix, Arizona 85004.

Q. DID YOU FILE DIRECT AND REBUTTAL TESTIMONY IN THIS DOCKET?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. My Rejoinder Testimony shall address comments and recommendations made by Staff and other parties in their Surrebuttal Testimony concerning the Company's proposals for an Environmental Improvement Charge ("EIC"), a net metering rate (EPR-5), and rates for partial requirements service (revised EPR-2, E-56 and E-57).

Q. DOES YOUR SILENCE REGARDING ANY OF THE ISSUES DISCUSSED BY OTHER PARTIES INDICATE AN ACCEPTANCE OF THOSE POSITIONS BY THE COMPANY?

A. No, it does not. For those issues, the Company maintains its positions discussed in previous testimony.

II. SCHEDULE EIC - ENVIRONMENTAL IMPROVEMENT CHARGE

Q. PLEASE SUMMARIZE THE SURREBUTTAL TESTIMONY OF STAFF AND OTHER PARTIES CONCERNING THE EIC?

A. Staff and the Residential Utility Consumer Office ("RUCO") address the EIC in

their Surrebuttal Testimony, but they do not offer any new information justifying their opposition to the EIC, nor do they substantively rebut any of the additional information concerning the EIC provided in my Rebuttal Testimony or the Rebuttal Testimony of Company witness Ed Fox. Intervenor Western Resource Advocates ("WRA") continues to support the EIC, including the changes that were proposed in the Rebuttal Testimony of Mr. Fox.

III. ADJUSTMENT SCHEDULE EPS-1 ENVIRONMENTAL PORTFOLIO STANDARD

Q. DO STAFF AND OTHER PARTIES AGREE WITH THE PROPOSED CHANGE TO SCHEDULE EPS-1?

A. Yes. RUCO and AECC agree with the proposed change to Schedule EPS-1, as set forth in my Rebuttal Testimony and the testimony of Staff witness Barbara Keene, which funds an additional $4.25 million EPS revenue requirement approved in Decision No. 68668. No party opposes the proposed change.

IV. NET METERING RATE EPR-5

Q. PLEASE SUMMARIZE THE SURREBUTTAL TESTIMONY OF STAFF AND OTHER PARTIES CONCERNING SCHEDULE EPR-5 (NET METERING).

A. Solar Advocates witness Ed Smeloff continues to advocate that customers with renewable power generators up to 2 MW in size should be allowed to participate in the Company's net metering program. The Company's proposed cap on individual generator size is 10 kW. Mr. Smeloff opposes the recovery of net lost revenues associated with the net metering program. Mr. Smeloff supports the Company's proposal to use a single bi-directional meter for net metering. No other party provided additional testimony on the Company's proposed net metering program.

Q. DO YOU AGREE WITH MR. SMELOFF'S RECOMMENDATION ON

THE PROPOSED CAP?

A. No. In his Rebuttal Testimony, Mr. Smeloff offers no new information or credible reasons to justify his proposed 2 MW cap on individual generators for the net metering program. Furthermore, Mr. Smeloff attempts to defend his recommendation with a somewhat inappropriate comparison of distributed generation to energy conservation and an over-stated distinction between "net metering" and "net billing", which the Company believes is not really relevant given the types of distributed renewable energy systems that are being installed in Arizona and the amount of excess power that is typically being generated by customers.

Q. PLEASE EXPLAIN YOUR LAST STATEMENT.

A. As I described in my Rebuttal Testimony, both net metering and net billing allow the customer to supply their own energy needs with a qualifying generator. At any given time, if the customer's generation is greater than their load, the excess power flows back to the grid and is compensated by the Company. The difference is that under net billing excess power is purchased at an avoided cost rate, while under net metering the excess power is credited against power that the customer purchases from the Company in future billing periods and is therefore compensated at full retail rates. Under both net metering and net billing the Company provides backup service in case the customer's generator has an outage, but does not charge the customer the cost for backup service.

Mr. Smeloff portrays the distinction between net metering and net billing as a make or break situation: customers would install renewable generators under net metering, but not under net billing, supposedly because the customer benefits of the former are far superior to the latter. However, the Company believes that this

is simply not the case. Almost all of the customer renewable generators that are currently participating in the Company's net billing rates, and that are expected to participate in the net metering program, are solar photovoltaic systems, which due to their expense, are typically sized to service only a portion of the customer's energy needs. As a result, very little excess power is being generated for sale to APS at any rate.

For example, during the test year customers on our net billing rates, EPR-2 and EPR-4, purchased 2,298 kWh per month on average from the Company and sold back 94 kWh per month. In other words, the excess power was only 4% of the customer's purchases and even a smaller percent of their load. As a result, the difference in financial benefit to the customer between net metering and net billing would probably only amount to a few dollars per month for a typical customer. In fact, the financial benefits from federal and state tax credits and the Company's Solar Partners Incentive Program are undoubtedly much more important for a customer's decision to invest in renewable generation.

Q. WHAT ABOUT MR. SMELOFF'S COMPARISON OF DISTRIBUTED GENERATION TO ENERGY CONSERVATION?

A. Mr. Smeloff argues that the economic impact of distributed generation to a utility and its customers is exactly the same as energy conservation. He equates installing a distributed generation system to installing an energy efficient appliance or unplugging a refrigerator in the garage. We assume the latter also involves removing the refrigerator. The Company does not have a program that encourages customers merely to unplug an appliance because these "nega-watts" would be too unreliable and therefore provide little value to the Company or its customers (the customer could obviously just plug the appliance back in).

Therefore, Mr. Smeloff concludes that there should not be any artificial caps on the net metering program or additional costs imposed on customers with distributed generation.

The Company believes that this line of reasoning is faulty and potentially misleading. In fact, there is at least one key difference between distributed generation and energy conservation that would merit differential treatment. This key difference involves the nature of what happens during a failure of the customer's generator or appliance. When an energy efficient appliance or other conservation measure fails (i.e. stops working) the customer's associated load is also removed, which reduces the utility's system load and their instantaneous generation requirement. Conversely, when a distributed generation unit incurs an outage, the customer's associated load is typically not reduced; the utility's load would actually increase creating an additional instantaneous burden on power generation. In other words, the Company would have to backup the customer's generator with generation, transmission, and distribution capacity, while the Company would not have to backup an energy conservation measure. Under the Company's proposed net metering program, the customer is not charged for this backup service, which is one of the reasons that we believe that it should only be offered for smaller renewable distributed generators with a maximum nameplate rating of 10 kW.

Q. DOES THE COMPANY AGREE WITH MR. SMELOFF'S RECOMMENDATION ON THE RECOVERY OF NET LOST REVENUES FROM THE NET METERING PROGRAM?

A. No. Mr. Smeloff opposes the recovery of net lost revenue from the Company's proposed net metering program and claims that such recovery is unnecessary because the Company is experiencing rapid growth. His reasoning appears to be

that because the Company's energy sales and revenue are growing, we shouldn't be concerned about losing sales and revenues from a net metering program, which encourages customers to generate their own power. The Company believes that Mr. Smeloff's argument misses the point. Whether APS sales are growing, remaining flat, or declining, they will be less than they would have been absent the distributed generator. The Company's rapid growth also carries with it the additional costs to serve our increasing customer base. This additional financial burden heightens, not lessens, the importance of preserving the margins from customers participating in public benefit programs like net metering.

Q. WHAT DOES THE COMPANY RECOMMEND?

A. The Company continues to recommend the net metering program proposed in my Direct Testimony, which includes the cap of 10 kW on individual generator size. As discussed in my Rebuttal Testimony, this requirement is consistent with industry practice, and the Company has net billing and other standby rates to accommodate customers with larger generators. The Company also continues to recommend the recovery of net lost revenues associated with the net metering program for reasons discussed in my Direct and Rebuttal Testimony.

V. RATES FOR PARTIAL SERVICE REQUIREMENTS

Q. WHAT WERE OTHER PARTIES COMMENTS ON APS' PARTIAL REQUIREMENT RATES?

A. Staff began their review of the proposed partial requirements rates, E-56 and E-57 and does not have any concerns so far. No other party commented on or opposes the proposed changes to the Company's partial requirement rates.

VI. SERVICE SCHEDULE 1

Q. WHAT ARE THE TOPICS DISCUSSED BY STAFF WITNESS

ANDREASEN THAT YOU ARE ADDRESSING?

A. I address Staff's proposed clarification to Service Schedule 1.

Q. PLEASE DISCUSS THE STAFF PROPOSED CLARIFICATION TO SCHEDULE 1.

A. Ms. Andreasen recommends in her testimony that APS should include a definition for Multi-Unit Residential High-Rise Developments on Schedule 1.

Q. DO YOU AGREE WITH HER RECOMMENDATIONS?

A. Yes. The Company will add the definition and it will be identical to that incorporated within the Company's proposed definition for Multi Unit Residential High Rise Developments proposed in Schedule 3 as supported by Witness Rumolo. Assuming the Commission approves Schedule 1 as modified, we will include Staff's changes in our tariff compliance filing at the conclusion of the case.

VII. CONCLUSION

Q. WOULD YOU PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY?

A. The Company does not believe that Staff or RUCO provide any additional information or credible reasons to justify their opposition to the proposed EIC charge. Therefore, APS recommends that the Commission approve the EIC charge as proposed by the Company. The Company does not believe that any party provides new information or justification to modify the Company's proposed net metering rate and continues to recommend that the Commission approve the rate as proposed. While Staff has not completed their review of the Company's proposed partial requirements rates, they have not found any issues to date. No other party opposes the rates. Therefore, the Company recommends that

the Commission approve the Company's proposed partial requirements rates.

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes, it does.

David J. Rumolo

REJOINDER TESTIMONY OF DAVID J. RUMOLO

On Behalf of Arizona Public Service Company

Docket No. E-01345A-05-0816
Docket No. E-01345A-05-0826
Docket No. E-01345A-05-0827

October 4, 2006

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REJOINDER TESTIMONY OF DAVID J. RUMOLO
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY

(Docket No. E-01345A-05-0816)
(Docket No. E-01345A-05-0826)
(Docket No. E-01345A-05-0827)

I. Introduction

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. David J. Rumolo, 400 North Fifth Street, Phoenix, Arizona 85004.

Q. DID YOU PREVIOUSLY FILE DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. My rejoinder testimony addresses two topics that were discussed in the surrebuttal testimony of Staff Witness Erinn Andreasen. I also discuss the issue of transmission cost allocation that was raised by AECC Witness Kevin Higgins in his surrebuttal testimony.

Q. DOES YOUR SILENCE REGARDING ANY OF THE ISSUES DISCUSSED BY OTHER PARTIES INDICATE AN ACCEPTANCE OF THOSE POSITIONS?

A. No, it does not. An absence on my part of a response to a surrebuttal issue should not be taken as acceptance of any party's testimony; instead it is an indication that I maintain my position, as discussed in previous testimony.

Q. WHAT ARE THE TOPICS DISCUSSED BY STAFF WITNESS ANDREASEN THAT YOU ARE ADDRESSING?

A. I address the Rate Schedule ET-2 design issue and clarifications to Schedule 3.

II. Rate Schedules

Q. PLEASE DISCUSS THE RATE SCHEDULE ET-2 DESIGN ISSUE.

A. Ms. Andreasen notes in her testimony that the winter off-peak charges under Rate Schedule ET-2 are higher than the summer off-peak charges under the APS design proposal. She also comments that generation costs tend to be higher in summer than winter. I agree with her observation to a limited extent. On-peak generation is clearly more expensive for APS in the summer. However, that higher cost has a significant capacity cost element in addition to an energy cost element. Off-peak prices have little or no capacity element. Today, marginal generation resources are gas-fired (either through market purchases or Company-owned generation) for most hours of the year. In the winter, gas prices tend to be higher than during the summer, and off-peak electricity prices at the Palo Verde hub can be higher in winter than during the summer, due to the gas cost impacts. Therefore, it is appropriate that off-peak prices for winter electricity charged to customers be higher than off-peak summer prices. If the Commission adopts Ms. Andreasen's recommendation for lowered winter off-peak prices, it will be necessary to increase some other rate element, e.g. winter on-peak prices, to meet revenue requirements targets and would not be reflective of costs.

Q. STAFF WITNESS ANDREASEN RECOMMENDED CLARIFICATIONS TO SCHEDULE 3 LANGUAGE. DO YOU AGREE WITH HER RECOMMENDATIONS?

A. Yes, I do. Assuming the Commission approves Schedule 3 as modified, we will include Staff's changes in our tariff compliance filing at the conclusion of the case.

Q. DO YOU HAVE CONCERNS REGARDING THE SURREBUTTAL TESTIMONY OF AECC WITNESS HIGGINS AS IT PERTAINS TO THE ALLOCATION OF TRANSMISSION REVENUE REQUIREMENTS?

A. Yes. I would like to clarify a few aspects of the transmission element in our retail rates. First, the current "across the board" energy-based charge is consistent with the rate designs that were part of the Settlement Agreement that was incorporated in Decision No. 67744. We made no changes to that method in this case, i.e. the transmission element costs were allocated based on energy. Second, transmission costs are incurred by APS for retail sales based on charges found in the Open Access Transmission Tariff ("OATT"). The costs are not the result of any allocation method in a retail rate case. Under the OATT, each service schedule has a list of charges that are applicable to retail classes of service based on usage. For example, for residential service, the OATT charges are billed to APS or an energy service provider based on energy. OATT charges for general service customers without demand meters are also based on energy. The OATT charges for customers with demand meters are based on the customers' billing demands each month. Therefore "allocation" of OATT charges by applying a demand allocator, such as the 4CP allocator, does not reflect an accurate representation of how the costs are incurred to provide transmission service and is therefore inappropriate.

Q. WOULD YOU DESCRIBE THE OATT CHARGES?

A. Yes. There are six specific charges that are applied each month to the OATT services. The services include network integration transmission service, scheduling service, regulation & frequency service, spinning reserve service, operating reserve service, and energy imbalance service. Each month, a bill is developed based on the service schedule charges and the retail sales volumes as measured by energy sales or billing demand.

Q. WHAT WOULD BE THE AFFECT ON CUSTOMERS' BILLS IF THE

APS RETAIL TARIFF WAS MODIFIED SO THAT THE TRANSMISSION CHARGES REFLECTED THE CLASS OATT CHARGES?

A. For residential customers, it would increase bills by an average of approximately $0.50 per month. Bills for general service customers would decrease on average, but the impact would be dependent on each customer's load factor. In our rate case filing, we have proposed that the Settlement Agreement rate of $0.00476 per kWh be continued. However, I have no objection to converting the revenue requirements generated by the $0.00476/kWh charge to a capacity charge equivalent for customers receiving service under Rate Schedule E-34 and Rate Schedule E-35. These are the rate schedules that are applicable to customers with loads over three megawatts. I do not recommend that the demand charge method be used for general service customers with loads under three megawatts.

Q. PLEASE EXPLAIN WHY YOU DO NOT RECOMMEND CHANGING THE CHARGE FOR GENERAL SERVICE CUSTOMERS UNDER THREE MEGAWATTS.

A. Almost all general service customers under three megawatts are served under Rate Schedule E-32. As I noted in my Rebuttal Testimony, Rate Schedule E-32 serves a very diverse group of customers with wide load factor disparities. Shifting to a capacity charge would adversely impact lower load factor customers. I propose that the current rate design be continued until a future rate case when separating Rate Schedule E-32 into a group of size-based schedules is evaluated as recommended by Ms. Andreasen.

Q. WHAT IS YOUR POSITION ABOUT HAVING A DEMAND-BASED CHARGE EXCEPTION FOR PARTIAL REQUIREMENTS CUSTOMERS?

A. I am opposed to the recommendation that there be a demand-based charge exception for partial requirements customers if the Commission adopted AECC's

recommendations regarding transmission cost recovery. Partial requirements customers require adequate "wire" capacity for stand-by and other services and, under the OATT, APS would pay for transmission service based on the partial requirements customer's demand. Therefore, the retail rate should also be demand based, if the transmission service for full requirements customers is demand based.

III. Conclusion

Q. DO YOU HAVE ANY OTHER COMMENTS?

A. Yes. In his rebuttal testimony, Staff Witness Jerry Anderson discusses Demand Side Management ("DSM") Performance Incentives and DSM lost revenue adjustments and describes them as duplicative. I disagree with that statement. DSM Performance Incentives are designed to encourage DSM programs. Lost revenue adjustments are designed to recognize that the utility will have fixed costs that must still be recovered over a reduced sales volume. These are very distinct concepts.

Q. DOES THIS CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes, it does.