

ORIGINAL



0000057921

RECEIVED

52D

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

BEFORE THE ARIZONA CORPORATION COMMISSION P 12: 28

COMMISSIONERS

- JEFF HATCH-MILLER, Chairman
- WILLIAM A. MUNDELL
- MIKE GLEASON
- KRISTIN K. MAYES
- BARRY WONG

AZ CORP COMMISSION
DOCUMENT CONTROL

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 TO AMEND
DECISION NO. 67744

DOCKET NO. E-01345A-05-0816

**NOTICE OF FILING OF DIRECT
TESTIMONY, ATTACHMENTS,
AND SUMMARY OF KEVIN C.
HIGGINS ON BEHALF OF
PHELPS DODGE MINING
COMPANY AND ARIZONANS
FOR ELECTRIC CHOICE AND
COMPETITION**

Phelps Dodge Mining Company and Arizonans for Electric Choice and
Competition, through undersigned counsel, hereby provide notice of filing the Direct
Testimony, Attachments, and Summary of their witness, Kevin C. Higgins, in the above
captioned docket.

RESPECTFULLY SUBMITTED this 18th day of August 2006.

FENNEMORE CRAIG, P.C.

By

C. Webb Crockett
Patrick J. Black
3003 N. Central Avenue, Ste. 2600
Phoenix, AZ 85012-2913

Arizona Corporation Commission

DOCKETED

AUG 18 2006

DOCKETED BY	nr
-------------	----

Attorneys for Phelps Dodge Mining Company and
Arizonans for Electric Choice and Competition

1 ORIGINAL and 13 COPIES of the foregoing
2 FILED this 18th day of August 2006 with:

3 Docket Control
4 ARIZONA CORPORATION COMMISSION
5 1200 West Washington
6 Phoenix, Arizona 85007

7 COPIES HAND-DELIVERED this
8 18th day of August 2006 to:

9 JEFF HATCH-MILLER, Chairman
10 Arizona Corporation Commission
11 1200 West Washington
12 Phoenix, Arizona 85007

13 Dean Miller
14 Advisor to Chairman Jeff Hatch-Miller
15 Arizona Corporation Commission
16 1200 West Washington
17 Phoenix, Arizona 85007

18 WILLIAM A. MUNDELL, Commissioner
19 Arizona Corporation Commission
20 1200 West Washington
21 Phoenix, Arizona 85007

22 Adam Stafford
23 Advisor to Commissioner William A. Mundell
24 Arizona Corporation Commission
25 1200 West Washington
26 Phoenix, Arizona 85007

MIKE GLEASON, Commissioner
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Ken Rozen
Advisor to Commissioner Mike Gleason
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

KRISTIN K. MAYES, Commissioner
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

26

1 Matt Derr
2 Advisor to Commissioner Kristin K. Mayes
3 Arizona Corporation Commission
4 1200 West Washington
5 Phoenix, Arizona 85007

6 BARRY WONG , Commissioner
7 Arizona Corporation Commission
8 1200 West Washington
9 Phoenix, Arizona 85007

10 Eric Grosneger
11 Advisor to Commissioner Barry Wong
12 Arizona Corporation Commission
13 1200 West Washington
14 Phoenix, Arizona 85007

15 Christopher Kempley
16 Legal Division
17 Arizona Corporation Commission
18 1200 West Washington
19 Phoenix, AZ 85007

20 Ernest Johnson
21 Utilities Division
22 Arizona Corporation Commission
23 1200 West Washington
24 Phoenix, AZ 85007

25 **COPIES HAND-DELIVERED**
26 **AND E-MAILED** this 18th day
of August 2006 to:

18 Lyn Farmer
19 Hearing Division
20 Arizona Corporation Commission
21 1200 West Washington
22 Phoenix, AZ 85007
23 lfarmer@azcc.gov

24 **THREE COPIES HAND-DELIVERED**
25 this 18th day of August 2006 to:

26 Thomas L. Mumaw
Pinnacle West Capital Corporation
P.O. Box 53999, MS 8695
Phoenix, AZ 85072-3999

1 -and-

2 Deborah R. Scott
3 Snell & Wilmer
4 One Arizona Center
5 400 E. Van Buren Street
6 Phoenix, AZ 85004-2202
7 Attorneys for Arizona Public Service Company

8
9 **COPIES MAILED or E-MAILED**
10 this 18th day of August 2006 to:

11 Timothy Hogan
12 202 East McDowell Rd., Ste. 153
13 Phoenix, Arizona 85004

14 Michael Patten
15 One Arizona Center
16 400 East Van Buren St., Ste. 800
17 Phoenix, Arizona 85004-3906

18 Walter Meek
19 2100 North Central Ave., Ste. 210
20 Phoenix, Arizona 85067

21 Scott Wakefield
22 1110 West Washington St., Ste. 220
23 Phoenix, Arizona 85007

24 Dan Austin
25 6509 West Frye Rd., Ste. 4
26 Chandler, Arizona 85226

27 Jim Nelson
28 12621 North 17th Place
29 Phoenix, Arizona 85022

30 Bill Murphy
31 5401 North 25th Street
32 Phoenix, Arizona 85016

33 Douglas Fant
34 3655 West Anthem Way -A-109
35 PMB 411
36 Anthem, Arizona 85086

37 Michelle Livengood
38 One South Church St., Ste. 200
39 Tucson, Arizona 85702

- 1 Tracy Spoon
- 2 12630 North 103rd Ave., Ste. 144
- 3 Sun City, Arizona 85351
- 4 Michael Kurtz
- 5 36 East Seventh St., Ste. 1510
- 6 Cincinnati, Ohio 45202
- 7 Donna Bronski
- 8 3939 Drinkwater Blvd.
- 9 Scottsdale, Arizona 85251
- 10 Robert Geake
- 11 P.O. Box 29006
- 12 Phoenix, Arizona 85038-9006
- 13 Lieutenant Colonel Karen White
- 14 139 Barnes Drive
- 15 Tyndall AFB, Florida 32403
- 16 Lawrence Robertson, Jr.
- 17 Munger Chadwick
- 18 P.O. Box 1448
- 19 Tubac, Arizona 85646
- 20 George Bien-Willner
- 21 3641 North 39th Ave.
- 22 Phoenix, Arizona 85034
- 23 Amanda Ormond
- 24 7650 South McClintock, Ste. 103-282
- 25 Tempe, Arizona 85284
- 26 Greg Patterson
- 916 West Adams – 3
- Phoenix, Arizona 85007
- Sean Seitz
- 3008 North Civic Center Plaza
- Scottsdale, Arizona 85251
- Kenneth Saline
- 160 North Pasadena – 101
- Mesa, Arizona 85201
- Jay Moyes
- 1850 North Central Ave. – 1100
- Phoenix, Arizona 85004

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

Andrew Bettwy
5241 Spring Mountain Rd.
Las Vegas, Nevada 98150

Mary Bollington

1
2
3
4
5
6
7
8
9
10
11
12
13

Summary of
Direct Testimony of Kevin C. Higgins

on behalf of
Phelps Dodge Mining Company and
Arizonans for Electric Choice and Competition

Revenue Requirements

August 18, 2006

1
2
3
4
5
6
7
8
9
10
11

SUMMARY

My testimony evaluates the merits of APS's general rate case filing with respect to revenue requirements and recommends certain adjustments to the Company's proposed revenue requirements that are necessary to ensure results that are just and reasonable. Relative to the wide scope of this general rate proceeding, my recommended adjustments are concentrated on a limited number of issues. Absence of comment on my part regarding a particular revenue issue does not signify support (or opposition) toward the Company's filing with respect to the non-discussed issue.

12 I propose the following adjustments to APS's requested revenue requirement:

- 13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
- Reduce fuel expense by \$67 million consistent with the modifications made by APS in the Interim proceeding;
 - Reduce Administrative & General expense for the PWEC units by \$11.5 million;
 - Reduce Operations and Maintenance expense for the PWEC units by \$3.6 million;
 - Eliminate the proposed ratepayer financing of the accelerated recovery of APS's underfunded pension liability in the amount of \$41.2 million;
 - Deny APS's proposal to retain an additional 10 percent of the gains from hedging, thereby reducing APS's proposed revenue requirement by \$8 million (at the level of fuel expense reflecting the \$67 million adjustment noted in the first bullet above).

30 These revenue requirement adjustments total \$131 million.

31 In addition, I recommend that:

- 32
33
34
35
36
37
38
- APS's proposal to change various components of the 90/10 sharing mechanism in the PSA be denied; and
 - APS's proposal to adopt an Environmental Improvement Charge be denied.

39 Finally, I respond on behalf of AECC to the letter of Commissioner Mayes, dated
40 July 17, 2006, in which she asked the parties to provide testimony on
41 incorporating the Renewable Energy Standard and Tariff ("REST") into this case.

1 AECC supports the utilization of cost-effective renewable energy, but has
2 expressed concerns about the unknown cost impacts of the required increases in
3 the REST Portfolio Percentage, and has proposed the adoption of performance
4 standards linking future increases in the Portfolio Percentage to demonstrated
5 improvements in performance or reductions in cost-per-kWh.
6

7 With respect to specific REST Surcharges, AECC has indicated its support
8 for the specific charges and rate design enumerated in the Sample Tariff included
9 in Attachment A to Decision No. 68566. AECC would support adoption of these
10 specific charges in this docket, including the caps enumerated in items A through
11 D. AECC does not support higher charges or changes to the caps specified in the
12 Sample Tariff.
13
14

15 1826253.1

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

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)

Docket No. E-01345A-05-0816

Direct Testimony of Kevin C. Higgins

on behalf of

**Phelps Dodge Mining Company and
Arizonans for Electric Choice and Competition**

Revenue Requirements

August 18, 2006

TABLE OF CONTENTS

1

2 Table of Contents.....i

3 Introduction.....1

4 Overview and Conclusions.....3

5 Revenue Requirement Adjustments.....6

6 Other Proposed Changes to the PSA.....14

7 Proposed Environmental Improvement Charge.....17

8 Renewable Energy Standard and Tariff.....19

9 ATTACHMENTS

10 KCH-1.....Qualifications

11 KCH-2.....AECC Adjustments to PWEC O&M and A&G Expense

12 KCH-3.....AECC Adjustments to Pension Expense

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

7 **Q. Have you previously testified before this Commission?**

8 A. Yes. I have testified in a number of proceedings before this Commission,
9 including the generic proceeding on retail electric competition (1998), the
10 hearings on the Arizona Public Service Company (“APS”) Direct Access
11 Settlement Agreement (1999), the hearings on the TEP Direct Access Settlement
12 Agreement (1999), the AEPCO transition charge hearings (1999), the
13 Commission’s Track A proceeding (2002), the APS adjustment mechanism
14 proceeding (2003), the Arizona ISA proceeding (2003), the APS Rate Case
15 (2004), the Trico Rate Case (2005), and the APS Emergency Interim Rate
16 proceeding (2006).

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

18 A. Yes. I have testified in over fifty other proceedings on the subjects of
19 electric utility rates and regulatory policy before state utility regulators in Alaska,
20 Colorado, Georgia, Idaho, Illinois, Indiana, Kansas, Michigan, Minnesota,
21 Nevada, New York, Ohio, Oregon, Pennsylvania, South Carolina, Utah,
22 Washington, West Virginia, and Wyoming. I have also participated in various
23 Pricing Processes conducted by the Salt River Project Board.

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

3
4 **II. Overview and Conclusions**

5 **Q. What is the purpose of your testimony in the Revenue Requirements phase of**
6 **this proceeding?**

7 A. My testimony evaluates the merits of APS's general rate case filing with
8 respect to revenue requirements and recommends certain adjustments to the
9 Company's proposed revenue requirements that are necessary to ensure results
10 that are just and reasonable. Relative to the wide scope of this general rate
11 proceeding, my recommended adjustments are concentrated on a limited number
12 of issues. Absence of comment on my part regarding a particular revenue issue
13 does not signify support (or opposition) toward the Company's filing with respect
14 to the non-discussed issue.

15 In addition, I discuss AECC's position with respect to the application of
16 the Renewable Energy Standard and Tariff in this proceeding, as requested by
17 Commissioner Mayes in her letter of July 17, 2006.

18 **Q. What conclusions and recommendations have you reached in your analysis?**

19 A. I propose the following adjustments to APS's requested revenue
20 requirement:

- 21 • Reduce fuel expense by \$67 million consistent with the modifications
22 made by APS in the Interim proceeding;
23
24 • Reduce Administrative & General expense for the PWEC units by \$11.5
25 million;
26

- 1 • Reduce Operations and Maintenance expense for the PWEC units by \$3.6
2 million;
3
4 • Eliminate the proposed ratepayer financing of the accelerated recovery of
5 APS's underfunded pension liability in the amount of \$41.2 million;
6
7 • Deny APS's proposal to retain an additional 10 percent of the gains from
8 hedging, thereby reducing APS's proposed revenue requirement by \$8
9 million (at the level of fuel expense reflecting the \$67 million adjustment
10 noted in the first bullet above).
11

12 These revenue requirement adjustments total \$131 million.

13 In addition, I recommend that:

- 14 • APS's proposal to change various components of the 90/10 sharing
15 mechanism in the PSA be denied; and
16
17 • APS's proposal to adopt an Environmental Improvement Charge be
18 denied.
19
20

21 **Q. Before proceeding with the specifics of your proposals, please provide a high-**
22 **level overview of this case.**

23 A. On November 4, 2005, APS filed an Application for a general rate
24 increase in the amount of \$405 million. On December 5, 2005, Utilities Division
25 ("Staff") Director Ernest G. Johnson filed in the docket a letter indicating that
26 APS would make a revised filing that would incorporate data through September
27 30, 2005. This updated filing ("Amended Application") was made on January 31,
28 2006. The Amended Application, which is the subject of the instant proceeding,
29 seeks a general rate increase of \$454 million, which would result in an average
30 rate increase of 21.34 percent.

1 Additionally, on January 6, 2006, APS filed for an Emergency Interim rate
2 increase of \$299 million, or 14.0, percent.¹ The Interim rate increase request was
3 comprised entirely of the fuel and purchased power-related portion of the general
4 rate increase request at issue in this docket. As part of the Interim request, APS
5 sought the establishment of a new base energy rate of 3.1904 cents per kWh, and
6 proposed to achieve this through the imposition of a surcharge in the amount of
7 1.1161 cents per kWh.

8 During the course of the Interim proceeding, APS reduced the amount of
9 its requested Interim surcharge to 0.8676 cents per kWh, as a result of the
10 reduction in forward fuel costs experienced between November 30, 2005 and
11 February 28, 2006. This change reduced the Interim rate increase request by \$67
12 million to \$232 million.

13 After an extensive hearing on the Interim request, the Commission issued
14 Decision No. 68685 on May 5, 2006, which adopted an Interim PSA Adjustor of
15 0.7 cents per kWh, effective May 1, 2006. I estimate that on an annualized basis,
16 the Interim PSA Adjustor would recover \$187 million.

17 **Q. What is the relationship between the \$454 million rate increase request at**
18 **issue in this docket and the Interim PSA Adjustor that was approved on May**
19 **5, 2006?**

20 **A.** APS's general rate increase request includes the revenues that are now
21 being collected through the Interim PSA Adjustor. In other words, the Interim
22 PSA Adjustor and the full amount of the general rate increase request are *not*

¹ Docket No. E-01345A-06-0009.

1 additive. The Interim PSA Adjustor should terminate at the time the new base
2 rates, adopted as a result of the general rate proceeding, go into effect.²
3

4 **III. Revenue Requirement Adjustments**

5 **A. Fuel Expense**

6 **Q. Please explain your proposed fuel expense adjustment.**

7 A. In the Company's rebuttal testimony filed in the Interim proceeding, APS
8 acknowledged that fuel and purchased power costs had declined by about one-
9 third relative to the November 30, 2005 forward prices that form the basis for the
10 fuel expense used in this general rate case. In his rebuttal testimony filed March
11 13, 2006, Company witness Peter Ewen stated that using the normalized and
12 adjusted test year, the Company's fuel-related expense in the general rate case
13 filing would decline by \$67 million if February 28, 2006 prices held. As these
14 prices have generally held during the subsequent months, I believe that \$67
15 million reduction in fuel expense should be adopted in this proceeding.

16 **Q. On what basis do you conclude that these prices generally held in subsequent
17 months?**

18 A. APS's data response to RUCO 4.11 indicates that on May 24, near the
19 closing date for trades for the June 2006 through May 2007 period, the forward

² From a rate-impact perspective, we can view the annualized revenue increase that was awarded in the Interim proceeding as being applicable toward any general rate increase that APS may be awarded in this docket. For example, if hypothetically, APS were granted the full amount of the general rate increase it is requesting, the *incremental* increase in rates would be the difference between the total increase request of \$454 million and the annualized revenue from the Interim PSA Adjustor of \$187 million, i.e., \$267 million. Mechanically, this would take the form of the Interim PSA Adjustor going from \$187 million per year to zero, and base rates increasing by the fully-requested amount of \$454 million.

1 prices for gas delivered to the San Juan and Permian Basins were closely aligned
2 with the forward prices on February 28 for that same period.³

3 **Q. Has APS reduced its pro-forma fuel expense in this proceeding to reflect the**
4 **reduction in fuel and purchased power costs that occurred after November**
5 **30, 2005?**

6 A. No. In response to a data request from AECC, APS indicated that the
7 Company planned to respond to this issue in its rebuttal testimony to be filed later
8 in this proceeding.

9
10 **B. PWEC Administrative & General Expense**

11 **Q. Please explain your proposed adjustment to PWEC Administrative &**
12 **General (“A&G”) expense.**

13 A. APS witness Laura L. Rockenberger proposes an adjustment that would
14 recognize \$20.4 million in A&G expense for the PWEC generating facilities.
15 These generating units were allowed into APS rate base as a result of the
16 Settlement Agreement approved by the Commission in the previous APS general
17 rate case (Docket No. E-01345A-03-0437).

18 I recommend disallowing \$11.5 million of this expense. The amount of
19 A&G expense for the PWEC units proposed by Ms. Rockenberger greatly
20 exceeds the A&G expense attributed to these units by APS in the prior rate

³ On 2/28/06 the forward price quoted by APS for San Juan Basin gas for June 2006 through May 2007 was \$6.79/MMBTU. On 5/24/06 the price for this same period was \$6.81. On 2/28/06 the forward price quoted by APS for Permian Basin gas was \$7.20/MMBTU. On 5/24/06 the price was \$7.02. On 5/26/06, the closing date for trades for this period, these prices were largely unchanged.

1 proceeding, when the net benefit of including the PWEC units in rate base was
2 evaluated by the parties to the case, and ultimately, by the Commission.

3 **Q. Please elaborate.**

4 A. APS's proposal in the prior rate proceeding to allow the PWEC units into
5 rate base was strongly contested by a number of parties. However, after extensive
6 negotiation, the parties were ultimately able to negotiate a package that allowed
7 these units into rate base with a partial disallowance – an arrangement that was
8 subsequently approved by the Commission after careful scrutiny.

9 A major consideration in resolving this matter was the evaluation of the
10 net benefit to APS customers of allowing the PWEC units into rate base. This
11 evaluation included an analysis of the expenses associated with the units if they
12 were allowed into rate base. In that analysis, APS depicted the annual A&G costs
13 associated with the PWEC units as \$8.797 million.⁴ Had the A&G expense been
14 depicted as \$20.4 million, as Ms. Rockenberger now proposes, it would have
15 negatively impacted the economic evaluation of allowing the PWEC units into
16 rate base, and would reasonably have been expected to impact the final package
17 negotiated by the parties and approved by the Commission. In light of this
18 consideration, I believe it is appropriate to limit the PWEC A&G expense to the
19 level depicted by APS in the prior proceeding as part of the Company's analysis
20 of the net benefits associated with bringing these units into rate base.

21 **Q. What adjustment do you recommend?**

⁴ This amount was shown in APS Schedule DGR-8RB and was discussed on page 58 of Mr. Robinson's rebuttal testimony in response to questions from Commissioner Gleason. Mr. Robinson described the A&G entry as "a fair representation of the A&G cost for the plants."

1 A. My recommended adjustment to PWEC A&G expense reduces APS's
2 proposed revenue requirement by \$11.5 million and is shown on line 12, pages 1
3 and 2, of Attachment KCH-2.

4

5 **C. PWEC Operations and Maintenance ("O&M") Expense**

6 **Q. Please explain your adjustment to PWEC Operations & Maintenance**
7 **("O&M") expense.**

8 A. Ms. Rockenberger proposes an adjustment that would recognize \$26.2
9 million in annual routine O&M expense and \$10 million in normalized overhaul
10 O&M expense for the PWEC generating facilities. These adjustments result in a
11 combined O&M expense of \$36.2 million per year. In the prior rate proceeding,
12 APS depicted the combined O&M expense for the PWEC units to be \$32.7
13 million. For the same reasons discussed with respect to A&G expense, above, I
14 recommend limiting the annual O&M expense for the PWEC units to the amount
15 indicated by APS in the prior rate proceeding, when the case for including the
16 PWEC units in rate base was being advocated by the Company.

17 **Q. Are you suggesting that because the PWEC expenses were depicted to be at a**
18 **particular level when APS advocated for the units' inclusion in rate base**
19 **these expense levels must remained capped or frozen thereafter?**

20 A. No. I recognize that costs change over time. But I also believe it is
21 important that when a case is made to adopt a course of action, and the action is
22 consequently undertaken, continued attention should be paid to the parameters
23 that were used in putting the case forward. That is the situation here. This rate

1 proceeding is following relatively close in time to the decision that allowed the
2 PWEC units into rate base. It is reasonable, at this time, to limit the O&M and
3 A&G expense for these units at the amounts indicated by APS in the prior rate
4 proceeding.

5 **Q. What is the impact of your recommended adjustment?**

6 A. My recommended adjustment to PWEC O&M reduces APS's proposed
7 revenue requirement by \$3.6 million and is shown on line 9, pages 1 and 2, of
8 Attachment KCH-2.

9
10 **D. Accelerated Recovery of Underfunded Pension Liability**

11 **Q. What is APS proposing with respect to accelerated recovery of its
12 underfunded pension liability?**

13 A. Ms. Rockenberger indicates that as of December 31, 2004, PWCC had an
14 underfunded pension liability of \$389 million, of which 92 percent, or \$358
15 million, was attributable to APS. According to Ms. Rockenberger, of this latter
16 amount, \$218 million is "attributable to APS ratepayers;" that is, this amount is
17 the portion not associated with APS personnel employed in support of jointly-
18 owned facilities.

19 Ms. Rockenberger proposes to increase ratepayer funding of pension
20 expense by \$41.2 million for five years to accelerate recovery of this underfunded
21 pension liability. This would be booked as a regulatory liability, which would
22 then be amortized for the subsequent ten years (i.e., 2012-2021) at \$22 million per
23 year.

1 **Q. What is your assessment of this proposal?**

2 A. I recommend that ratepayer funds not be used to fund this accelerated
3 recovery proposal. The \$389 million underfunded pension liability referenced by
4 Ms. Rockenberger is the difference between the Potential Benefit Obligation
5 (“PBO”) of \$1.371 billion and the Fair Value of the assets of \$982 million.
6 However, according to the actuarial study performed for PWCC by Towers Perrin
7 (September 2005), PWCC’s Potential Benefit Obligation includes \$233 million of
8 projected obligation due to future salary increases. Removing these projected
9 future salary increases from the PBO produces the measurement known as the
10 Accumulated Benefit Obligation (“ABO”), which equals \$1.138 billion. The
11 difference between the ABO and the Fair Value of the assets is \$156 million, of
12 which \$87.5 million is associated with APS employees not supporting jointly-
13 owned facilities. This latter amount is much smaller than the \$218 million the
14 Company is seeking to recover over five years through its accelerated recovery
15 proposal.

16 **Q. What is the significance of the ABO?**

17 A. The ABO is the present value of accumulated benefits based on service
18 and pay as of the measurement date. The Perrin Towers study describes ABO as
19 “an important measure of funded position” under FAS 87.⁵

20 **Q. Why do you oppose increasing rates \$41.2 million per year to accelerate**
21 **recovery of the difference between PBO and Fair Value of the assets?**

⁵ Perrin Towers Report, p. MS-6.

1 A. I oppose this proposal because most of the \$41.2 million would be funding
2 a projected increase in benefit obligation that is based on projected salary
3 increases that have not yet occurred. Today's ratepayers should not have to pay
4 millions in current rate increases to recover a projected increase in pension
5 benefits that is associated with salary increases that have not yet been realized.

6 **Q. What is the impact of your recommended adjustment?**

7 A. My recommended adjustment to APS's proposal to accelerate recovery of
8 pension expense reduces the Company's proposed revenue requirement by \$41.2
9 million and is shown on Attachment KCH-3.

10

11 **E. Retention of 10 Percent of Realized Hedging Gains and Losses**

12 **Q. What has APS proposed with respect to the treatment of hedging gains and**
13 **losses?**

14 A. APS has an active hedging program through which the Company manages
15 its exposure to fuel price volatility. Aside from the Company's obligation to
16 implement prudent procurement practices in the interest of its customers, APS has
17 a direct financial incentive to secure hedging gains: ten percent of all energy costs
18 above or below the baseline established for the calculation of the PSA are either
19 absorbed by, or accrue to, the Company. Consequently, in between rate cases, ten
20 percent of all hedging gains (or losses) flow to APS.

21 As explained in the direct testimony of Donald Robinson, APS is
22 proposing to modify this arrangement by excluding ten percent of realized
23 hedging gains and losses from the calculation of the PSA prior to the 90/10

1 sharing, as well as excluding ten percent of the hedging gains and losses from the
2 calculation of the Base Fuel Recovery Amount. In the current proceeding,
3 consistent with this proposal, APS has excluded ten percent of the gains from
4 hedging from its calculation of its proposed Base Fuel Recovery Amount of
5 3.1904 cents per kWh. This exclusion is responsible for \$18.8 million of APS's
6 proposed rate increase.⁶

7 **Q. What is your assessment of this proposal?**

8 A. I recommend that it be rejected. The PSA mechanism was designed with a
9 90/10 sharing arrangement to provide APS with a direct financial incentive to
10 manage its fuel costs as capably as possible. This sharing arrangement applies to
11 hedging gains and losses just as it does to fuel and purchased power costs. I see
12 no good reason to alter the sharing percentage piecemeal by carving out a special
13 retention award for APS's hedging gains. Moreover, doing so exacerbates the
14 impact of an already-large rate increase proposal in this case.

15 **Q. What is the impact of your recommended adjustment?**

16 A. At APS's currently-proposed Base Fuel Recovery Amount of 3.1904 cents
17 per kWh, my recommended adjustment reduces APS's proposed revenue
18 requirement by \$18.8 million. However, at the reduced Base Fuel Recovery
19 Amount associated with a \$67 million reduction in fuel expense, which I
20 recommend above, the elimination of the hedging-gains proposal results in an
21 \$8.0 million reduction in APS's proposed revenue requirement. This lower

⁶ APS Response to AECC Data Request 5.2.

1 amount is due to the fact that, at lower fuel costs, APS's gains from hedging are
2 reduced, all other things being equal.

3
4 **IV. Other Proposed Changes to the PSA**

5 **Q. In addition to the increased retention of hedging gains and losses, what other**
6 **changes has APS proposed to the PSA mechanism?**

7 A. As discussed in Mr. Robinson's direct testimony,⁷ APS proposes that:

8 (1) The Total Fuel Cost Cap be permanently eliminated or substantially raised;

9 (2) The cumulative 4 mill cap on the PSA adjustment be changed to an annual

10 cap; and

11 (3) The 90/10 cost sharing be eliminated for both renewable resources and the
12 fixed costs of PPAs acquired through competitive bidding or similar competitive
13 processes.

14 **Q. What is your assessment of these three proposals?**

15 A. I recommend adoption of the first two proposals and recommend rejection
16 of the third.

17 **Q. Why do you support the first two proposals?**

18 A. The first two proposals are consistent with the terms of the PSA
19 incorporated in the Settlement Agreement that was negotiated in the prior rate
20 case, and which Phelps Dodge and AECC supported. Phelps Dodge and AECC
21 continue to support the PSA mechanism as originally proposed.

⁷ See especially p. 22 for Mr. Robinson's summary.

1 **Q. Why do you oppose the elimination of the 90/10 cost sharing for renewable**
2 **resources and the fixed costs of PPAs acquired through competitive**
3 **procurement?**

4 A. The application of the 90/10 sharing mechanism to renewable resources
5 and the fixed costs of PPAs was part of the overall package negotiated and
6 approved when the PSA mechanism was put forward to the Commission as part
7 of the Settlement Agreement in the previous general rate case. The parties had
8 intended the PSA to be in place at least five years. I do not believe it is reasonable
9 to change the balance of the equities in the PSA prior to the end of that five-year
10 term absent a compelling public interest – and no such compelling public interest
11 exists here.

12 With respect to the Company's obligation to purchase renewable energy,
13 on pages 24-25 of his direct testimony, Mr. Robinson asserts that:

14 In furtherance of [its] commitment to renewable energy, in Decision No.
15 67744 the Commission required APS to issue a Renewable RFP, seeking at
16 least 100 MW and 250,000 MWhs of energy from renewable resources. It did
17 so despite the fact that in many of its present applications renewable energy is
18 significantly more expensive than conventional resources. Consistent with this
19 Commission policy, APS should not be penalized by an automatic 10% cost
20 disallowance when it acts in furtherance of that public policy by securing
21 renewable resources that are not least-cost resources.
22

23 What Mr. Robinson omits from this assertion is the fact that the
24 requirement to issue a Renewable RFP, and to seek at least 100 MW and 250,000
25 MWhs of energy from renewable resources, is an obligation to which APS
26 voluntarily consented in the Settlement Agreement it signed; the Commission did
27 not impose these requirements – APS and the other parties to the agreement

1 presented these provisions to the Commission and sought the Commission's
2 approval, which the Commission granted.

3 At the same time APS was agreeing to increased procurement of
4 renewable resources, APS was agreeing that the 90/10 sharing would apply to
5 renewable resources and the fixed costs of PPAs, all as part of having the PSA
6 mechanism adopted. Mr. Robinson now attempts to treat these components of the
7 90/10 sharing requirement in isolation, and argues for their removal from the
8 sharing provision. I disagree with this approach. These components of the 90/10
9 sharing requirement should not be viewed in isolation and removed piecemeal in
10 this case.

11 **Q. Are there other reasons for your opposition to this part of APS's proposal?**

12 A. Yes. I believe that APS's argument with respect to the fixed costs of PPAs
13 should also be rejected on its merits. Mr. Robinson claims that it is appropriate to
14 exempt the fixed cost component associated with market-acquired PPAs from the
15 sharing provision because: (1) APS may be acquiring the gas used by the
16 merchant generator, and thus would have the same incentive to do so prudently as
17 it would for the Company's own units; and (2) an exemption would place PPAs
18 on the same footing with regard to cost-recovery as APS-owned generation.

19 What this argument fails to acknowledge is that the inclusion of the fixed-
20 cost components of a PPA in an *energy* adjustor is, in the first instance, a
21 significant benefit to APS. Mr. Robinson's argument that PSAs should be placed
22 on an equal footing with APS-owned generation is justification for the removal of
23 the fixed-cost components of a PPA from the PSA *entirely* – not just from the

1 sharing mechanism. The most compelling aspect of this comparison is the fact
2 that the fixed costs of APS units are not part of the PSA calculation – changes in
3 the recovery of these costs can only be implemented in a rate proceeding. It
4 follows, then, that placing the fixed-cost recovery of APS generation and PPA
5 generation on an equal footing would more appropriately involve excluding the
6 fixed-cost components of PPAs from the PSA all together.

7 **Q. Are you proposing that the fixed-cost components of PPAs be excluded from**
8 **the PSA?**

9 A. No. I am opposing the exclusion of these components from the 90/10
10 sharing arrangement. I am not proposing to change the terms of the PSA
11 negotiated in the Settlement Agreement.

12
13 **V. Proposed Environmental Improvement Charge**

14 **Q. What has APS proposed with respect to an Environmental Improvement**
15 **Charge?**

16 A. As explained in the direct testimony of Edward Z. Fox and Gregory A.
17 DeLizio, APS is seeking approval of an Environmental Improvement Charge
18 (“EIC”), an adjustment mechanism that would recover projected costs associated
19 with installing and maintaining environmental upgrades at APS’s generation
20 facilities. According to the Company’s proposal, the costs recovered under the
21 EIC would include, but not be limited to, return on capital, depreciation, O&M
22 expenses, property taxes, and associated income taxes. APS proposes that the first
23 installment of the EIC be approved as part of this proceeding. APS requests

1 adoption of a .0152 cent-per-kWh EIC that would raise \$4.3 million to recover
2 planned costs associated with environmental improvements in the Company's
3 Cholla generating facility.

4 **Q. What is your assessment of this proposal?**

5 A. Allowing a "stand-alone" rate adjustment for incremental environmental
6 improvement costs is an example of "single-issue ratemaking," in which a single
7 item is permitted to impact rates in isolation from all other rate considerations. In
8 contrast, when regulatory commissions determine the appropriateness of a rate or
9 charge that a utility seeks to impose on its customers, the standard practice is to
10 review and consider all relevant factors, rather than just a single factor. Unless it
11 can be shown to involve a compelling public interest, single-issue ratemaking is
12 generally not sound regulatory policy, as it ignores the multitude of other factors
13 that otherwise influence rates, some of which could, if properly considered, move
14 rates in the opposite direction from the single-issue change. There is no
15 compelling reason to permit single-issue ratemaking in this instance.

16 **Q. Are there circumstances that warrant exceptions to preclusions against single-**
17 **issue ratemaking?**

18 A. There are certain types of cost increases that regulatory commissions have
19 come to allow without the benefit of conducting a general rate case. Because such
20 exceptions constitute a form of single-issue ratemaking, it is not unusual for
21 regulatory commissions to identify criteria that must be met for such treatment to
22 be allowed, such as whether the costs in question exhibit volatility and/or whether
23 the costs are largely outside the utility's control. In light of such criteria, the

1 single-issue adjustments most commonly adopted are commodity and power cost
2 adjustment mechanisms, such as the PSA mechanism approved by the Commission
3 in APS's last general rate proceeding.

4 **Q. Do environmental improvement costs fit the description of "costs that are**
5 **outside the utility's control" or "costs that exhibit volatility?"**

6 A. Not really. While APS is subject to current and future provisions
7 governing environmental quality, these provisions are long-term in nature and do
8 not change from month to month the way fuel costs change. Moreover, as is
9 evident in the testimony of Mr. Fox, APS intends to bring a significant amount of
10 judgment to bear on the nature and timing of the investments it will undertake, as
11 the Company works to stay *ahead* of the regulatory curve through a dialogue with
12 regulators and the environmental community.

13 **Q. Are you opposed to APS being able to recover prudently-incurred**
14 **environmental improvement costs?**

15 A. No, I am not. I am opposed to adoption of single-issue adjustment
16 mechanisms absent a compelling public interest. The appropriate forum for
17 establishing rates to recover prudently-incurred utility investment is a general rate
18 proceeding in which all cost and revenue information can be considered.

19
20 **VI. Renewable Energy Standard and Tariff**

21 **Q. In a letter to the docket dated July 17, 2006, Commissioner Kris Mayes asked**
22 **the parties to provide testimony on incorporating the Renewable Energy**

1 **Standard and Tariff (“REST”) into this case. What is your response to**
2 **Commissioner Mayes’ letter?**

3 A. AECC participated actively in the Environmental Portfolio Standard
4 (“EPS”) workshop and REST rulemaking processes. AECC supports the
5 utilization of cost-effective renewable energy, but has expressed concerns about
6 the unknown cost impacts of increasing the REST Portfolio Percentage to 2.5
7 percent by 2010, 5 percent by 2015 and 15 percent by 2025, and has proposed the
8 adoption of performance standards linking future increases in the Portfolio
9 Percentage to demonstrated improvements in performance or reductions in cost-
10 per-kWh.

11 With respect to specific REST Surcharges, AECC has indicated its support
12 for the specific charges and rate design enumerated in the Sample Tariff included
13 in Attachment A to Decision No. 68566. The Sample Tariff states:

14 Unless otherwise ordered by the Commission the Renewable Energy
15 Standard Surcharge shall be assessed monthly to every retail electric
16 service. This monthly assessment shall be the lesser of \$.00498 per kWh
17 or:

- 18
19 A. For residential customers, \$1.05 per service,
20 B. For non-residential customers, \$39.00 per service,
21 C. For non-residential customers whose metered demand is 3,000 kW or
22 more for three consecutive months, \$117.00 per service,
23 D. For non-metered services, the lesser of (1) the load profile or otherwise
24 estimated kWh required to provide the service in question or (2) the
25 service’s contract kWh shall be used in the calculation of the surcharge.
26

27 AECC would support adoption of these specific charges in this docket,
28 including the caps enumerated in items A through D. AECC does not support
29 higher charges or changes to the caps specified in the Sample Tariff.

1

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

3 **A. Yes, it does.**

KEVIN C. HIGGINS
Principal, Energy Strategies, L.L.C.
215 South State St., Suite 200, Salt Lake City, UT 84111

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

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

“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.

“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.

“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.

“Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Power 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 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. Direct testimony submitted July 8, 1996.

“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, 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 present. 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.

1826251.1

AECC Adjustments to PWEC O&M and A&G Expenses

Total Company
(Thousands of Dollars)

Line No.	Description	(a) APS Amount in Filing	(b) AECC Recommended Amount	(c) = (b) - (a) AECC Adjustment
1	REVENUES:			
2	Operating Revenue			
3	Fuel and Purchased Power Expense			
4	Operating Revenue less Fuel and Purchased Power Expenses			
5	EXPENSES:			
6	Other Operating Expense			
7	Operations Excluding Fuel & Purchased Power Expenses	26,204 /1	21,353 /2	(4,851)
8	Maintenance (Overhaul)	10,000 /1	11,238 /2	1,238
9	O&M Subtotal	36,204	32,591	(3,613)
10	Depreciation and Amortization			
11	Amortization of Gain			
12	Administrative and General	20,415 /1	8,797 /2	(11,618)
13	Other Taxes			
14	Total	56,619	41,388	(15,231)
15	OPERATING INCOME (before income tax)	(56,619)	(41,388)	15,231
16	Interest Expense			
17	Taxable Income	(56,619)	(41,388)	15,231
18	Income Tax @ 39.05%	(22,110)	(16,162)	5,948
19	OPERATING INCOME AFTER TAX	(34,509)	(25,226)	9,283

Data Sources:

Note 1 - APS Workpaper LLR_WP13, pp. 2 & 3 of 11.

Note 2 - APS Schedule DGR-8RB, p. 3 of 4 in ACC Docket E-01345A-03-0437.

AECC Adjustments to PWEC O&M and A&G Expenses
(Thousands of Dollars)

<u>Line No.</u>	<u>Description</u>	(a) <u>Total Company Adjustment</u>	(b) ACC <u>Jurisdictional Adjustment</u>
1	REVENUES:		
2	Operating Revenue	0	0
3	Fuel and Purchased Power Expense	0	0
4	Operating Revenue less Fuel and Purchased Power Expenses	<u>0</u>	<u>0</u>
5	EXPENSES:		
6	Other Operating Expense		
7	Operations Excluding Fuel & Purchased Power	(4,851)	(4,795)
8	Maintenance (Overhaul)	1,238	1,224
9	O&M Subtotal	<u>(3,613)</u>	<u>(3,571)</u>
10	Depreciation and Amortization	0	0
11	Amortization of Gain	0	0
12	Administrative and General	(11,618)	(11,484)
13	Other Taxes	0	0
14	Total	<u>(15,231)</u>	<u>(15,056)</u>
15	OPERATING INCOME (before income tax)	15,231	15,056
16	Interest Expense	0	0
17	Taxable Income	<u>15,231</u>	<u>15,056</u>
18	Income Tax @ 39.05%	5,948	5,879
19	OPERATING INCOME AFTER TAX	9,283	9,176
20	Gross Revenue Conversion Factor		1.640703
21	Impact on Revenue Requirement (-Ln 19 x Ln 20)		(15,056)

AECC Adjustments to Pension Expense
Total Company
(Thousands of Dollars)

Line No.	Description	(a) APS Amount in Filing	(b) AECC Recommended Amount	(c) = (b) - (a) AECC Adjustment
1	REVENUES:			
2	Operating Revenue			
3	Fuel and Purchased Power Expense			
4	Operating Revenue less Fuel and Purchased Power Expenses			
5	EXPENSES:			
6	Other Operating Expense			
7	Operations Excluding Fuel & Purchased Power Expenses	43,695 /1	0	(43,695)
8	Maintenance (Overhaul)			
9	O&M Subtotal	<u>43,695</u>	<u>0</u>	<u>(43,695)</u>
10	Depreciation and Amortization			
11	Amortization of Gain			
12	Administrative and General			
13	Other Taxes			
14	Total	<u>43,695</u>	<u>0</u>	<u>(43,695)</u>
15	OPERATING INCOME (before imcome tax)	(43,695)	0	43,695
16	Interest Expense			
17	Taxable Income	<u>(43,695)</u>	<u>0</u>	<u>43,695</u>
18	Income Tax @ 39.05%	(17,063)	0	17,063
19	OPERATING INCOME AFTER TAX	(26,632)	0	26,632

Data Sources:

Note 1 - APS Workpaper LLR_WP22, pp. 2 of 2.

AECC Adjustments to Pension Expense
(Thousands of Dollars)

Line No.	Description	(a) Total Company Adjustment	(b) ACC Jurisdictional Adjustment
1	REVENUES:		
2	Operating Revenue	0	0
3	Fuel and Purchased Power Expense	0	0
4	Operating Revenue less Fuel and Purchased Power Expenses	<u>0</u>	<u>0</u>
5	EXPENSES:		
6	Other Operating Expense		
7	Operations Excluding Fuel & Purchased Power	(43,695)	(41,166)
8	Maintenance (Overhaul)	0	0
9	O&M Subtotal	<u>(43,695)</u>	<u>(41,166)</u>
10	Depreciation and Amortization	0	0
11	Amortization of Gain	0	0
12	Administrative and General	0	0
13	Other Taxes	0	0
14	Total	<u>(43,695)</u>	<u>(41,166)</u>
15	OPERATING INCOME (before income tax)	43,695	41,166
16	Interest Expense	0	0
17	Taxable Income	<u>43,695</u>	<u>41,166</u>
18	Income Tax @ 39.05%	17,063	16,075
19	OPERATING INCOME AFTER TAX	26,632	25,091
20	Gross Revenue Conversion Factor		1.640703
21	Impact on Revenue Requirement (-Ln 19 x Ln 20)		(41,166)