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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

Arizona Corporation Commission

DOCKETED

DEC 19 2008

MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

DOCKETED BY 

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

Docket No. E-01345A-08-0172

**NOTICE OF FILING DIRECT
TESTIMONY (REVENUE
REQUIREMENT) AND
ATTACHMENTS OF KEVIN C.
HIGGINS ON BEHALF OF
FREEPORT-MCMORAN
COPPER & GOLD INC. AND
ARIZONANS FOR ELECTRIC
CHOICE AND COMPETITION**

Freeport-McMoRan Copper & Gold Inc. and Arizonans for Electric Choice and
Competition (collectively "AECC"), hereby submit the Direct Testimony (Revenue
Requirement) and Attachments of Kevin C. Higgins on behalf of AECC in the above
captioned Docket.

RESPECTFULLY SUBMITTED this 19th day of December 2008.

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1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2
3 In the Matter of the Application of Arizona)
4 Public Service Company for a Hearing to)
5 Determine the Fair Value of the Utility)
6 Property of the Company for Ratemaking)
7 Purposes, to Fix a Just and Reasonable)
8 Rate of Return Thereon, to Approve Rate)
9 Schedules Designed to Develop Such Return)

Docket No. E-01345A-08-0172

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14 **Direct Testimony of Kevin C. Higgins**

15
16 **on behalf of**

17 **Freeport-McMoRan Copper & Gold Inc. and**

18 **Arizonans for Electric Choice & Competition**

19
20
21 **Revenue Requirement**

22
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25
26 **December 19, 2008**

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KCH-8.....AECC Adjustment for Sales Growth
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1 University of Utah and Westminster College, where I taught undergraduate and
2 graduate courses in economics. I joined Energy Strategies in 1995, where I assist
3 private and public sector clients in the areas of energy-related economic and
4 policy analysis, including evaluation of electric and gas utility rate matters.

5 Prior to joining Energy Strategies, I held policy positions in state and local
6 government. From 1983 to 1990, I was economist, then assistant director, for the
7 Utah Energy Office, where I helped develop and implement state energy policy.
8 From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County
9 Commission, where I was responsible for development and implementation of a
10 broad spectrum of public policy at the local government level.

11 **Q. Have you testified before this Commission in other dockets?**

12 A. Yes. I have testified in a number of proceedings before this Commission,
13 including the generic proceeding on retail electric competition (1998),² the
14 hearings on the Arizona Public Service Company (“APS”) 1999 Settlement
15 Agreement (1999),³ the hearings on the Tucson Electric Power (“TEP”) 1999
16 Settlement Agreement (1999),⁴ the AEPCO transition charge hearings (1999),⁵
17 the Commission’s Track A proceeding (2002),⁶ the APS adjustment mechanism
18 proceeding (2003),⁷ the Arizona ISA proceeding (2003),⁸ the APS 2004 rate case
19 (2004),⁹ the Trico rate case (2005),¹⁰ the TEP rate review (2005),¹¹ the APS

² Docket No. RE-00000C-94-0165.

³ Docket Nos. RE-00000C-94-0165, E-01345A-98-0471, and E-01345A-98-0473.

⁴ Docket Nos. RE-00000C-94-0165, E-01933A-97-0772, and E-01933A-97-0773.

⁵ Docket No. E-01773A-98-0470.

⁶ Docket Nos. E-00000A-02-0051; E-01345A-01-0822; E-00000A-01-0630; E-01933A-02-0069; E-01933A-98-0471.

⁷ Docket No. E-01345A-02-0403.

⁸ Docket No. E-00000A-01-0630.

⁹ Docket No. E-01345A-03-0437.

1 interim rate proceeding (2006),¹² the APS 2006 rate case (2006),¹³ TEP's request
2 to amend Decision No. 62103 (2007),¹⁴ and the TEP rate case (2008).¹⁵

3 **Q. Have you testified before utility regulatory commissions in other states?**

4 A. Yes. I have testified in over ninety other proceedings on the subjects of
5 utility rates and regulatory policy before state utility regulators in Alaska,
6 Arkansas, Colorado, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky,
7 Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New York,
8 Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Utah, Virginia,
9 Washington, West Virginia, and Wyoming. I have also participated in various
10 Pricing Processes conducted by the Salt River Project Board and have filed
11 affidavits in proceedings at the Federal Energy Regulatory Commission.

12 A more detailed description of my qualifications is contained in
13 Attachment KCH-1, attached to this testimony.

14
15 **Overview and Conclusions**

16 **Q. What is the purpose of your testimony in this phase of the proceeding?**

17 A. My testimony addresses APS's request for a base rate increase of \$448.2
18 million, which includes an increase of \$183.9 million in base fuel cost, as
19 proposed in the Company's Amended Application filed June 2, 2008. In my
20 testimony, I recommend adjustments to the Company's proposal that I believe are
21 necessary to ensure results that are just and reasonable.

¹⁰ Docket No. E-01461A-04-0607.

¹¹ Docket No. E-01933A-04-0408.

¹² Docket No. E-01345A-06-0009.

¹³ Docket No. E-01345A-05-0816.

1 Relative to the wide scope of this general rate proceeding, my
2 recommended adjustments are concentrated on a limited number of issues.
3 Absence of comment on my part regarding a particular revenue issue does not
4 signify support (or opposition) toward the Company's filing with respect to the
5 non-discussed issue.

6 **Q. What are the primary conclusions and recommendations presented in your**
7 **testimony?**

8 A. (1) I recommend that APS's proposed attrition adjustment be rejected. In
9 my opinion, APS's use of a Calendar Year 2010 timeframe for calculating the
10 attrition adjustment is too speculative for setting rates in this proceeding. On a
11 standalone basis, this adjustment would reduce the Company's proposed increase
12 in base rates by \$79.3 million.

13 (2) APS makes pro-forma adjustments that include a full year of
14 depreciation expense for discrete investments at Palo Verde, Cholla, and Yucca
15 that occurred in 2008 however, APS does not recognize any associated
16 accumulated depreciation for these adjustments in calculating rate base. This
17 overstates cost to customers. Therefore, I recommend adjusting rate base for the
18 amount of the increase in accumulated depreciation. This adjustment would
19 reduce the Company's proposed increase in base rates by \$0.8 million.

20 (3) In my opinion, the most appropriate timeframe for consideration of
21 APS's rate base is average-of-year 2009. This would exclude proposed rate base
22 additions that are scheduled to occur after December 31 of that year. Using APS's

¹⁴ Docket No. E-01933A-05-0650.

¹⁵ Docket No. E-01933A-07-0402.

1 proposed rate of return, adoption of my proposed treatment of rate base, including
2 associated increases in depreciation expense, would increase APS's proposed rate
3 increase by \$54.3 million, when viewed in isolation. This increase occurs
4 because my rate base treatment recognizes 2009 plant in service that APS had
5 included in its attrition adjustment, which I am recommending be rejected. Thus,
6 my proposed treatment of 2009 rate base restores a significant portion of the cost
7 recovery that is eliminated with rejection of the attrition adjustment.

8 (4) During the interim phase of this proceeding, APS indicated that it was
9 undertaking to cut capital costs by \$500 million over the period 2009 through
10 2011. These cuts have likely implications for APS rate base additions in 2009. I
11 recommend a tentative adjustment to account for these cutbacks that reduces
12 projected additions to plant in service for 2009 by 25 percent, exclusive of APS's
13 pro-forma additions. This adjustment reduces APS's proposed revenue increase
14 by \$17.5 million.

15 (5) I recommend setting the base fuel rate using projected 2009 fuel and
16 purchased power expense, as opposed to APS's proposal to use projected costs for
17 2010. In addition, forward price curves for natural gas and purchased power have
18 come down considerably since APS filed its case. Based on my review of
19 information provided by APS in its monthly PSA filings and in discovery, I
20 propose a tentative \$42.5 million reduction to APS's fuel and purchased power
21 expense. This tentative adjustment is based on an estimated base fuel rate of
22 3.7327¢ per kWh for 2009.

1 (6) In its pro-forma derivation of revenue requirement, APS measures
2 retail sales using end-of-period 2007 sales levels, normalized for weather.
3 Consistent with my recommendation that rate base should be measured on an
4 average-of-year 2009 basis, retail sales revenue should be measured using a
5 weather-normalized sales projection for Calendar Year 2009. I adjust APS's
6 retail sales revenue using APS's projected sales level for 2009 presented in the
7 Company's workpapers. This higher level of sales also requires an adjustment for
8 increased fuel and purchased power expense. The net effect is to reduce APS's
9 requested revenue increase by \$15.6 million.

10 **Q. Please summarize the impact of your proposed adjustments to APS's revenue**
11 **increase.**

12 A. I am recommending the following adjustments to APS's proposed revenue
13 increase (all amounts in \$ millions):

14	Deny Attrition Adjustment	\$(79.3)
15	Recognize accumulated depreciation for PV, Cholla, Yucca	\$(0.8)
16	Use 2009 average-of-year rate base	\$ 54.3
17	Cut back new plant in 2009	\$(17.5)
18	Fuel and purchased power cost reduction	\$(42.5)
19	Use 2009 retail sales, net of fuel cost	\$(15.6)
20		
21	Total	\$(101.4)

1 **Test Period**

2 **Q. What is meant by the term “test period” as used in ratemaking?**

3 A. “Test period” refers to a discrete twelve-month period that is used as the
4 basis for setting utility rates in a general rate proceeding. The test period
5 revenues, expenses, and investment levels of the utility are identified and used for
6 calculating the change in revenue required to provide the utility a reasonable
7 opportunity to earn its allowed rate of return.

8 **Q. What test period is APS using in its application?**

9 A. In my opinion, APS’s application does not provide a clear definition of its
10 test period. APS begins its analysis by presenting a Calendar Year 2007 test year
11 that sets out the Company’s twelve-month operations and investment. These
12 results are then adjusted for ratemaking purposes, which is typical in most general
13 rate proceedings. However, in most ratemaking contexts, the test period analysis
14 that results from such adjustments can be readily described with reference to a
15 discrete time period, e.g., “2007 historical Test Year with known and measureable
16 changes through 12/31/08,” or “2008 projected test period,” etc.

17 APS’s filing defies such a clear description. While the basis of the
18 Company’s filing starts with 2007 actual revenues, expenses, and investment, the
19 filing incorporates various revenue, expense, and investment elements that are
20 projected for the years 2008, 2009, and 2010, but without adhering to a consistent
21 time frame for all adjustments. The issue is highlighted in Table KCH-1, below,
22 which identifies the time period applicable to various APS proposed adjustments:

1 **Table KCH-1**

2 **Time Frame for Various APS-Proposed Adjustments**

3

4 <u>Adjustment</u>	5 <u>Time Frame for Valuation</u>	6 <u>Reference</u>
7 Rate base	8 New plant through 9/30/09	9 Kearns, pp. 23-30
10 Employee count	11 March 2008 level	12 LaBenz, p. 20
13 Wages – non-union	14 March 2008 level	15 LaBenz, p. 20
16 Wages – union	17 March 2009 projection	18 LaBenz, p. 20
19 Employee benefits	20 Calendar Year 2008	21 LaBenz, p. 21
22 Property taxes	23 2009 rates on 12/31/07 values	24 LaBenz, p. 23
25 Fuel expense	26 Calendar Year 2010	27 Ewen, p. 21
28 Retail sales	29 December 2007 sales level	Ewen workpapers
Attrition	Through December 2010	Kearns, pp. 20, 31

As noted in the table above, APS's filing includes a requested adjustment for "attrition," through which APS seeks to recover in base rates the revenue deficiency the Company forecasts it will otherwise incur in 2010.

18 **Q. What is your assessment of APS's approach to test period?**

19 A. In my opinion, the multiple time frames applied to APS's test period analysis yields an analytical patchwork that is problematic for setting rates. This approach does not produce a consistent set of data applicable to a well-defined twelve-month test period, resulting in a host of mismatches between revenue, expenses, and rate base.

Further, it appears to me that with its proposed attrition adjustment, APS is actually seeking to set rates based on the equivalent of a Calendar Year 2010 projected test period. This intent is apparent in the testimony of APS witness Daniel A. Kearns, who states that "by measuring the attrition adjustment through the 2010 timeframe, the Company proposes to set revenue levels for calendar year 2010 that match its 2010 costs."¹⁶ My understanding, however, is that the

¹⁶ Supplemental direct testimony of Daniel A. Kearns, p. 20, lines 8-9.

1 Company is required by R14-2-103(p) to present its application using an
2 historical period. APS appears to have responded to this requirement by applying
3 selected pro-forma adjustments of varying vintages to the Calendar Year 2007 test
4 year, but then caps off its filing with a top-down attrition adjustment that plays the
5 role of a “catch all” for all other revenue, expense, and investment items through
6 the end of 2010.

7 **Q. Do you support the use of a test period that is equivalent to Calendar Year**
8 **2010 for setting rates in this proceeding?**

9 A. No, I do not. In my opinion, the use of a Calendar Year 2010 timeframe is
10 too speculative for setting rates in this proceeding. In general, if a projected
11 period is used to set rates, I believe a period relatively close in time to the filing
12 date is preferred to a period set more aggressively into the future. This preference
13 is even more pronounced in the current economic climate of recession and the
14 significant uncertainty about its depth and duration, as the current economic
15 conditions impair the ability of parties to accurately predict prices and the level of
16 economic activity in Arizona over the next several future years. As indicated in
17 the interim phase of this proceeding, even APS’s own investment plans are
18 subject to considerable change. Any errors in a 2009 forecast will be built into the
19 base from which a 2010 projection is made. Additional errors in the subsequent
20 year’s projections can have a compounding effect.

21 **Q. How will your opinion on this point affect the recommendations you make in**
22 **your testimony?**

1 A. In the recommendations I offer below, I propose to exclude revenue,
2 expense, and rate base items that are projected to occur after December 31, 2009.
3 Even the use of 2009 projections is subject to considerable uncertainty. Yet, in
4 consideration of the filing and hearing schedule for this proceeding, I believe that
5 the end of 2009 represents a reasonable cut-off point for inclusion of revenue,
6 expense, and rate base values for use in setting APS's rates in this case. In my
7 opinion, this timeframe best balances the need to provide APS a reasonable
8 opportunity to recover its costs, including return, while setting rates for customers
9 that are just and reasonable.
10

11 **Attrition Adjustment**

12 **Q. Please describe briefly APS's proposed attrition adjustment.**

13 A. The Company's proposal for an attrition adjustment is presented in the
14 supplemental direct testimony of Mr. Kearns. In Attachments DAK-1 and DAK-
15 2, Mr. Kearns presents his projections of the major components of revenue and
16 expense through 2010, along with his projection of APS rate base through that
17 time. Mr. Kearns uses these projections to forecast a revenue deficiency that he
18 predicts would occur in 2010, even if the Company received rate relief
19 corresponding to all of its pro forma adjustments to the 2007 test year. The
20 additional revenue needed to eliminate this projected 2010 deficiency constitutes
21 the Company's requested attrition adjustment, which Mr. Kearns calculates to be
22 \$79.3 million. APS incorporates the attrition adjustment into its proposed base
23 rate increase of \$448.2 million.

1 **Q. What is your assessment of APS's proposed attrition adjustment?**

2 A. I recommend that the attrition adjustment be rejected. As I discussed
3 above, I believe the use of a Calendar Year 2010 test period is not appropriate for
4 setting rates in this proceeding. Further, the proposed attrition adjustment is based
5 on a high-level, "top-down" analysis of the Company's projected operating
6 income, without the detailed support normally associated with ratemaking
7 adjustments. As such, the analysis does not lend itself to the scrutiny necessary
8 for setting rates.

9 **Q. Do you have any other concerns with the proposed attrition adjustment?**

10 A. Yes. The attrition adjustment erroneously reverses the regulatory
11 disallowance of \$10 million for West Phoenix Unit 4 required in previous
12 Commission decisions. The error occurs despite APS's recognition of the West
13 Phoenix regulatory disallowance in its pro-forma adjustments and is a byproduct
14 of the top-down nature of the attrition adjustment calculation..

15 The error appears in the attrition adjustment derivation shown in APS
16 Attachment DAK-2. Line 10 of the attachment identifies the major changes in
17 APS rate base projected for the three-year period December 31, 2007 through
18 December 31, 2010, which totals \$1.044 billion. Line 11 of the attachment
19 subtracts from this total the rate base changes covered by APS's other pro forma
20 adjustments, which total \$418 million. This latter figure is comprised of \$428
21 million in new plant additions *minus* \$10 million for the West Phoenix Unit 4
22 regulatory disallowance. Line 12 is depicted as the "remaining major changes in
23 ACC rate base not covered in rates" and is the difference between line 10 (\$1.044

1 billion) and line 11 (\$418 million), or \$626 million. The attrition adjustment then
2 attempts to recover costs associated with this \$626 million in projected rate base.
3 The problem is that the amount being subtracted (line 11) has been reduced by the
4 amount of the West Phoenix disallowance (\$10 million); thus, when line 11 is
5 subtracted from line 10, the resulting value of \$626 million is too high by this \$10
6 million, effectively reversing the West Phoenix regulatory disallowance. If the
7 attrition adjustment is accepted by the Commission, then the rate base component
8 should be reduced by the \$10 million amount of the West Phoenix regulatory
9 disallowance; that is, the remaining addition to rate base would be \$616 million,
10 not \$626 million.

11 **Q. Your opposition to the attrition adjustment derives, in part, from its**
12 **inclusion of 2010 cost elements. Doesn't the attrition adjustment also include**
13 **cost elements from 2009?**

14 A. Yes, it does. I will address the portion of the attrition adjustment that is
15 tied to increases in 2009 rate base in the next section of my testimony.

16 **Q. What is the impact of your recommendation on the Company's proposed**
17 **rate increase?**

18 A. On a standalone basis, adoption of my recommendation to reject the
19 attrition adjustment would reduce the Company's proposed increase in base rates
20 by \$79.3 million, which is shown in Attachment KCH-2. However, this impact is
21 prior to consideration of 2009 rate base adjustments, which I discuss below.

1 **Adjustments to Rate Base and Associated Depreciation Expense**

2 **Q. What adjustments to its 2007 rate base does APS propose?**

3 A. APS proposes adjustments to its end-of-2007 rate base for: (1)
4 replacement of the Palo Verde Unit 3 Steam Generator; (2) addition of Cholla
5 Generating Station Environmental Capital Projects; (3) addition of Yucca Units 5
6 and 6; (4) 1,201 various plant additions projected to occur between January 1,
7 2008 and September 30, 2009; and (5) recognition of the regulatory disallowance
8 for West Phoenix Unit 4 required in previous Commission decisions.

9 In addition, as discussed above, APS proposes the equivalent of \$626
10 million in incremental rate base through December 31, 2010 in addition to the
11 Company's pro-forma rate base adjustments. This incremental rate base forms the
12 basis of cost recovery under the Company's proposed attrition adjustment.

13 **Q. Do you have any recommended modifications to APS's proposed treatment**
14 **of rate base?**

15 A. Yes, I do. As I stated above, I believe the most appropriate timeframe for
16 consideration of APS's rate base is 2009. This would exclude proposed rate base
17 additions that are scheduled to occur after December 31 of that year. Further, the
18 rate base level should be calculated using an average-of-year (2009) basis, as
19 distinct from end-of-year. In my experience in many jurisdictions, setting rate
20 base using an average-of-year basis is the conventional practice, particularly when
21 a projected time period is used as the basis for setting rates.

22 **Q. What timeframe does APS use for its proposed rate base adjustments?**

1 A. As I discussed in the "Test Period" section of my testimony, APS does not
2 adhere to a consistent timeframe. APS values its major pro-forma rate base
3 additions for Palo Verde, Cholla, and Yucca (listed above) at the full value of the
4 plant in service on the date it enters service, e.g., the replacement of the Palo
5 Verde Unit 3 Steam Generator on January 19, 2008 is included in rate base at its
6 full original cost on that date. In addition, APS proposes to recover a full year's
7 worth of depreciation expense for each of the items the Company brings into rate
8 base.

9 **Q. Is there a problem with this?**

10 A. Yes, there is a consistency problem. I do not object to plant that is in
11 service in January 2008, such as the new Palo Verde Unit 3 Steam Generator,
12 recovering a full year's worth of depreciation expense based if Calendar Year
13 2009 is used to determine rate base. But at the same time, plant in service for
14 which the utility recovers a full year's worth of depreciation expense should not
15 be in rate base for the full amount of its original cost, as its associated rate base
16 should be reduced by the amount of accumulated depreciation corresponding to
17 its in-service date and the test period being utilized. APS proposes to recover a
18 full year's worth of depreciation expense for each of its pro-forma increases to
19 plant in service, but provides no corresponding offsets to rate base for the amount
20 of this depreciation. This approach overstates costs to customers.

21 **Q. What level of depreciation expense should be applied to plant that comes on**
22 **line after the close of APS's historical test period of December 31, 2007?**

1 A. Consistent with my recommendation that rate base should be measured on
2 an average-of-year 2009 basis, depreciation expense for pro-forma rate base
3 adjustments should correspond to the depreciation expense that plant in service
4 would incur for Calendar Year 2009. This means that plant in service on
5 December 31, 2008 would incur a full year's worth of depreciation expense and
6 the depreciation expense for plant coming into service during 2009 should be pro-
7 rated to correspond to the portion of the year in which the plant is expected to be
8 in service.

9 **Q. What are the implications for accumulated depreciation as it applies to pro-**
10 **forma rate base adjustments?**

11 A. Consistent with my recommendation that rate base should be measured on
12 an average-of-year 2009 basis, accumulated depreciation for pro-forma rate base
13 adjustments should reflect average of year 2009 levels.

14 **Q. What adjustments are you proposing to APS's rate base?**

15 A. I modify the four APS rate base additions listed above (Palo Verde Unit 3,
16 Cholla, Yucca Units 5 and 6, and miscellaneous post-test-year plant additions) to
17 correspond to average of year 2009 values. These adjustments are presented in
18 Attachments KCH-3, KCH-4, KCH-5, and KCH-6, respectively.

19 **Q. How do you treat APS's rate base additions that are projected to occur in**
20 **2008 and 2009 but are excluded from APS's pro-forma adjustments?**

21 A. These projected rate base additions are excluded from APS's pro-forma
22 adjustments, but are included as part of the Company's proposed attrition
23 adjustment. I propose to treat these projected rate base additions in two steps. In

1 the first step, I accept the full amount of APS's projection of new plant in service
2 and adjust it to an average-of-year 2009 value. This calculation is also presented
3 in Attachment KCH-6, page 1 (in columns referencing APS Attrition
4 Adjustment). In the second step, I adjust the APS projection of new plant in
5 service for 2009 downward in anticipation of revisions to APS's capital
6 investment plans, which were discussed during the interim phase of this
7 proceeding. I then adjust this amount to an average-of-year 2009 value. This
8 adjustment is also presented in Attachment KCH-6, page 1.

9 The income adjustments associated with my proposed treatment of rate
10 base are presented in Attachment KCH-6, page 2.

11 **Q. Please explain further the justification for adjusting downward the APS**
12 **projection of new plant in service for 2009 downward.**

13 A. During the interim phase of this proceeding, APS indicated that it was
14 undertaking to cut capital costs by \$500 million over the period 2009 through
15 2011. These cuts have likely implications for APS rate base additions in 2009. In
16 discovery, AECC asked APS to provide any revisions to its rate base projections
17 in its attrition adjustment that have been made since the filing of APS's revised
18 case. APS declined to provide any revisions in response to AECC's discovery
19 request, but indicated that the Company would update its forecasted changes to
20 jurisdictional plant when it filed its rebuttal testimony.¹⁷

21 Since APS apparently does not intend to disclose the impact of its capital
22 expenditure cutbacks on projected 2009 rate base until it files its rebuttal

¹⁷ APS Response to AECC 3.6.b.

1 testimony, I have assumed that the cutbacks reduce projected additions to plant in
2 service for 2009 by 25 percent, exclusive of APS's pro-forma additions (i.e., I
3 reduce only the portion of 2009 rate base additions that are associated with APS's
4 attrition adjustment). I consider this adjustment to be tentative pending APS's
5 update of its projected rate base additions for 2009.

6 **Q. What is the cumulative effect of your recommended adjustments to rate base**
7 **relative to the pro-forma rate base proposed by APS?**

8 A. This effect of my adjustments to rate base is shown in Attachment KCH-
9 9, which summarizes the results of each of my adjustments. APS is proposing a
10 pro-forma ACC rate base of \$5.360 billion. My proposal for an average-of-year
11 2009 rate base, with adjustments, results in a rate base of \$5.444 billion.

12 **Q. What is the estimated impact of your recommended treatment of rate base**
13 **on the Company's proposed rate increase?**

14 A. Using APS's proposed rate of return, adoption of my proposed treatment
15 of rate base, including associated increases in depreciation expense, would
16 increase APS's revenue requirement by \$36.8 million, when viewed in isolation.
17 (This is shown in Attachment KCH-6, page 1.) This increase would be \$17.5
18 million higher without my assumed cutback in new plant additions in 2009. The
19 increase that occurs from this adjustment is attributable to the fact that my rate
20 base treatment recognizes 2009 plant in service that APS had included in its
21 attrition adjustment, which I am recommending be rejected. That is, my proposed
22 treatment of 2009 rate base restores a significant portion of the cost recovery that
23 is eliminated with rejection of the attrition adjustment. When viewed in tandem

1 with my recommendation to reject the attrition adjustment, it has a net impact of
2 reducing APS's proposed base rate increase by \$42.5 million.

3 I note also that adoption of my proposed treatment of 2009 rate base
4 should be accompanied by recognition of projected 2009 sales levels in
5 determining revenue requirement, which I discuss below. As 2009 rate base
6 would be used for providing service to 2009 load, it would not be reasonable to
7 pay for 2009 rate base using end-of-year 2007 sales levels.

8
9 **Fuel and Purchased Power**

10 **Q. What has APS proposed with respect to fuel and purchased power expense?**

11 A. APS's proposal for fuel and purchased power expense is presented in the
12 supplemental direct testimony of Peter M. Ewen. APS is proposing to increase the
13 base fuel rate from 3.25¢ per kWh established in Docket No. 69633 to 3.88¢ per
14 kWh, based on the Company's projection for 2010 fuel costs. This increase
15 constitutes \$183.9 million of the Company's proposed \$448.2 million base rate
16 increase.

17 **Q. What is your assessment of APS's proposed treatment of fuel and purchased
18 power expense?**

19 A. Consistent with my test period discussion, I recommend setting the base
20 fuel rate using projected 2009 fuel and purchased power expense, as opposed to
21 APS's proposal to use projected costs for 2010. Further, forward price curves for
22 natural gas and purchased power have come down considerably since APS filed

1 its case. Therefore, I recommend that APS's fuel and purchased power expense be
2 recalculated using updated pricing information applied to 2009.

3 **Q. Will APS be filing any updated estimates of base fuel cost for 2009?**

4 A. Yes. APS will be filing its 2009 base fuel cost projection as part of its
5 annual PSA filing. However, the Company's filing has not been made at the time
6 of the filing of my direct testimony.

7 **Q. Do you have a tentative adjustment to APS's fuel and purchased power
8 expense pending further information being made available?**

9 A. Yes. Based on my review of information provided by APS in its monthly
10 PSA filings and in discovery, I propose a tentative \$42.5 million reduction to
11 APS's fuel and purchased power expense. This tentative adjustment is based on
12 an estimated base fuel rate of 3.7327¢ per kWh for 2009. I derived this rate using
13 a base fuel rate of 3.7667¢ per kWh from APS's PSA report filed November 25,
14 2008,¹⁸ adjusted downward by \$10 million based on other information provided
15 by APS in discovery.¹⁹ I anticipate that the base fuel rate is likely to decline
16 further due to more recent reductions in gas and power prices.

17 **Q. By what means might you update your proposed tentative adjustment?**

18 A. APS has stated that the Company intends to update its base fuel rate and
19 fuel and purchased power expense in its rebuttal testimony. I may update my
20 tentative adjustment in my surrebuttal testimony after review of APS's rebuttal
21 filing and additional relevant information.

¹⁸ Also summarized in APS Supplemental Response to Staff 25.10 (which contains a minor typo in the final line).

¹⁹ APS Response to Staff 17.6.

1 **Q. What is the estimated impact of your tentative adjustment to fuel and**
2 **purchased power expense on the Company's proposed rate increase?**

3 A. The estimated impact is a \$42.5 million reduction, which is shown in
4 Attachment KCH-7.

5
6 **Revenues from Sales**

7 **Q, How has APS treated revenues from retail sales in its calculation of revenue**
8 **requirement?**

9 A. In its pro-forma derivation of revenue requirement, APS measures retail
10 sales using end-of-period 2007 sales levels, normalized for weather. At the same
11 time, the Company's attrition adjustment incorporates a projection of increased
12 sales levels for 2008 through 2010.

13 **Q. What timeframe do you recommend for measuring retail sales revenue in**
14 **this proceeding?**

15 A. Consistent with my recommendation that rate base should be measured on
16 an average-of-year 2009 basis, retail sales revenue should be measured using a
17 weather-normalized sales projection for Calendar Year 2009. If rates are set to
18 recover costs associated with 2009 rate base, it is essential that cost recovery be
19 spread across the projected 2009 sales that will be served by this rate base. It
20 would not be reasonable to pay for 2009 rate base using end-of-year 2007 sales
21 levels.

22 In Attachment KCH-8, I adjust APS's retail sales revenue using APS's
23 projected sales level for 2009 presented in Mr. Ewen's workpapers. This higher

1 level of sales also requires an adjustment for increased fuel and purchased power
2 expense, which is also shown on Attachment KCH-8. The net effect is to reduce
3 APS's requested revenue increase by \$15.6 million.

4 **Q. Does this conclude your direct testimony?**

5 **A. Yes, it does.**

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Vitae

PROFESSIONAL EXPERIENCE

Principal, Energy Strategies, L.L.C., Salt Lake City, Utah, January 2000 to present. Responsible for energy-related economic and policy analysis, regulatory intervention, and strategic negotiation on behalf of industrial, commercial, and public sector interests. Previously Senior Associate, February 1995 to December 1999.

Adjunct Instructor in Economics, Westminster College, Salt Lake City, Utah, September 1981 to May 1982; September 1987 to May 1995. Taught in the economics and M.B.A. programs. Awarded Adjunct Professor of the Year, Gore School of Business, 1990-91.

Chief of Staff to the Chairman, Salt Lake County Board of Commissioners, Salt Lake City, Utah, January 1991 to January 1995. Senior executive responsibility for all matters of county government, including formulation and execution of public policy, delivery of approximately 140 government services, budget adoption and fiscal management (over \$300 million), strategic planning, coordination with elected officials, and communication with consultants and media.

Assistant Director, Utah Energy Office, Utah Department of Natural Resources, Salt Lake City, Utah, August 1985 to January 1991. Directed the agency's resource development section, which provided energy policy analysis to the Governor, implemented state energy development policy, coordinated state energy data collection and dissemination, and managed energy technology demonstration programs. Position responsibilities included policy formulation and implementation, design and administration of energy technology demonstration programs, strategic management of the agency's interventions before the Utah Public Service Commission, budget preparation, and staff development. Supervised a staff of economists, engineers, and policy analysts, and served as lead economist on selected projects.

Utility Economist, Utah Energy Office, January 1985 to August 1985. Provided policy and economic analysis pertaining to energy conservation and resource development, with an emphasis on utility issues. Testified before the state Public Service Commission as an expert witness in cases related to the above.

Acting Assistant Director, Utah Energy Office, June 1984 to January 1985. Same responsibilities as Assistant Director identified above.

Research Economist, Utah Energy Office, October 1983 to June 1984. Provided economic analysis pertaining to renewable energy resource development and utility issues. Experience includes preparation of testimony, development of strategy, and appearance as an expert witness for the Energy Office before the Utah PSC.

Operations Research Assistant, Corporate Modeling and Operations Research Department, Utah Power and Light Company, Salt Lake City, Utah, May 1983 to September 1983. Primary area of responsibility: designing and conducting energy load forecasts.

Instructor in Economics, University of Utah, Salt Lake City, Utah, January 1982 to April 1983. Taught intermediate microeconomics, principles of macroeconomics, and economics as a social science.

Teacher, Vernon-Verona-Sherrill School District, Verona, New York, September 1976 to June 1978.

EDUCATION

Ph.D. Candidate, Economics, University of Utah (coursework and field exams completed, 1981).

Fields of Specialization: Public Finance, Urban and Regional Economics, Economic Development, International Economics, History of Economic Doctrines.

Bachelor of Science, Education, State University of New York at Plattsburgh, 1976 (cum laude).

Danish International Studies Program, University of Copenhagen, 1975.

SCHOLARSHIPS AND FELLOWSHIPS

University Research Fellow, University of Utah, Salt Lake City, Utah 1982 to 1983.

Research Fellow, Institute of Human Resources Management, University of Utah, 1980 to 1982.

Teaching Fellow, Economics Department, University of Utah, 1978 to 1980.

New York State Regents Scholar, 1972 to 1976.

EXPERT TESTIMONY

“Application of Oncor Electric Delivery Company LLC for Authority to Change Rates,” Public Utility Commission of **Texas**, SOAH Docket No. 473-08-3681, PUC Docket No. 35717. Direct testimony submitted November 26, 2008.

“In the Matter of the Application of Columbus Southern Power Company for Approval of Its Electric Security Plan; An Amendment to Its Corporate Separation Plan; and the Sale of Certain Generating Assets”, Public Utilities Commission of **Ohio**, Case No. 08-917-EL-SSO; “In the Matter of the Application of Ohio Power Company for Approval of Its Electric Security Plan; and an Amendment to Its Corporate Separation Plan,” Case No. 08-918-EL-SSO. Direct testimony submitted October 31, 2008. Cross examined November 25, 2008.

“Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Base Rates,” **Kentucky** Public Service Commission, Case No. 2008-00252. Direct testimony submitted October 28, 2008.

“Application of Kentucky Utilities Company for an Adjustment of Base Rates,” **Kentucky** Public Service Commission, Case No. 2008-00251. Direct testimony submitted October 28, 2008.

“In the Matter of the Application of Idaho Power Company for Authority to Increase its Rates and Charges for Electric Service,” **Idaho** Public Utilities Commission, Case No. IPC-E-08-10. Direct testimony submitted October 24, 2008. Rebuttal testimony submitted December 3, 2008.

“In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 08-035-38. Direct testimony submitted October 7, 2008 (test period). Cross examined October 28, 2008 (test period).

“In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Establish a Standard Service Offer Pursuant to R.C. § 4928.143 in the Form of an Electric Security Plan,” Public Utility Commission of **Ohio**, Case No. 08-935-EL-SSO. Direct testimony submitted September 29, 2008. Deposed October 13, 2008. Cross examined October 21, 2008.

“In the Matter of the Application of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes In Their Charges for Electric Service,” State Corporation Commission of **Kansas**, Docket No. 08-WSEE-1041-RTS. Direct testimony submitted September 29, 2008. Cross Answer testimony submitted October 8, 2008.

“In the Matter of Appalachian Power Company’s Application for Increase in Electric Rates,” **Virginia** State Corporation Commission, Case No. PUE-2008-00046. Direct testimony submitted September 26, 2008.

“In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Approval of a Market Rate Offer to Conduct a Competitive Bidding Process for Standard Service Offer Electric Generation Supply, Accounting Modifications with Reconciliation Mechanism and Tariffs for Generation Service,” Public Utility Commission of **Ohio**, Case No. 08-936-EL-SSO. Direct testimony submitted September 9, 2008. Deposed September 16, 2008.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, to Approve Rate Schedules Designed to Develop Such Return,” **Arizona** Corporation Commission, Docket No. E-01345A-08-0172. Direct testimony submitted August 29, 2008 (interim rates). Cross examined September 16, 2008 (interim rates).

“Verified Joint Petition of Duke Energy Indiana, Inc., Indianapolis Power & Light Company, Northern Indiana Public Service Company and Vectren Energy Delivery of Indiana, Inc. for Approval, if and to the Extent Required, of Certain Changes in Operations That Are Likely To Result from the Midwest Independent System Operator, Inc.’s Implementation of Revisions to Its Open Access Transmission and Energy Markets Tariff to Establish a Co-Optimized, Competitive Market for Energy and Ancillary Services Market; and for Timely Recovery of Costs Associated with Joint Petitioners’ Participation in Such Ancillary Services Market,” **Indiana** Utility Regulatory Commission, Cause No. 43426. Direct testimony submitted August 6, 2008. Direct testimony in opposition to Settlement Agreement submitted November 12, 2008.

“In The Matter of the Application of The Detroit Edison Company for Authority to Increase Its Rates, Amend Its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority,” **Michigan** Public Service Commission, Case No. U-15244. Direct testimony submitted July 15, 2008. Rebuttal testimony submitted August 8, 2008.

“Portland General Electric General Rate Case Filing,” Public Utility Commission of **Oregon**, Docket No. UE-197. Direct testimony submitted July 9, 2008. Surrebuttal testimony submitted September 15, 2008.

“In the Matter of PacifiCorp, dba Pacific Power, 2009 Transition Adjustment Mechanism, Schedule 200, Cost-Based Supply Service,” Public Utility Commission of **Oregon**, Docket No. UE-199. Reply testimony submitted June 23, 2008. Joint testimony in support of stipulation submitted September 4, 2008.

“2008 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-072300 and UG-072301. Response testimony submitted May 30, 2008. Cross-Answer testimony submitted July 3, 2008. Joint testimony in support of partial stipulations submitted July 3, 2008 (gas rate spread/rate design), August 12, 2008 (electric rate spread/rate design), and August 28, 2008 (revenue requirements). Cross examined September 3, 2008.

“Verified Petition of Duke Energy Indiana, Inc. Requesting the Indiana Utility Regulatory Commission to Approve an Alternative Regulatory Plan Pursuant to the Ind. Code 8-1-2.5, Et Seq., for the Offering of Energy Efficiency Conservation, Demand Response, and Demand-Side Management Programs and Associated Rate Treatment Including Incentives Pursuant to a Revised Standard Contract Rider No. 66 in Accordance with Ind. Code 8-1-2.5-1Et Seq. and 8-1-2-42(a); Authority to Defer Program Costs Associated with Its Energy Efficiency Portfolio of Programs; Authority to Implement New and Enhanced Energy Efficiency Programs in Its Energy Efficiency Portfolio of Programs; and Approval of a Modification of the Fuel Adjustment Clause Earnings and Expense Tests,” **Indiana** Utility Regulatory Commission, Cause No. 43374. Direct testimony submitted May 21, 2008.

“Cinergy Corp., Duke Energy Ohio, Inc., Cinergy Power Investments, Inc., Generating Facilities LLCs,” **Federal Energy Regulatory Commission**, Docket No. EC-08-78-000. Affidavit filed May 14, 2008.

“Application of Entergy Gulf States, Inc. for Authority to Change Rates and to Reconcile Fuel Costs, Public Utility Commission of **Texas**, Docket No. 34800 [SOAH Docket No. 473-08-0334]. Direct testimony submitted April 11, 2008. Testimony withdrawn pursuant to stipulation.

“Central Illinois Light Company d/b/a AmerenCILCO Proposed General Increase in Electric Delivery Service Rates, Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Electric Delivery Service Rates, Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Electric Delivery Service Rates, Central Illinois Light Company d/b/a AmerenCILCO, Proposed General Increase in Gas Delivery Service Rates, Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates, Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Gas Delivery Service Rates,” **Illinois** Commerce Commission, Docket Nos. 07-0585, 07-0586, 07-0587, 07-0588, 07-0589, 07-0590. Direct testimony submitted March 14, 2008. Rebuttal testimony submitted April 8, 2008.

“In the Matter of the Application of Public Service Company of Colorado for Authority to Implement an Enhanced Demand Side Management Cost Adjustment Mechanism to Include Current Recovery and Incentives,” **Colorado** Public Utilities Commission, Docket No. 07A-420E. Answer testimony submitted March 10, 2008. Cross examined April 25, 2008.

“An Investigation of the Energy and Regulatory Issues in Section 50 of Kentucky’s 2007 Energy Act,” **Kentucky** Public Service Commission, Administrative Case No. 2007-00477. Direct testimony submitted February 29, 2008. Supplemental direct testimony submitted April 1, 2008. Cross examined April 30, 2008.

In the Matter of the Application of Tucson Electric Power Company for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of Its Operations throughout the State of Arizona, **Arizona** Corporation Commission, Docket No. E-01933A-07-0402. Direct testimony submitted February 29, 2008 (revenue requirement), March 14, 2008 (rate design), and June 12, 2008 (settlement agreement). Cross examined July 14, 2008.

“Commonwealth Edison Company Proposed General Increase in Electric Rates,” **Illinois** Commerce Commission, Docket No. 07-0566. Direct testimony submitted February 11, 2008. Rebuttal testimony submitted April 8, 2008.

“In the Matter of the Application of Questar Gas Company to File a General Rate Case,” **Utah** Public Service Commission, Docket No. 07-057-13. Direct testimony submitted January 28, 2008 (test period), March 31, 2008 (rate of return), April 21, 2008 (revenue requirement), and August 18, 2008 (cost of service, rate spread, rate design). Rebuttal testimony submitted September 22, 2008 (cost of service, rate spread, rate design). Surrebuttal testimony submitted May 12, 2008 (rate of return) and October 7, 2008 (cost of service, rate spread, rate design). Cross examined February 8, 2008 (test period), May 21, 2008 (rate of return), and October 15, 2008 (cost of service, rate spread, rate design).

“In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations, Consisting of a General Rate Increase of Approximately \$161.2 Million Per Year, and for Approval of a New Large Load Surcharge,” **Utah** Public Service Commission, Docket No. 07-035-93. Direct testimony submitted January 25, 2008 (test period), April 7, 2008 (revenue requirement), and July 21, 2008 (cost of service, rate design). Rebuttal testimony submitted September 3, 2008 (cost of service, rate design). Surrebuttal testimony submitted May 23, 2008 (revenue requirement) and September 24, 2008 (cost of service, rate design). Cross examined February 7, 2008 (test period).

“In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Increase Rates for Distribution Service, Modify Certain Accounting Practices and for Tariff Approvals,” Public Utilities Commission of **Ohio**, Case Nos. 07-551-EL-AIR, 07-552-EL-ATA, 07-553-EL-AAM, and 07-554-EL-UNC. Direct testimony submitted January 10, 2008.

“In the Matter of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming, Consisting of a General Rate Increase of Approximately \$36.1 Million per Year, and for Approval of a New Renewable Resource Mechanism and Marginal Cost Pricing Tariff,” **Wyoming** Public Service Commission, Docket No. 20000-277-ER-07. Direct testimony submitted January 7, 2008. Cross examined March 6, 2008.

“In the Matter of the Application of Idaho Power Company for Authority to Increase Its Rates and Charges for Electric Service to Electric Customers in the State of Idaho,” **Idaho** Public Utilities Commission, Case No. IPC-E-07-8. Direct testimony submitted December 10, 2007. Cross examined January 23, 2008.

“In The Matter of the Application of Consumers Energy Company for Authority to Increase Its Rates for the Generation and Distribution Of Electricity and Other Relief,” **Michigan** Public Service Commission, Case No. U-15245. Direct testimony submitted November 6, 2007. Rebuttal testimony submitted November 20, 2007.

“In the Matter of Montana-Dakota Utilities Co., Application for Authority to Establish Increased Rates for Electric Service,” **Montana** Public Service Commission, Docket No. D2007.7.79. Direct testimony submitted October 24, 2007.

“In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 334,” **New Mexico** Public Regulation Commission, Case No. 07-0077-UT. Direct testimony submitted October 22, 2007. Rebuttal testimony submitted November 19, 2007. Cross examined December 12, 2007.

“In The Matter of Georgia Power Company’s 2007 Rate Case,” **Georgia** Public Service Commission, Docket No. 25060-U. Direct testimony submitted October 22, 2007. Cross examined November 7, 2007.

“In the Matter of the Application of Rocky Mountain Power for an Accounting Order to Defer the Costs Related to the MidAmerican Energy Holdings Company Transaction,” **Utah** Public Service Commission, Docket No. 07-035-04; “In the Matter of the Application of Rocky Mountain Power, a Division of PacifiCorp, for a Deferred Accounting Order To Defer the Costs of Loans Made to Grid West, the Regional Transmission Organization,” Docket No. 06-035-163; “In the Matter of the Application of Rocky Mountain Power for an Accounting Order for Costs related to the Flooding of the Powerdale Hydro Facility,” Docket No. 07-035-14. Direct testimony submitted September 10, 2007. Surrebuttal testimony submitted October 22, 2007. Cross examined October 30, 2007.

“In the Matter of General Adjustment of Electric Rates of East Kentucky Power Cooperative, Inc.,” **Kentucky** Public Service Commission, Case No. 2006-00472. Direct testimony submitted July 6, 2007. Supplemental direct testimony submitted March 14, 2008.

“In the Matter of the Application of Sempra Energy Solutions for a Certificate of Convenience and Necessity for Competitive Retail Electric Service,” **Arizona** Corporation Commission, Docket No. E-03964A-06-0168. Direct testimony submitted July 3, 2007. Rebuttal testimony submitted January 17, 2008.

“Application of Public Service Company of Oklahoma for a Determination that Additional Electric Generating Capacity Will Be Used and Useful,” **Oklahoma** Corporation Commission, Cause No. PUD 200500516; “Application of Public Service Company of Oklahoma for a Determination that Additional Baseload Electric Generating Capacity Will Be Used and Useful,” Cause No. PUD 200600030; “In the Matter of the Application of Oklahoma Gas and Electric Company for an Order Granting Pre-Approval to Construct Red Rock Generating Facility and Authorizing a Recovery Rider,” Cause No. PUD200700012. Responsive testimony submitted May 21, 2007. Cross examined July 26, 2007.

“Application of Nevada Power Company for Authority to Increase Its Annual Revenue Requirement for General Rates Charged to All Classes of Electric Customers and for Relief Properly Related Thereto,” Public Utilities Commission of **Nevada**, Docket No. 06-11022. Direct testimony submitted March 14, 2007 (Phase III – revenue requirements) and March 19, 2007 (Phase IV – rate design). Cross examined April 10, 2007 (Phase III – revenue requirements) and April 16, 2007 (Phase IV – rate design).

“In the Matter of the Application of Entergy Arkansas, Inc. for Approval of Changes in Rates for Retail Electric Service,” **Arkansas** Public Service Commission, Docket No. 06-101-U. Direct testimony submitted February 5, 2007. Surrebuttal testimony submitted March 26, 2007.

“Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Rule 42T Application to Increase Electric Rates and Charges,” Public Service Commission of **West Virginia**, Case No. 06-0960-E-42T; “Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Information Required for Change of Depreciation Rates Pursuant to Rule 20,” Case No. 06-1426-E-D. Direct and rebuttal testimony submitted January 22, 2007.

“In the Matter of the Tariffs of Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P Increasing Electric Rates for the Services Provided to Customers in the Aquila Networks-MPS and Aquila Networks-L&P Missouri Service Areas,” **Missouri** Public Service Commission, Case No. ER-2007-0004. Direct testimony submitted January 18, 2007 (revenue requirements) and January 25, 2007 (revenue apportionment). Supplemental direct testimony submitted February 27, 2007.

“In the Matter of the Filing by Tucson Electric Power Company to Amend Decision No. 62103, **Arizona** Corporation Commission, Docket No. E-01933A-05-0650. Direct testimony submitted January 8, 2007. Surrebuttal testimony filed February 8, 2007. Cross examined March 8, 2007.

“In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company’s Missouri Service Area,” **Missouri** Public Service Commission, Case No. ER-2007-0002. Direct testimony submitted December 15, 2006 (revenue requirements) and December 29, 2006 (fuel adjustment clause/cost-of-service/rate design). Rebuttal testimony submitted February 5, 2007 (cost-of-service). Surrebuttal testimony submitted February 27, 2007. Cross examined March 21, 2007.

“In the Matter of Application of The Union Light, Heat and Power Company d/b/a Duke Energy Kentucky, Inc. for an Adjustment of Electric Rates,” **Kentucky** Public Service Commission, Case No. 2006-00172. Direct testimony submitted September 13, 2006.

“In the Matter of Appalachian Power Company’s Application for Increase in Electric Rates,” **Virginia** State Corporation Commission, Case No. PUE-2006-00065. Direct testimony submitted September 1, 2006. Cross examined December 7, 2006.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and to Amend Decision No. 67744, **Arizona** Corporation Commission,” Docket No. E-01345A-05-0816. Direct testimony submitted August 18, 2006 (revenue requirements) and September 1, 2006 (cost-of-service/rate design). Surrebuttal testimony submitted September 27, 2006. Cross examined November 7, 2006.

“Re: The Tariff Sheets Filed by Public Service Company of Colorado with Advice Letter No 1454 – Electric,” **Colorado** Public Utilities Commission, Docket No. 06S-234EG. Answer testimony submitted August 18, 2006.

“Portland General Electric General Rate Case Filing,” Public Utility Commission of **Oregon**, Docket No. UE-180. Direct testimony submitted August 9, 2006. Joint testimony regarding stipulation submitted August 22, 2006.

“2006 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-060266 and UG-060267. Response testimony submitted July 19, 2006. Joint testimony regarding stipulation submitted August 23, 2006.

“In the Matter of PacifiCorp, dba Pacific Power & Light Company, Request for a General Rate Increase in the Company’s Oregon Annual Revenues,” Public Utility Commission of **Oregon**,

Docket No. UE-179. Direct testimony submitted July 12, 2006. Joint testimony regarding stipulation submitted August 21, 2006.

“Petition of Metropolitan Edison Company for Approval of a Rate Transition Plan,” **Pennsylvania** Public Utilities Commission, Docket Nos. P-00062213 and R-00061366; “Petition of Pennsylvania Electric Company for Approval of a Rate Transition Plan,” Docket Nos. P-0062214 and R-00061367; Merger Savings Remand Proceeding, Docket Nos. A-110300F0095 and A-110400F0040. Direct testimony submitted July 10, 2006. Rebuttal testimony submitted August 8, 2006. Surrebuttal testimony submitted August 18, 2006. Cross examined August 30, 2006.

“In the Matter of the Application of PacifiCorp for approval of its Proposed Electric Rate Schedules & Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 06-035-21. Direct testimony submitted June 9, 2006 (Test Period). Surrebuttal testimony submitted July 14, 2006.

“Joint Application of Questar Gas Company, the Division of Public Utilities, and Utah Clean Energy for the Approval of the Conservation Enabling Tariff Adjustment Option and Accounting Orders,” **Utah** Public Service Commission, Docket No. 05-057-T01. Direct testimony submitted May 15, 2006. Rebuttal testimony submitted August 8, 2007. Cross examined September 19, 2007.

“Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Public Service Company d/b/a AmerenCIPS, Illinois Power Company d/b/a AmerenIP, Proposed General Increase in Rates for Delivery Service (Tariffs Filed December 27, 2005),” **Illinois** Commerce Commission, Docket Nos. 06-0070, 06-0071, 06-0072. Direct testimony submitted March 26, 2006. Rebuttal testimony submitted June 27, 2006.

“In the Matter of Appalachian Power Company and Wheeling Power Company, both dba American Electric Power,” Public Service Commission of **West Virginia**, Case No. 05-1278-E-PC-PW-42T. Direct and rebuttal testimony submitted March 8, 2006.

“In the Matter of Northern States Power Company d/b/a Xcel Energy for Authority to Increase Rates for Electric Service in Minnesota,” **Minnesota** Public Utilities Commission, Docket No. G-002/GR-05-1428. Direct testimony submitted March 2, 2006. Rebuttal testimony submitted March 30, 2006. Cross examined April 25, 2006.

“In the Matter of the Application of Arizona Public Service Company for an Emergency Interim Rate Increase and for an Interim Amendment to Decision No. 67744,” **Arizona** Corporation Commission, Docket No. E-01345A-06-0009. Direct testimony submitted February 28, 2006. Cross examined March 23, 2006.

“In the Matter of the Applications of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in Their Charges for Electric Service,” State Corporation Commission of **Kansas**, Case No. 05-WSEE-981-RTS. Direct testimony submitted September 9, 2005. Cross examined October 28, 2005.

“In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Recover Costs Associated with the Construction and Ultimate Operation of an Integrated Combined Cycle Electric Generating Facility,” Public Utilities Commission of **Ohio**,” Case No. 05-376-EL-UNC. Direct testimony submitted July 15, 2005. Cross examined August 12, 2005.

“In the Matter of the Filing of General Rate Case Information by Tucson Electric Power Company Pursuant to Decision No. 62103,” **Arizona** Corporation Commission, Docket No. E-01933A-04-0408. Direct testimony submitted June 24, 2005.

“In the Matter of Application of The Detroit Edison Company to Unbundle and Realign Its Rate Schedules for Jurisdictional Retail Sales of Electricity,” **Michigan** Public Service Commission, Case No. U-14399. Direct testimony submitted June 9, 2005. Rebuttal testimony submitted July 1, 2005.

“In the Matter of the Application of Consumers Energy Company for Authority to Increase Its Rates for the Generation and Distribution of Electricity and Other Relief,” **Michigan** Public Service Commission, Case No. U-14347. Direct testimony submitted June 3, 2005. Rebuttal testimony submitted June 17, 2005.

“In the Matter of Pacific Power & Light, Request for a General Rate Increase in the Company’s Oregon Annual Revenues,” Public Utility Commission of **Oregon**, Docket No. UE 170. Direct testimony submitted May 9, 2005. Surrebuttal testimony submitted June 27, 2005. Joint testimony regarding partial stipulations submitted June 2005, July 2005, and August 2005.

“In the Matter of the Application of Trico Electric Cooperative, Inc. for a Rate Increase,” **Arizona** Corporation Commission, Docket No. E-01461A-04-0607. Direct testimony submitted April 13, 2005. Surrebuttal testimony submitted May 16, 2005. Cross examined May 26, 2005.

“In the Matter of the Application of PacifiCorp for Approval of its Proposed Electric Service Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 04-035-42. Direct testimony submitted January 7, 2005.

“In the Matter of the Application by Golden Valley Electric Association, Inc., for Authority to Implement Simplified Rate Filing Procedures and Adjust Rates,” Regulatory Commission of **Alaska**, Docket No. U-4-33. Direct testimony submitted November 5, 2004. Cross examined February 8, 2005.

“Advice Letter No. 1411 - Public Service Company of Colorado Electric Phase II General Rate Case,” **Colorado** Public Utilities Commission, Docket No. 04S-164E. Direct testimony submitted October 12, 2004. Cross-answer testimony submitted December 13, 2004. Testimony withdrawn January 18, 2005, following Applicant’s withdrawal of testimony pertaining to TOU rates.

“In the Matter of Georgia Power Company’s 2004 Rate Case,” **Georgia** Public Service Commission, Docket No. 18300-U. Direct testimony submitted October 8, 2004. Cross examined October 27, 2004.

“2004 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-040641 and UG-040640. Response testimony submitted September 23, 2004. Cross-answer testimony submitted November 3, 2004. Joint testimony regarding stipulation submitted December 6, 2004.

“In the Matter of the Application of PacifiCorp for an Investigation of Interjurisdictional Issues,” **Utah** Public Service Commission, Docket No. 02-035-04. Direct testimony submitted July 15, 2004. Cross examined July 19, 2004.

“In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Kentucky Utilities Company,” **Kentucky** Public Service Commission, Case No. 2003-00434. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

“In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Louisville Gas and Electric Company,” **Kentucky** Public Service Commission, Case No. 2003-00433. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

“In the Matter of the Application of Idaho Power Company for Authority to Increase Its Interim and Base Rates and Charges for Electric Service,” **Idaho** Public Utilities Commission, Case No. IPC-E-03-13. Direct testimony submitted February 20, 2004. Rebuttal testimony submitted March 19, 2004. Cross examined April 1, 2004.

“In the Matter of the Applications of the Ohio Edison Company, the Cleveland Electric Illuminating Company and the Toledo Edison Company for Authority to Continue and Modify Certain Regulatory Accounting Practices and Procedures, for Tariff Approvals and to Establish

Rates and Other Charges, Including Regulatory Transition Charges Following the Market Development Period,” Public Utilities Commission of **Ohio**, Case No. 03-2144-EL-ATA. Direct testimony submitted February 6, 2004. Cross examined February 18, 2004.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, To Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and For Approval of Purchased Power Contract,” **Arizona** Corporation Commission, Docket No. E-01345A-03-0437. Direct testimony submitted February 3, 2004. Rebuttal testimony submitted March 30, 2004. Direct testimony regarding stipulation submitted September 27, 2004. Responsive / Clarifying testimony regarding stipulation submitted October 25, 2004. Cross examined November 8-10, 2004 and November 29-December 3, 2004.

“In the Matter of Application of the Detroit Edison Company to Increase Rates, Amend Its Rate Schedules Governing the Distribution and Supply of Electric Energy, etc.,” **Michigan** Public Service Commission, Case No. U-13808. Direct testimony submitted December 12, 2003 (interim request) and March 5, 2004 (general rate case).

“In the Matter of PacifiCorp’s Filing of Revised Tariff Schedules,” Public Utility Commission of **Oregon**, Docket No. UE-147. Joint testimony regarding stipulation submitted August 21, 2003.

“Petition of PSI Energy, Inc. for Authority to Increase Its Rates and Charges for Electric Service, etc.,” **Indiana** Utility Regulatory Commission, Cause No. 42359. Direct testimony submitted August 19, 2003. Cross examined November 5, 2003.

“In the Matter of the Application of Consumers Energy Company for a Financing Order Approving the Securitization of Certain of its Qualified Cost,” **Michigan** Public Service Commission, Case No. U-13715. Direct testimony submitted April 8, 2003. Cross examined April 23, 2003.

“In the Matter of the Application of Arizona Public Service Company for Approval of Adjustment Mechanisms,” **Arizona** Corporation Commission, Docket No. E-01345A-02-0403. Direct testimony submitted February 13, 2003. Surrebuttal testimony submitted March 20, 2003. Cross examined April 8, 2003.

“Re: The Investigation and Suspension of Tariff Sheets Filed by Public Service Company of Colorado, Advice Letter No. 1373 – Electric, Advice Letter No. 593 – Gas, Advice Letter No. 80 – Steam,” **Colorado** Public Utilities Commission, Docket No. 02S-315 EG. Direct testimony submitted November 22, 2002. Cross-answer testimony submitted January 24, 2003.

“In the Matter of the Application of The Detroit Edison Company to Implement the Commission’s Stranded Cost Recovery Procedure and for Approval of Net Stranded Cost

Recovery Charges,” **Michigan** Public Service Commission, Case No. U-13350. Direct testimony submitted November 12, 2002.

“Application of South Carolina Electric & Gas Company: Adjustments in the Company’s Electric Rate Schedules and Tariffs,” Public Service Commission of **South Carolina**, Docket No. 2002-223-E. Direct testimony submitted November 8, 2002. Surrebuttal testimony submitted November 18, 2002. Cross examined November 21, 2002.

“In the Matter of the Application of Questar Gas Company for a General Increase in Rates and Charges,” **Utah** Public Service Commission, Docket No. 02-057-02. Direct testimony submitted August 30, 2002. Rebuttal testimony submitted October 4, 2002.

“The Kroger Co. v. Dynegy Power Marketing, Inc.,” **Federal Energy Regulatory Commission**, EL02-119-000. Confidential affidavit filed August 13, 2002.

“In the matter of the application of Consumers Energy Company for determination of net stranded costs and for approval of net stranded cost recovery charges,” **Michigan** Public Service Commission, Case No. U-13380. Direct testimony submitted August 9, 2002. Rebuttal testimony submitted August 30, 2002. Cross examined September 10, 2002.

“In the Matter of the Application of Public Service Company of Colorado for an Order to Revise Its Incentive Cost Adjustment,” **Colorado** Public Utilities Commission, Docket 02A-158E. Direct testimony submitted April 18, 2002.

“In the Matter of the Generic Proceedings Concerning Electric Restructuring Issues,” **Arizona** Corporation Commission, Docket No. E-00000A-02-0051, “In the Matter of Arizona Public Service Company’s Request for Variance of Certain Requirements of A.A.C. R14-2-1606,” Docket No. E-01345A-01-0822, “In the Matter of the Generic Proceeding Concerning the Arizona Independent Scheduling Administrator,” Docket No. E-00000A-01-0630, “In the Matter of Tucson Electric Power Company’s Application for a Variance of Certain Electric Competition Rules Compliance Dates,” Docket No. E-01933A-02-0069, “In the Matter of the Application of Tucson Electric Power Company for Approval of its Stranded Cost Recovery,” Docket No. E-01933A-98-0471. Direct testimony submitted March 29, 2002 (APS variance request); May 29, 2002 (APS Track A proceeding/market power issues); and July 28, 2003 (Arizona ISA). Rebuttal testimony submitted August 29, 2003 (Arizona ISA). Cross examined June 21, 2002 (APS Track A proceeding/market power issues) and September 12, 2003 (Arizona ISA).

“In the Matter of Savannah Electric & Power Company’s 2001 Rate Case,” **Georgia** Public Service Commission, Docket No. 14618-U. Direct testimony submitted March 15, 2002. Cross examined March 28, 2002.

“Nevada Power Company’s 2001 Deferred Energy Case,” Public Utilities Commission of **Nevada**, PUCN 01-11029. Direct testimony submitted February 7, 2002. Cross examined February 21, 2002.

“2001 Puget Sound Energy Interim Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-011570 and UE-011571. Direct testimony submitted January 30, 2002. Cross examined February 20, 2002.

“In the Matter of Georgia Power Company’s 2001 Rate Case,” **Georgia** Public Service Commission, Docket No. 14000-U. Direct testimony submitted October 12, 2001. Cross examined October 24, 2001.

“In the Matter of the Application of PacifiCorp for Approval of Its Proposed Electric Rate Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 01-35-01. Direct testimony submitted June 15, 2001. Rebuttal testimony submitted August 31, 2001.

“In the Matter of Portland General Electric Company’s Proposal to Restructure and Reprice Its Services in Accordance with the Provisions of SB 1149,” Public Utility Commission of **Oregon**, Docket No. UE-115. Direct testimony submitted February 20, 2001. Rebuttal testimony submitted May 4, 2001. Joint testimony regarding stipulation submitted July 27, 2001.

“In the Matter of the Application of APS Energy Services, Inc. for Declaratory Order or Waiver of the Electric Competition Rules,” **Arizona** Corporation Commission, Docket No. E-01933A-00-0486. Direct testimony submitted July 24, 2000.

“In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges,” **Utah** Public Service Commission, Docket No. 99-057-20. Direct testimony submitted April 19, 2000. Rebuttal testimony submitted May 24, 2000. Surrebuttal testimony submitted May 31, 2000. Cross examined June 6 & 8, 2000.

“In the Matter of the Application of Columbus Southern Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1729-EL-ETP; “In the Matter of the Application of Ohio Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1730-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected May 2, 2000.

“In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues,” Public Utility

Commission of **Ohio**, Case No. 99-1212-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected April 11, 2000.

“2000 Pricing Process,” **Salt River Project** Board of Directors, oral comments provided March 6, 2000 and April 10, 2000.

“Tucson Electric Power Company vs. Cyprus Sierrita Corporation,” **Arizona** Corporation Commission, Docket No. E-000001-99-0243. Direct testimony submitted October 25, 1999. Cross examined November 4, 1999.

“Application of Hildale City and Intermountain Municipal Gas Association for an Order Granting Access for Transportation of Interstate Natural Gas over the Pipelines of Questar Gas Company for Hildale, Utah,” **Utah** Public Service Commission, Docket No. 98-057-01. Rebuttal testimony submitted August 30, 1999.

“In the Matter of the Application by Arizona Electric Power Cooperative, Inc. for Approval of Its Filing as to Regulatory Assets and Transition Revenues,” **Arizona** Corporation Commission, Docket No. E-01773A-98-0470. Direct testimony submitted July 30, 1999. Cross examined February 28, 2000.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 30, 1999. Rebuttal testimony submitted August 6, 1999. Cross examined August 11-13, 1999.

“In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01345A-98-0473; “In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01345A-97-0773; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 4, 1999. Rebuttal testimony submitted July 12, 1999. Cross examined July 14, 1999.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,”

Docket No. E-01345A-98-0473; "In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01345A-97-0773; "In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Docket No. RE-00000C-94-0165. Direct testimony submitted November 30, 1998.

"Hearings on Pricing," **Salt River Project** Board of Directors, written and oral comments provided November 9, 1998.

"Hearings on Customer Choice," **Salt River Project** Board of Directors, written and oral comments provided June 22, 1998; June 29, 1998; July 9, 1998; August 7, 1998; and August 14, 1998.

"In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," **Arizona** Corporation Commission, Docket No. U-0000-94-165. Direct and rebuttal testimony filed January 21, 1998. Second rebuttal testimony filed February 4, 1998. Cross examined February 25, 1998.

"In the Matter of Consolidated Edison Company of New York, Inc.'s Plans for (1) Electric Rate/Restructuring Pursuant to Opinion No. 96-12; and (2) the Formation of a Holding Company Pursuant to PSL, Sections 70, 108, and 110, and Certain Related Transactions," **New York** Public Service Commission, Case 96-E-0897. Direct testimony filed April 9, 1997. Cross examined May 5, 1997.

"In the Matter of the Petition of Sunnyside Cogeneration Associates for Enforcement of Contract Provisions," **Utah** Public Service Commission, Docket No. 96-2018-01; "In the Matter of the Application of Rocky Mountain Power for an Order Approving an Amendment to Its Power Purchase Agreement with Sunnyside Cogeneration Associates," Docket Nos. 05-035-46, and 07-035-99. Direct testimony submitted July 8, 1996. Oral testimony provided March 18, 2008.

"In the Matter of the Application of PacifiCorp, dba Pacific Power & Light Company, for Approval of Revised Tariff Schedules and an Alternative Form of Regulation Plan," **Wyoming** Public Service Commission, Docket No. 2000-ER-95-99. Direct testimony submitted April 8, 1996.

"In the Matter of the Application of Mountain Fuel Supply Company for an Increase in Rates and Charges," **Utah** Public Service Commission, Case No. 95-057-02. Direct testimony submitted June 19, 1995. Rebuttal testimony submitted July 25, 1995. Surrebuttal testimony submitted August 7, 1995.

"In the Matter of the Investigation of the Reasonableness of the Rates and Tariffs of Mountain Fuel Supply Company," **Utah** Public Service Commission, Case No. 89-057-15. Direct testimony submitted July 1990. Surrebuttal testimony submitted August 1990.

“In the Matter of the Review of the Rates of Utah Power and Light Company pursuant to The Order in Case No. 87-035-27,” **Utah** Public Service Commission, Case No. 89-035-10. Rebuttal testimony submitted November 15, 1989. Cross examined December 1, 1989 (rate schedule changes for state facilities).

“In the Matter of the Application of Utah Power & Light Company and PC/UP&L Merging Corp. (to be renamed PacifiCorp) for an Order Authorizing the Merger of Utah Power & Light Company and PacifiCorp into PC/UP&L Merging Corp. and Authorizing the Issuance of Securities, Adoption of Tariffs, and Transfer of Certificates of Public Convenience and Necessity and Authorities in Connection Therewith,” **Utah** Public Service Commission, Case No. 87-035-27; Direct testimony submitted April 11, 1988. Cross examined May 12, 1988 (economic impact of UP&L merger with PacifiCorp).

“In the Matter of the Application of Mountain Fuel Supply Company for Approval of Interruptible Industrial Transportation Rates,” **Utah** Public Service Commission, Case No. 86-057-07. Direct testimony submitted January 15, 1988. Cross examined March 30, 1988.

“In the Matter of the Application of Utah Power and Light Company for an Order Approving a Power Purchase Agreement,” **Utah** Public Service Commission, Case No. 87-035-18. Oral testimony delivered July 8, 1987.

“Cogeneration: Small Power Production,” **Federal Energy Regulatory Commission**, Docket No. RM87-12-000. Statement on behalf of State of Utah delivered March 27, 1987, in San Francisco.

“In the Matter of the Investigation of Rates for Backup, Maintenance, Supplementary, and Standby Power for Utah Power and Light Company,” **Utah** Public Service Commission, Case No. 86-035-13. Direct testimony submitted January 5, 1987. Case settled by stipulation approved August 1987.

“In the Matter of the Application of Sunnyside Cogeneration Associates for Approval of the Cogeneration Power Purchase Agreement,” **Utah** Public Service Commission, Case No. 86-2018-01. Rebuttal testimony submitted July 16, 1986. Cross examined July 17, 1986.

“In the Matter of the Investigation of Demand-Side Alternatives to Capacity Expansion for Electric Utilities,” **Utah** Public Service Commission, Case No. 84-999-20. Direct testimony submitted June 17, 1985. Rebuttal testimony submitted July 29, 1985. Cross examined August 19, 1985.

“In the Matter of the Implementation of Rules Governing Cogeneration and Small Power Production in Utah,” **Utah** Public Service Commission, Case No. 80-999-06, pp. 1293-1318.

Direct testimony submitted January 13, 1984 (avoided costs), May 9, 1986 (security for levelized contracts) and November 17, 1986 (avoided costs). Cross-examined February 29, 1984 (avoided costs), April 11, 1985 (standard form contracts), May 22-23, 1986 (security for levelized contracts) and December 16-17, 1986 (avoided costs).

OTHER RELATED ACTIVITY

Participant, Wyoming Load Growth Collaborative, March 2008 to present.

Participant, Oregon Direct Access Task Force (UM 1081), May 2003 to November 2003.

Participant, Michigan Stranded Cost Collaborative, March 2003 to March 2004.

Member, Arizona Electric Competition Advisory Group, December 2002 to present.

Board of Directors, ex-officio, Desert STAR RTO, September 1999 to February 2002.

Member, Advisory Committee, Desert STAR RTO, September 1999 to February 2002. Acting Chairman, October 2000 to February 2002.

Board of Directors, Arizona Independent Scheduling Administrator Association, October 1998 to present.

Acting Chairman, Operating Committee, Arizona Independent Scheduling Administrator Association, October 1998 to June 1999.

Member, Desert Star ISO Investigation Working Groups: Operations, Pricing, and Governance, April 1997 to December 1999. Legal & Negotiating Committee, April 1999 to December 1999.

Participant, Independent System Operator and Spot Market Working Group, Arizona Corporation Commission, April 1997 to September 1997.

Participant, Unbundled Services and Standard Offer Working Group, Arizona Corporation Commission, April 1997 to October 1997.

Participant, Customer Selection Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Stranded Cost Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Electric System Reliability & Safety Working Group, Arizona Corporation Commission, November 1996 to September 1998.

Chairman, Salt Palace Renovation and Expansion Committee, Salt Lake County/State of Utah/Salt Lake City, multi-government entity responsible for implementation of planning, design, finance, and construction of an \$85 million renovation of the Salt Palace Convention Center, Salt Lake City, Utah, May 1991 to December 1994.

State of Utah Representative, Committee on Regional Electric Power Cooperation, a joint effort of the Western Interstate Energy Board and the Western Conference of Public Service Commissioners, January 1987 to December 1990.

Member, Utah Governor's Economic Coordinating Committee, January 1987 to December 1990.

Chairman, Standard Contract Task Force, established by Utah Public Service Commission to address contractual problems relating to qualifying facility sales under PURPA, March 1986 to December 1990.

Chairman, Load Management and Energy Conservation Task Force, Utah Public Service Commission, August 1985 to December 1990.

Alternate Delegate for Utah, Western Interstate Energy Board, Denver, Colorado, August 1985 to December 1990.

Articles Editor, Economic Forum, September 1980 to August 1981.

AEECC
Removal APS' Proposed Attrition Adjustment
Total Company
(Thousands of Dollars)

Proforma Adjustment: Remove APS Attrition

Line No.	Description	APS Total Company Amount	AEECC Total Company Amount	AEECC Adjustment
1.	Revenues			
2.	Other Electric Revenue	-	-	-
3.	Other Operating Expenses			
4.	Operations Excluding Fuel Expense	79,278	-	(79,278)
5.	Depreciation and Amortization	-	-	-
6.	Other Taxes	-	-	-
7.	Total Expenses	<u>79,278</u>	<u>-</u>	<u>(79,278)</u>
8.	Operating Income (before income tax)	\$ (79,278)	\$ -	\$ 79,278
9.	Interest Expense	-	-	-
10.	Taxable Income	<u>(79,278)</u>	<u>-</u>	<u>79,278</u>
11.	Current Income Tax Rate - 39.36%	(31,204)	-	31,204
12.	Operating Income After Tax	\$ (48,074)	\$ -	\$ 48,074
13.	Gross Revenue Conversion Factor			<u>1.6491</u>
14.	Estimated Revenue Requirement Impact			\$ (79,279)

**AEC Rate Base Pro Forma Adjustment
for Palo Verde Unit 3 Steam Generator and Low Pressure Turbine Rotor Replacement
to Reflect the Average Rate Base Amount for 2009
(Dollars in Thousands)**

Proforma Adjustment: **Palo Verde Unit 3 Adjustment for Avg Rate Base**
Adjustment to Test Year rate base (including accumulated depreciation) to include the replacement of the Palo Verde Unit 3 Steam Generators averaged for 2009 rate base.

Line No.	Description	APS Palo Verde Unit 3 SGR and LPTR Replacement	AEC Palo Verde Unit 3 SGR and LPTR Replacement	AEC Adjustment Difference
1.	Gross Utility Plant in Service	\$ 49,135	\$ 49,135	\$ -
2.	Less: Accumulated Depreciation & Amort.	(44,725)	(41,632)	3,093
3.	Net Utility Plant in Service	93,860	90,767	(3,093)
4.	Less: Total Deductions			
5.	Plus: Total Additions			
6.	Total Rate Base	\$ 93,860	\$ 90,767	\$ (3,093)
7.	ACC Jurisdictional Amount			\$ (3,038)
8.	APS Requested Rate of Return			8.86%
9.	Required Operating Income			\$ (269)
10.	Gross Revenue Conversion Factor			1.6491
11.	Estimated Revenue Requirement Impact			\$ (444)

AECC
Rate Base Pro Forma Adjustments
Cholla Construction Projects
for Average 2009 Rate Base
(Dollars in Thousands)

Proforma Adjustment:

Cholla Environmental Projects Adjustment for Avg Rate Base
Adjustment to Test Year rate base (including accumulated depreciation) to include significant environmental and other Cholla construction projects for average 2009 rate base

Line No.	Description	APS Cholla Construction Projects	AECC Cholla Construction Projects	AECC Adjustment
1.	Gross Utility Plant in Service	\$ 15,213	\$ 15,213	\$ -
2.	Less: Accumulated Depreciation & Amort.	(676)	(294)	382
3.	Net Utility Plant in Service	15,889	15,507	(382)
4.	Less: Total Deductions	-	-	-
5.	Plus: Total Additions	-	-	-
6.	Total Rate Base	\$ 15,889	\$ 15,507	\$ (382)
7.	ACC Jurisdictional Amount			\$ (376)
8.	APS Requested Rate of Return			8.86%
9.	Required Operating Income			\$ (33)
10.	Gross Revenue Conversion Factor			1.6491
11.	Estimated Revenue Requirement Impact			\$ (55)

**AECC YUCCA 5 AND 6
Rate Base Pro Forma Adjustments
Average 2009 Rate Base
(Dollars in Thousands)**

Proforma Adjustment:

Yucca Units 5 and 6 Adjustment for Avg Rate Base
Adjustment to Test Year rate base (including accumulated depreciation) to include two CT generation units being built to serve Yuma for average 2009 rate base.

Line No.	Description	APS Yucca 5-6 Construction Projects (\$000)		AECC Yucca 5-6 Construction Projects (\$000)		AECC Adjustment Difference Total Co.
		Construction Projects (\$000)	Total Co.	Construction Projects (\$000)	Total Co.	
1.	Gross Utility Plant in Service	\$ 77,123		\$ 77,123		-
2.	Less: Accumulated Depreciation & Amort.	-		2,185		2,185
3.	Net Utility Plant in Service	77,123		74,939		(2,185)
4.	Less: Total Deductions	-		-		-
5.	Plus: Total Additions					-
6.	Total Rate Base	\$ 77,123		\$ 74,939		(2,185)
7.	ACC Jurisdictional Amount					\$ (2,146)
8.	APS Requested Rate of Return					8.86%
9.	Required Operating Income					\$ (190)
10.	Gross Revenue Conversion Factor					1.6491
11.	Estimated Revenue Requirement Impact					\$ (314)

AEECC
Rate Base Pro forma Adjustments
Twelve Months Ending December 31, 2009
(Dollars in Thousands)

Proforma Adjustment:

AEECC Pro Forma Rate Base Adjustments - 2007 CWIP, Attrition Portion, and Capital Adjustment
Adjustment to Test Year rate base (including accumulated depreciation) to reflect average 2009 rate base for 2007 CWIP, 2009 rate base attrition, and an adjustment to 2009 capital projects expenditures.

Line No.	Description	2007 APS CWIP Portion		2009 @ 100%		2009 w/ 25% Reduction		2009 w/ 25% Reduction	
		APS Post Test Year Plant Additions	AEECC Post Test Year Plant Additions	AEECC Adjustment	AEECC Adjustment	APS Attrition Portion	AEECC Adjustment	APS Attrition Portion	AEECC Adjustment
1.	Gross Utility Plant in Service	\$ 251,258	\$ 230,918	\$ (20,340)	\$ 919,630	\$ 809,038	\$ (110,592)		
2.	Less: Accumulated Depreciation & Amort. - Existing				602,716	602,716	-		
3.	Less: Accumulated Depreciation & Amort. - New	-	11,054	11,054	21,574	20,188	(1,387)		
4.	Net Utility Plant in Service	251,258	219,863	(31,395)	295,339	186,134	(109,205)		
5.	Less: Total Deductions	-	-	-	62,609	62,609	-		
6.	Plus: Total Additions	-	-	-	-	-	-		
7.	Total Rate Base	\$ 251,258	\$ 219,863	\$ (31,395)	\$ 232,730	\$ 123,525	\$ (109,205)		
8.	ACC Jurisdictional Amount			\$ (30,588)	\$ 226,750		\$ (106,399)		
9.	APS Requested Rate of Return			8.86%	8.86%		8.86%		
10.	Required Operating Income			\$ (2,710)	\$ 20,090		\$ (9,427)		
11.	Gross Revenue Conversion Factor			1.6491	1.6491		1.6491		
12.	Estimated Revenue Requirement Impact from Rate Base			\$ (4,469)	\$ 33,131		\$ (15,546)		
13.	Estimated Revenue Requirement Impact from Income Statement			\$ (474)	\$ 26,116		\$ (1,919)		
14.	Estimated Revenue Requirement Impact - Rate Base + Income			\$ (4,943)	\$ 59,246		\$ (17,465)		
15.	Estimated Revenue Requirement Impact - Total						\$ 36,838		

AECC
Income Statement Pro forma Adjustments
Twelve Months Ending December 31, 2007
(Dollars in Thousands)

Proforma Adjustment: **AECC Pro Forma Income Statement Adjustments - 2007 CWIP, Attrition Portion, and Capital Adjustment**
Adjustment to Test Year income statement to reflect 2009 expenses for 2007 CWIP, 2009 rate base attrition, and an adjustment to 2009 capital projects expenditures.

Line No.	Description	2007 APS CWIP Portion		Post Test Year Plant Additions	2009 @ 100%		2009 w/ 25% Reduction		2009 w/ 25% Reduction	
		APS	AECC		AECC	AECC	APS Attrition Portion	AECC	AECC	AECC
		Plant Additions	Adjustment	Plant Additions	Adjustment	Adjustment	Adjustment	Adjustment	Adjustment	Adjustment
1.	Electric Operating Revenues	-	-	-	-	-	-	-	-	-
2.	Fuel Expense	-	-	-	-	-	-	-	-	-
3.	Oper Rev Less Fuel	-	-	-	-	-	-	-	-	-
	Other Operating Expenses:									
4.	Operations Excluding Fuel Expenses	-	-	-	-	-	-	-	-	-
5.	Maintenance	-	-	-	-	-	-	-	-	-
6.	Subtotal	-	-	-	-	-	-	-	-	-
7.	Depreciation	14,134	(1,024)	13,110	30,837	26,975	(3,863)			
8.	Amortization of Gain	-	-	-	-	-	-	-	-	-
9.	Administrative and General	-	-	-	-	-	-	-	-	-
10.	Other Taxes	3,214	(1,024)	3,214	30,837	26,975	(3,863)			
11.	Total	17,348	(1,024)	17,348	30,837	26,975	(3,863)			
12.	Operating Income	(17,348)	1,024	-	(30,837)	(26,975)	3,863			
13.	Net Deductions	-	-	-	-	-	-	-	-	-
14.	Interest Expense	6,699	(829)	5,870	6,214	3,298	(2,916)			
15.	Taxable Income	(24,047)	1,853	(5,870)	(37,051)	(30,273)	6,778			
16.	Current Income Tax Rate - 39.36%	(9,465)	729	(2,311)	(14,583)	(11,915)	2,668			
17.	Deferred Tax	-	-	-	-	-	-	-	-	-
18.	Net Income	(7,883)	295	2,311	(16,254)	(15,059)	1,195			
19.	ACC Jurisdictional Amount		\$ 287		\$ (15,836)		\$ 1,164			
20.	Gross Revenue Conversion Factor		1.6491		1.6491		1.6491			
21.	Estimated Revenue Requirement Impact		\$ (474)		\$ 26,116		\$ (1,919)			

AECC
Base Fuel and Purchased Power Adjustment
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: **2007 BASE FUEL AND PURCHASED POWER**
Adjustment to APS Test Year Operations to Reduce 2010 Base Fuel and
Purchased Power \$/kWh Costs to 2009 Base Fuel and Purchased Power Costs at Adjusted 2007 Consumption

Line No.	Description	APS (Based on 2010) Amount	AECC (Based on 2009) Amount	AECC Adjustment
1.	ADJUSTED TEST YEAR FUEL AND PURCHASED POWER COSTS (\$/kWh)			
2.	Normalized Fuel and Purchased Power Costs (\$/kWh)	3,8763	3,7327	
3.	Test Year Fuel and Purchased Power Costs (\$/kWh)	3,4346	3,4346	
4.	Adjustment to Fuel and Purchased Power Costs (\$/kWh)	0,4437	0,2981	
5.	ADJUSTED TEST YEAR RETAIL SALES (MWh)			
6.	Test Year Retail Sales (MWh)	29,171,321	29,171,321	
7.	Pro Forma Adjustments to Test Year Billed Retail Sales (MWh)	(445,396)	(445,396)	
8.	To Adjust to Normal Weather	494,127	494,127	
9.	To Annualize to December 31, 2007 Customer Level			
10.	Adjusted 2007 Retail Sales (MWh)	29,220,052	29,220,052	
11.	Pro Forma Adjustment to Fuel and Purchased Power Expenses (Line 4 x Line 10)	\$ 129,649	\$ 87,119	\$ (42,530)
12.	Operating Income (before income tax)	\$ (129,649)	\$ (87,119)	\$ 42,530
13.	Current Income Tax Rate - 39.36%	(51,030)	(34,290)	16,740
14.	Operating Income After Tax	\$ (78,619)	\$ (52,829)	\$ 25,790
15.	Gross Revenue Conversion Factor			1,6491
16.	Estimated Revenue Requirement Impact			\$ (42,530)

AECC
2009 Sales Growth Adjustment
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: 2009 Sales Growth
AECC Adjustment to APS Test Year Operations to Adjust Revenue and Fuel and Purchased Power Costs to 2009 Consumption.

Line No.	Description	AECC (Based on 2009) Amount
1.	REVENUES	
2.	Operating Revenue	27,972
3.	Pro Forma Additional 2009 Retail Consumption (MWh)	330,298
4.	ADJUSTED TEST YEAR FUEL AND PURCHASED POWER COSTS (¢/kWh)	
5.	Normalized Fuel and Purchased Power Costs (¢/kWh)	3.7327
6.		<u>3.7327</u>
7.	Adjustment to Fuel and Purchased Power Costs (¢/kWh)	3.7327
8.	ADJUSTED TEST YEAR RETAIL SALES (MWh)	
9.	Adjusted Test Year Retail Sales (MWh)	29,220,052
10.	Pro Forma Adjustments to Adjusted Test Year Retail Sales (MWh)	
11.	To Adjust to 2009 Consumption (MWh)	<u>330,298</u>
12.	Adjusted 2009 Retail Sales (MWh)	29,550,350
13.	Pro Forma Adjustment to Fuel and Purchased Power Expenses (Line 7 x Line 11)	<u>\$ 12,329</u>
14.	Operating Income (before income tax)	\$ 15,643
15.	Current Income Tax Rate - 39.36%	6,157
16.	Operating Income After Tax	\$ 9,486
17.	Gross Revenue Conversion Factor	1.6491
18.	Estimated Revenue Requirement Impact	\$ (15,643)

AECC
Computation of Increase in Gross Revenue Requirements
ACC Jurisdiction
Estimated 2009 Test Year
(Thousands of Dollars)

Line No.	Description	Original Cost
1	Rate Base - AECC Adjusted	\$ 5,444,168
2	Adjusted Operating Income	272,077
3	Current Rate of Return	5.00%
4	Required Operating Income	482,353
5	Requested Rate of Return	8.86%
6	Adjusted Operating Income Deficiency	210,276
7	Gross Revenue Conversion Factor	1.6491
8	AECC Adjused Increase in Base Revenue Requirement	\$ 346,767
9	APS Requested Increase in Base Revenue Requirement	448,194
10	AECC Revenue Adjustment from APS Request	\$ (101,427)

AECC
ORIGINAL COST RATE BASE PRO FORMA ADJUSTMENTS
to Reflect 2009 Average Rate Base Balances
(Thousands of Dollars)

Line No.	Description	APS Adjusted @ End of 12/31/2007 Total Co.	ACC	Palo Verde Unit 3 Adjustment for Avg Rate Base Total Co.	ACC	Cholla Environmental Projects Adjustment for Avg Rate Base Total Co.	ACC	Yucca Units 5 and 6 Adjustment for Avg Rate Base Total Co.	ACC
1	Gross Utility Plant in Service	\$ 12,304,621	\$ 10,706,428	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Less: Accumulated Depreciation and Amortization	4,569,422	4,047,659	3,093	3,038	382	376	2,185	2,146
3	Net Utility Plant in Service	7,715,199	6,658,769	(3,093)	(3,038)	(382)	(376)	(2,185)	(2,146)
4	Less: Total Deductions	2,508,598	2,276,040	0	0	0	0	0	0
5	Plus: Total Additions	1,029,265	977,235	0	0	0	0	0	0
6	Total Rate Base	<u>\$ 6,235,866</u>	<u>\$ 5,359,964</u>	<u>\$ (3,093)</u>	<u>\$ (3,038)</u>	<u>\$ (382)</u>	<u>\$ (376)</u>	<u>\$ (2,185)</u>	<u>\$ (2,146)</u>

AECC
ORIGINAL COST RATE BASE PRO FORMA ADJUSTMENTS
to Reflect 2009 Average Rate Base Balances
(Thousands of Dollars)

Line No.	Description	2007 CWIP Portion Pro Forma Rate Base Adjustment for Avg Rate Base Total Co.	Attrition Portion Pro Forma Rate Base Adjustment for Avg Rate Base Total Co.	Capital Adjustment Pro Forma Rate Base Adjustment for Avg Rate Base Total Co.	AECC Adjusted @ 2009 Avg Rate Base Total Co.	ACC
1	Gross Utility Plant in Service	\$ (20,340)	\$ 919,630	\$ (110,592)	\$ 13,093,319	\$ 11,474,861
2	Less: Accumulated Depreciation and Amortization	11,054	624,291	(1,387)	5,229,040	4,670,888
3	Net Utility Plant in Service	(31,395)	295,339	(109,205)	7,864,278	6,803,973
4	Less: Total Deductions	0	62,609	0	2,571,207	2,337,040
5	Plus: Total Additions	0	0	0	1,029,265	977,235
6	Total Rate Base	<u>\$ (31,395)</u>	<u>\$ 232,730</u>	<u>\$ (109,205)</u>	<u>\$ 6,322,337</u>	<u>\$ 5,444,168</u>

AECC Income Statement
Adjusted to Reflect 2009 Test Year

Line No.	Description	APS Proforma		Remove Attrition		2007 CWIP Portion		Attrition Portion	
		Total Company	ACC Jurisdiction	Total Company	ACC Jurisdiction	Total Company	ACC Jurisdiction	Total Company	ACC Jurisdiction
1	Electric Operating Revenues								
2	Revenues from Base Rates	\$ 2,690,150	\$ 2,637,447						
3	Revenues from Surcharges	0	0						
4	Other Electric Revenues	122,862	94,461						
	Total	2,813,012	2,731,908	0	0	0	0	0	0
5	Operating Expenses:								
6	Electric Fuel and Purchased Power	1,232,888	1,200,220						
7	Operations and Maintenance Excluding Fuel Expense	771,228	827,598	(79,278)	(79,278)				
8	Depreciation and Amortization	384,796	345,176			(1,024)	(998)	30,837	30,045
9	Income Taxes	36,196	28,234	31,204	31,204	729	711	(14,583)	(14,209)
10	Other Taxes	146,931	127,568						
	Total	2,572,039	2,528,796	(48,074)	(48,074)	(295)	(287)	16,254	15,836
11	Operating Income	240,973	203,112	48,074	48,074	295	287	(16,254)	(15,836)
12	Other Income (Deductions)								
13	Income Taxes	4,578	0						
14	Allowance for Funds Used During Construction	21,195	0						
15	Other Income (Deductions)	16,727	0						
16	Other Expenses	(21,630)	0						
	Total	20,870	0	0	0	0	0	0	0
17	Income Before Interest Deductions	261,843	203,112	48,074	48,074	295	287	(16,254)	(15,836)
18	Interest Deductions:								
19	Interest on Long -Term Debt	161,030	0						
20	Interest on Short Term Borrowings	9,564	0						
21	Debt Discount, Premium and Expense	4,639	0						
22	Allowance for Borrowed Funds Used During Constructi	(12,308)	0						
	Total	162,925	0	0	0	0	0	0	0
23	Net Income	98,918	203,112	48,074	48,074	295	287	(16,254)	(15,836)

AEEC Income Statement
Adjusted to Reflect 2009 Test Year

Line No.	Description	Capital Adjustment Pro Forma Rate Base		2007 Use Fuel & Purchased Power		2009 Pro Forma Sales Growth		AEEC Proforma	
		Total Company	ACC Jurisdiction	Total Company	ACC Jurisdiction	Total Company	ACC Jurisdiction	Total Company	ACC Jurisdiction
Electric Operating Revenues									
1	Revenues from Base Rates					\$ 27,972	\$ 27,972	\$ 2,718,122	\$ 2,665,419
2	Revenues from Surcharges							0	0
3	Other Electric Revenues							122,862	94,461
4	Total	0	0	0	0	27,972	27,972	2,840,984	2,759,880
Operating Expenses:									
5	Electric Fuel and Purchased Power			(42,530)	(42,530)	12,329	12,329	1,202,687	1,170,019
6	Operations and Maintenance Excluding Fuel Expense							691,950	748,320
7	Depreciation and Amortization	(3,863)	(3,763)					410,746	370,460
8	Income Taxes	2,668	2,599	16,740	16,740	6,157	6,157	79,111	71,436
9	Other Taxes							146,931	127,568
10	Total	(1,195)	(1,164)	(25,790)	(25,790)	18,486	18,486	2,531,425	2,487,803
11	Operating Income	1,195	1,164	25,790	25,790	9,486	9,486	309,559	272,077
Other Income (Deductions)									
12	Income Taxes							4,578	0
13	Allowance for Funds Used During Construction							21,195	0
14	Other Income (Deductions)							16,727	0
15	Other Expenses							(21,630)	0
16	Total	0	0	0	0	0	0	20,870	0
17	Income Before Interest Deductions	1,195	1,164	25,790	25,790	9,486	9,486	330,429	272,077
Interest Deductions:									
18	Interest on Long-Term Debt							161,030	0
19	Interest on Short-Term Borrowings							9,564	0
20	Debt Discount, Premium and Expense							4,639	0
21	Allowance for Borrowed Funds Used During Construction							(12,308)	0
22	Total	0	0	0	0	0	0	162,925	0
23	Net Income	1,195	1,164	25,790	25,790	9,486	9,486	167,504	272,077