

ORIGINAL



0000187943

RECEIVED
AZ CORP COMMISSION
DOCKET CONTROL

2018 APR 27 P 3: 22

1 Thomas A. Loquvam
2 Thomas L. Mumaw
3 Melissa M. Krueger
4 Pinnacle West Capital Corporation
5 400 North 5th Street, MS 8695
6 Phoenix, Arizona 85004
7 Tel: (602) 250-3630
8 Fax: (602) 250-3393
9 E-Mail: Thomas.Loquvam@pinnaclewest.com
10 Thomas.Mumaw@pinnaclewest.com
11 Melissa.Krueger@pinnaclewest.com
12
13 Attorneys for Arizona Public Service Company

Arizona Corporation Commission

DOCKETED

APR 27 2018

DOCKETED BY

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

TOM FORESE, Chairman
BOB BURNS
ANDY TOBIN
BOYD DUNN
JUSTIN OLSON

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-16-0036

**ARIZONA PUBLIC SERVICE
COMPANY'S REQUEST FOR
APPROVAL OF A SELECTIVE
CATALYTIC REDUCTION
ADJUSTMENT**

IN THE MATTER OF FUEL AND
PURCHASED POWER PROCUREMENT
AUDITS FOR ARIZONA PUBLIC
SERVICE COMPANY.

DOCKET NO. E-01345A-16-0123

25
26
27
28

1 **I. INTRODUCTION**

2 As agreed to in APS's general rate case, Decision No. 76295 (August 18, 2017),
3 APS submits this request for approval of the costs associated with the required
4 installation of Selective Catalytic Reduction (SCR) equipment on Four Corners Power
5 Plant (Four Corners) Units 4 and 5. APS requests that the Commission approve
6 Adjustment Schedule FCA-1 (SCR Adjustment) to permit recovery of a \$67.5 million
7 annual revenue requirement.¹ This request is consistent with the projections provided
8 during the rate case and reflects the costs associated with APS's share of the installation
9 of SCRs on Units 4 and 5 and the related deferred costs as authorized in Decision No.
10 76295.

11 This request is supported by the attached testimonies of Ms. Barbara Lockwood,
12 Ms. Elizabeth Blankenship and Mr. Leland Snook as Exhibits 1-3, respectively. Ms.
13 Lockwood provides testimony supporting the prudence of this request, as well as the
14 history and importance of this plant to Arizona. Ms. Blankenship describes the various
15 rate base and operating income adjustments that comprise the \$67.5 million revenue
16 requirement, demonstrates that the operating income resulting from this rate adjustment
17 will not result in a return on rate base in excess of what was authorized in Decision No.
18 76295, and explains how the SCR Adjustment is calculated. Mr. Snook provides
19 testimony regarding bill impacts associated with this rate adjustment and why the
20 weighted average cost of capital is the appropriate rate of return for this incremental rate
21 base adjustment.

22
23 **II. THE NEED FOR THE SCRS**

24 To comply with the Regional Haze Regulations authorized under the federal
25 Clean Air Act and the EPA's Federal Implementation Plan (77 FR 51619 August 24,
26 2012), APS was required to install SCRs on Units 4 and 5 of Four Corners. SCRs or

27

¹ The revenue requirement has been updated to reflect the newly enacted federal tax legislation.
28

1 Selective Catalytic Reduction equipment reduce nitrogen oxides (NOx) from the Plant's
2 emissions. APS was required to install SCRs because the Regional Haze Regulations
3 required use of Best Available Retrofit Technology (BART) to eliminate current and
4 prevent future man-made visibility impairments, otherwise known as haze, in certain
5 geographic locations. The EPA's Federal Implementation Plan determined that SCRs
6 were the BART to reduce the emissions of NOx at Four Corners. The SCRs will permit
7 APS to reduce NOx emissions by more than 80%.

8 Under the Consent Decree entered on August 17, 2015, APS is required to have
9 the first SCR in operation by March 31, 2018. The second SCR must be in operation by
10 July 31, 2018. APS is on track to meet the compliance deadlines set by the Consent
11 Decree. The Company has finished installing the SCR equipment on Unit 5 and it
12 became operational on December 17, 2017. APS is in the process of completing the
13 installation of SCR equipment on Unit 4 and expects the Unit 4 equipment to be
14 completed and fully operational by the end of April 2018.



Unit 5 SCR Support Structure



Unit 5 SCR

1 The size and complexity of this project cannot be understated. To date, APS has
2 spent more than 2 million labor hours on the SCR installation. There have been over
3 4,500 engineering drawings, 166 pier foundations drilled, 7,000 tons of steel installed,
4 6,000 cubic yards of concrete poured, and 5,400 tons of ductwork installed. A computer
5 simulation demonstrating installation of the SCRs is contained on the CD attached as
6 BDL-1 to Ms. Lockwood’s testimony.
7



16 Unit 4 SCR Tie-in Outage Construction
17

18 Installing SCRs at Four Corners allows this important resource to continue its
19 long history of providing cost effective electricity for Arizona customers and the
20 Southwest. The value of Four Corners to APS customers was perhaps highlighted by the
21 Commission in Decision No. 73130 (April 24, 2012), wherein Four Corners Units 4 and
22 5 were described as a “unique value” and “a reliable, low-cost generation resource.” *Id.*
23 at 23 and 31.

24 The plant is operated by APS, but is jointly owned by APS, TEP, SRP and others.
25 APS is a 63% owner of Units 4 and 5 and receives 970 MW of capacity from this
26 important resource. This Request reflects APS’s share of the costs of installing the
27 SCRs.
28

1 **III. DECISION NO. 76295 AUTHORIZED A DEFERRAL AND**
2 **ADJUSTMENT PROCEEDING**

3 Due to the timing of the SCR installation, APS was unable to include the SCR
4 installation costs as part of the post-test year plant included in the Company's fair value
5 rate base by Decision No. 76295. APS did, however, request an accounting order for the
6 SCRs in its original rate application as well as a mechanism for a step increase when the
7 SCRs are placed into service. Decision No. 76295 authorized the requested deferral
8 order and set forth a process for including APS's incremental investment in the
9 installation of SCRs in rates no later than January 1, 2019. These authorizations were an
10 integral part of the Settlement Agreement underlying Decision No. 76295 and permitted
11 the Company to agree to a stay out and other concessions in that proceeding.

12 The deferral order in Decision No. 76295 authorized the Company to defer all
13 non-fuel costs (defined as "all O&M, property taxes, depreciation, and a return at APS's
14 embedded cost of debt in this proceeding") of owning, operating and maintaining the
15 SCRs for possible later recovery through rates. *See* Decision No. 76295 at 108. Decision
16 No. 76295 also kept this current Docket open for the sole purpose of allowing APS to
17 file this Request to adjust rates to reflect the revenue requirement and deferral costs
18 associated with the SCRs. *Id.* at 107.

19 **IV. RELIEF REQUESTED**

20 APS seeks to recover in rates those items that the Commission identified in the
21 rate case, including the costs associated with the installation of SCRs at Units 4 and 5 of
22 Four Corners, and the deferral balance authorized in Decision No. 76295. The total
23 annual revenue requirement for which APS seeks approval to recover in rates is \$67.5
24 million. This annual revenue requirement increase was calculated using (1) APS's
25 Weighted Average Cost of Capital established in Decision No. 76295 of 7.85% and the
26 0.8% return on the fair value increment (which increment was zero in this instance) also
27

1 found in that same Decision²; (2) an amortization over five years of the deferral, which
2 was itself calculated using the embedded cost of debt established in Decision No. 76295
3 of 5.13%; and (3) a 5% depreciation rate on the SCRs based on the straight-line method
4 using end-of-life assumptions of 2038, consistent with the identical end of service
5 assumption for Four Corners Units 4 and 5 used in Decision No. 76295. As explained by
6 APS witness Elizabeth Blankenship, this revenue requirement reflects both the rate base
7 adjustments and non-fuel expense effects associated with the installation of the SCRs
8 and amortization of the deferral balance.

9 APS requests that this revenue requirement be recovered as an equal percentage
10 adjustment to the base rate portion of customers' bills.³ That would equate to an
11 approximate 2% customer base rate bill impact. Additionally, APS requests that the SCR
12 Adjustment become effective as soon as possible, but no later than January 1, 2019, as
13 contemplated by the Settlement Agreement and Decision No. 76295. The Agreement
14 directed parties to use "good faith efforts to process this rate adjustment request," and
15 APS requests this proceeding be concluded as soon as possible.

16
17 **V. INFORMATION SUPPORTING THE REQUEST**

18 Consistent with Section 9.3 of the Settlement Agreement adopted in Decision No.
19 76295, this request contains (1) APS's most current balance sheet, attached as EAB-1 to
20 Ms. Blankenship's testimony; (2) APS's most current income statement, attached as
21 EAB-2 to Ms. Blankenship's testimony; (3) a Competitively Confidential earnings
22 schedule demonstrating that the relief in this Request will not result in a return on rate
23 base in excess of what the Commission authorized in Decision No. 76295, attached as
24 EAB-3 to Ms. Blankenship's testimony⁴; (4) a revenue requirement calculation that

25 _____
26 ² APS claims no additional fair value increment for the SCRs. Thus, fully recognizing the fair value
found in Decision No. 76295 results in a fair value rate of return on the SCRs of 7.85%.

27 ³ For AG-X customers, the 2% will be applied only to the APS portion of an AG-X customer's bill.

28 ⁴ Attachment EAB-3 to Ms. Blankenship's testimony contains competitively/highly confidential
information and has been filed under seal for the Commission's confidential review.


1 includes the amortization of any deferred costs, attached as EAB-4 through EAB-8 to
2 Ms. Blankenship's testimony; (5) an adjustment schedule that recovers the rate base and
3 non-fuel related expenses associated with the installation of SCRs at Units 4 and 5,
4 attached as LRS-1 to Mr. Snook's testimony; and (6) a typical bill analysis under present
5 and filed rates, attached as LRS-2 to Mr. Snook's testimony.

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

VI. CONCLUSION

APS respectfully requests that the Commission grant APS's requested relief by approving the SCR Adjustment as soon as possible, but no later than January 1, 2019, as contemplated by the Settlement Agreement and Decision No. 76295.

RESPECTFULLY SUBMITTED this 27th day of April 2018.

By: 
Thomas A. Loquvam
Thomas L. Mumaw
Melissa M. Krueger
Attorneys for Arizona Public Service Company

1 ORIGINAL and fifteen (15) copies
2 of the foregoing filed this 27 day of
3 April 2018, with:

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

8 COPY of the foregoing emailed/mailed
9 this 27 day of April 2018, to:

10 Elijah Abinah
11 Utilities Division
12 Arizona Corporation Commission
13 1200 W. Washington
14 Phoenix, AZ 85007

Albert Acken
Ryley Carlock & Applewhite
One N. Central Ave., Ste 1200
Phoenix, AZ 85004-4417

15 Ann-Marie Anderson
16 Wright Welker & Paoule, PLC
17 10429 South 51st Street, Suite 285
18 Phoenix, AZ 85009

Brendon Baatz
Manager
ACEEE
529 14th Street N.W., Suite 600
Washington, DC 20045-1000

19 Stephen Baron
20 Consultant
21 J. Kennedy & Associates
22 570 Colonial Park Drive, Suite 305
23 Roswell, GA 30075

Patrick Black
Attorney
Fennemore Craig
2394 East Camelback Road, Suite 600
Phoenix, AZ 85016

24 Kurt Boehm
25 Attorney
26 Boehm, Kurtz & Lowry
27 36 East Seventh Street, Suite 1510
28 Cincinnati, OH 45202

Bradley Carroll
Assistant General Counsel, State
Regulatory
Tucson Electric Power Company
88 East Broadway Blvd.
Mail Stop HQE910
P.O. Box 711
Tucson, AZ 85702

John B. Coffman
John B. Coffman, LLC
871 Tuxedo Blvd.
St. Louis, MO 63119

Steve Chriss
Senior Manager, Energy Regulatory
Analysis
Walmart Stores
2001 Southeast 10th Street
Bentonville, AR 72716-5530

1 Brittany L. DeLorenzo
2 Corporate Counsel
3 IO DATA CENTERS, LLC
4 615 N. 48th St.
5 Phoenix, AZ 85008

6 Greg Eisert
7 Director Government Affairs
8 Chairman
9 Sun City Homeowners Association
10 10401 W. Coggins Drive
11 Sun City, AZ 85351

12 Giancarlo Estrada
13 Kamper Estrada, LLP
14 3030 N. Third St., Suite 770
15 Phoenix, AZ 85012

16 Denis M. Fitzgibbons
17 FITZGIBBONS LAW OFFICES,
18 PLC
19 P.O. Box 11208
20 Casa Grande, AZ 85230

21 Jason D. Gellman
22 Snell & Wilmer LLP
23 400 E. Van Buren Street, Suite 800
24 Phoenix, AZ 85004

25 Meghan Grabel
26 Attorney
27 Osborn Maledon, P.A.
28 2929 North Central Avenue
Phoenix, AZ 85012

29 Garry D. Hays
30 Attorney
31 Law Offices of Garry D. Hays, PC
32 2198 E Camelback Rd, Suite 305
33 Phoenix, AZ 85016

34 Kevin Hengehold
35 Energy Program Director
36 Arizona Community Action
37 Association
38 2700 n. 3rd St., Suite 3040
Phoenix, AZ 85004

Jody Cohn
Attorney
Boehm, Kurtz & Lowry
36 E. Seventh St., Suite 1510
Cincinnati, OH 45202

Jim Downing
PO Box 70
Salome, AZ 85648

Nicholas Enoch
Attorney
Lubin & Enoch, P.C.
349 North Fourth Ave.
Phoenix, AZ 85003

Patricia Ferre
P.O. Box 433
Payson, AZ 85547

Richard Gayer
526 W. Wilshire Dr.
Phoenix, AZ 85003

Al Gervenack
Director
Property Owners & Residents
Association
13815 Camino del Sol
Sun City West, AZ 85372

Tom Harris
Chairman
Arizona Solar Energy Industries
Association
2122 W. Lone Cactus Dr. Suite 2
Phoenix, AZ 85027

Chris Hendrix
Director of Markets & Compliance
Wal-Mart Stores, Inc.
2011 S.E. 10th Street
Bentonville, AR 72716

1 Timothy Hogan
2 Attorney
3 Arizona Center for Law in the Public
4 Interest
5 514 W. Roosevelt St.
6 Phoenix, AZ 85003

7 Thomas A. Jerigan
8 139 Barnes Drive, Suite 1
9 Tyndall AFB, FL 32403

10 Briana Kobar
11 Program Director
12 Vote Solar
13 360 22nd Street, Suite 730
14 Oakland, CA 94612

15 Curt Ledford
16 McDonald Carano Wilson, LLP
17 2300 West Sahara Avenue, Suite
18 1200
19 Las Vegas, NV 89102

20 Craig Marks
21 Attorney
22 AURA
23 10645 N. Tatum Blvd. Ste. 200-676
24 Phoenix, AZ 85028

25 Jay Moyes
26 Moyes Sellers & Hendricks Ltd.
27 1850 N. Central Ave., Suite 1100
28 Phoenix, AZ 85004

Michael Patten
Attorney
Snell & Wilmer LLP
One Arizona Center
400 E. Van Buren Street, Suite 1900
Phoenix, AZ 85004-2202

Ebony Payton
139 Barnes Drive, Suite 1
Tyndall AFB, FL 32403

Kevin Higgins
Energy Strategies, LLC
215 South State Street, Suite 200
Salt Lake City, UT 84111

Steve Jennings
AARP
16165 N. 83rd Ave, Suite 201
Peoria, AZ 85382

Alan Kierman
Director of Real Estate & Special
Counsel
IO Data Centers
615 N. 48th Street
Phoenix, AZ 85008

Andy Kvesic
Legal Division
Arizona Corporation Commission
1200 W. Washington
Phoenix, AZ 85007

Samuel L. Lofland
Ryley Carlock & Applewhite
One N. Central Ave., Ste 1200
Phoenix, AZ 85004-4417

Robert Miller
Utilities Liaison Committee Chairman
Property Owners and Residents
Association

Jason Moyes
Moyes Sellers & Hendricks Ltd.
1850 N. Central Ave., Suite 1100
Phoenix, AZ 85004

Greg Patterson
Attorney
Munger Chadwick
916 West Adams Suite 3
Phoenix, AZ 85007

1 Daniel Pozefsky
2 Chief Counsel
3 RUCO
4 1110 W. Washington, Suite 220
5 Phoenix, AZ 85007

6 Pat Quinn
7 AURA
8 5521 E. Cholla St.
9 Scottsdale, AZ 85254

10 Court Rich
11 Attorney
12 Rose Law Group, pc
13 7144 East Stetson Drive, Suite 300
14 Scottsdale, AZ 85251

15 Lawrence Robertson, Jr.
16 Attorney At Law
17 210 West Continental Road
18 Suite 216A
19 Green Valley, AZ 85622

20 Jeff Schlegel
21 SWEEP
22 1167 W. Samalayuca Dr.
23 Tucson, AZ 85704

24 Sheryl A. Sweeney
25 Ryley Carlock & Applewhite
26 One N. Central Ave., Ste 1200
27 Phoenix, AZ 85004-4417

28 Emily A. Tornabene
Lunin & Enoch, PC
349 North Fourth Avenue
Phoenix, AZ 85003

Paul J. Walker
Executive Director
ConservAmerica
971 South Centerville Road
PMB 139
Sturgis, MI 49091

Robert L. Pickels, Jr.
Sedona City Attorney's Office
102 Roadrunner Drive
Sedona, AZ 86336

Steven Puck
Director Government Affairs
Sun City Homeowners Association
10401 W. Coggins Drive
Sun City, AZ 85351

Kaitlyn A. Redfield-Ortiz
Lubin & Enoch, P.C.
349 N. 4th Avenue
Phoenix, AZ 85003

Rob Robbins
President
Property Owners & Residents
Association
13815 Camino del Sol
Sun City West, AZ 85372

Timothy Sabo
Snell & Wilmer
400 East Van Buren
Suite 1900
Phoenix, AZ 85004

Thomas E. Stewart
General Manager
Granite Creek Power & Gas LLC
5316 East Voltaire Avenue
Scottsdale, AZ 85254-3643

Gregory W. Tillman
Senior Manager, Energy Regulatory
Analysis
Wal-Mart Stores, Inc.
2011 S.E. 10th Street
Bentonville, AR 72716

Scott Wakefield
Attorney
Hienton & Curry, P.L.L.C.
5045 N. 12th Street, Suite 110
Phoenix, AZ 85014-3302

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
27
28

Charles Wesselhoft
Deputy County Attorney
Pima County
32 North Stone Ave., Suite 2100
Tucson, AZ 85701

Ken Wilson
Western Resource Advocates
2260 Baseline Road, Suite 200
Boulder, CO 80302

Gary Yaquinto
President & CEO
Arizona Investment Council
2100 N. Central Avenue, Suite 210
Phoenix, AZ 85004

Ellen Zuckerman
Senior Associate
4231 E. Catalina Drive
Phoenix, AZ 85018



Anthony Wanger
President
IO Data Centers
615 N. 48th Street
Phoenix, AZ 85008

Karen White
Attorney
Air Force Utility Law Field Support
Center
AFLOA/JACL-ULFSC, 139 Barnes
Drive
Tyndall AFB, FL 32403

Warren Woodward
200 Sierra Road
Sedona, AZ 86336

Cynthia Zwick
2700 N. 3rd Street, Suite 3040
Phoenix, AZ 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
27
28

DIRECT TESTIMONY OF BARBARA D. LOCKWOOD
On Behalf of Arizona Public Service Company
Docket Nos. E-01345A-16-0036 and E-01345A-16-0123

April 27, 2018

Table of Contents

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
27
28

I. INTRODUCTION..... 1

II. SUMMARY 2

III. CONNECTION OF PRESENT REQUEST TO DECISION NO. 76295..... 4

IV. HISTORY OF FOUR CORNERS AND IMPORTANCE OF THIS
REQUEST 5

V. REVENUE IMPACT 10

VI. CONCLUSION 12

Video Simulation of SCR Construction.....Attachment BDL-1

1 **DIRECT TESTIMONY OF BARBARA D. LOCKWOOD**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-16-0036 and E-01345A-16-0123)**

4 I. INTRODUCTION

5 **Q. PLEASE STATE YOUR NAME, ADDRESS, AND OCCUPATION.**

6 A. My name is Barbara D. Lockwood. My business address is 400 North 5th Street,
7 Phoenix, Arizona 85004. I am Vice President of Regulation for Arizona Public
8 Service Company (APS or Company). I have management responsibility for all
9 matters before the Arizona Corporation Commission (Commission), as well as
10 the Federal Energy Regulatory Commission (FERC).

11
12 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL**
13 **BACKGROUND?**

14 A. I received a Bachelor of Science degree in Chemical Engineering from Clemson
15 University and a Master of Science in Environmental Engineering from Georgia
16 Institute of Technology. I began my career at DuPont in chemical engineering
17 and management roles. I then spent a number of years in environmental
18 consulting and joined APS in 1999. I assumed my current role as Vice President
19 of Regulation in October of 2015.

20
21 Prior to my current position, I served as General Manager of Energy Innovation,
22 managing technology and renewable energy programs, including the operation
23 and maintenance of the Company’s solar generation fleet. I have served on the
24 Board of Directors for the Gridwise Alliance and currently serve on the advisory
25 board for the Critical Consumer Issues Forum. I previously served as the
26 President of the Board of Directors for Keep Phoenix Beautiful, and I currently
27 serve as the Chair of the Board of Trustees for the Arizona Science Center.

28

1 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
2 **PROCEEDING?**

3 A. The purpose of my testimony is to support the Company's request to put in rates
4 the costs associated with the installation of the selective catalytic reduction (SCR)
5 equipment at Four Corners Power Plant (Four Corners), which was mandated by
6 the federal Environmental Protection Agency (EPA). These plant improvements
7 are necessary to ensure that this valuable resource remains available as a resource
8 for Arizona and the Southwest. Specifically, I outline the Company's Request
9 and explain its relationship to the current Docket. This Request is an extension
10 of the last APS general rate proceeding and is being filed in compliance with the
11 agreed terms of the Settlement and Decision No. 76295 (August 18, 2017). My
12 testimony describes the importance of the Settlement Agreement and in
13 particular, the provision addressing the rate treatment of the costs for installing
14 the SCRs at Four Corners. In addition, I provide a brief history of Four Corners
15 and explain the reasons why APS was required to install SCR equipment at the
16 plant. Lastly, I present an update on the current status of the SCR project.

17
18 **II. SUMMARY**

19 **Q. PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.**

20 A. Installing SCRs at Four Corners was required by the federal EPA and allows this
21 important resource to continue its long history of serving Arizona customers and
22 the Southwest. In order to facilitate getting these improvements into rate base
23 between full general rate cases, the Settlement and Decision No. 76295
24 authorized a deferral order and set forth a process for including APS's
25 incremental investment in the installation of SCRs in rates prior to the next rate
26 case. These authorizations, along with other concessions, were an integral part of
27
28

1 the Settlement Agreement and permitted the Company to agree to not file another
2 general rate case for three years from the date of the last application.

3
4 My testimony describes the history of Four Corners and the Commission
5 decisions leading up to this point. This Request is the culmination of a long line
6 of decisions approved by the Commission dating back to 2012 when the
7 Commission authorized APS in Decision No. 73130 (April 24, 2012) to pursue
8 the acquisition of Southern California Edison's (SCE) share of Four Corners
9 Units 4 and 5. In the same Decision, the Commission also authorized APS to
10 defer for possible later recovery through rates all non-fuel costs of owning,
11 operating and maintaining the acquired SCE interest in Four Corners 4 and 5, all
12 unrecovered costs associated with Four Corners Units 1-3, and any additional
13 costs incurred in connection with the closure of Four Corners Units 1-3. One
14 month later, the Commission approved Decision No. 73183 (May 24, 2012)
15 adopting the Settlement in APS's 2012 rate case. The 2012 Settlement provided
16 that the rate case docket would be held open for the sole purpose of allowing APS
17 to file a request with the Commission to reflect in rates the rate base and expense
18 effects associated with the acquisition of SCE's share of Units 4 and 5. The
19 Commission subsequently approved the Four Corners Acquisition Adjustment in
20 Decision No. 74876 (December 23, 2014) and Decision No. 74948. This trilogy
21 of decisions, Decision Nos. 73130, 73183, and 74876, laid the groundwork for
22 the continuation of Four Corners for the foreseeable future.

23
24 The Settlement and Decision No. 76295 (August 18, 2017) builds on those prior
25 decisions and effectuates one of the final steps to ensuring the future of Four
26 Corners, by holding this rate case open to allow APS to include in rates the costs
27 and expenses of critical environmental equipment.

1 Finally, I address the revenue requirement requested by the Company.
2

3 **III. CONNECTION OF PRESENT REQUEST TO DECISION NO. 76295**

4 **Q. HOW DID THE SETTLEMENT AND DECISION NO. 76295 ADDRESS**
5 **THE RATE TREATMENT OF THE COMPANY'S INSTALLATION OF**
6 **SCRS AT FOUR CORNERS UNITS 4 AND 5?**

7 A. Section 9.1 of the Settlement Agreement and Decision No. 76295 stated that:

8 *The parties agree that this Docket shall remain open for the sole purpose*
9 *of allowing APS to file a request that its rates be adjusted no later than*
10 *January 1, 2019 to reflect the proposed addition of Selective Catalytic*
11 *Reduction ("SCR") equipment at Four Corners, as requested in APS's*
12 *application in this Docket.*

13 Consistent with this provision, APS is solely requesting that the rate base and
14 expense effects associated with the addition of SCR equipment at Four Corners
15 Units 4 and 5 be included in rates. APS does not present any additional issues
16 beyond what is described in Section 9 of the Agreement in compliance with
17 Section 9.4.

18
19 **Q. DID DECISION NO. 76295 INCLUDE AN ACCOUNTING DEFERRAL**
20 **ORDER FOR THE INSTALLATION OF SCRS AT FOUR CORNERS?**

21 A. Yes. Decision No. 76295 authorized APS to defer for later recovery through rates
22 all non-fuel costs (as defined to include all O&M, property taxes, depreciation,
23 and a return at APS's embedded cost of debt in this proceeding) of owning,
24 operating, and maintaining the SCR environmental controls at Four Corners.
25
26
27
28

1 **Q. WHY WAS SECTION 9 OF THE SETTLEMENT AGREEMENT**
2 **IMPORTANT TO THE COMPANY?**

3 A. Section 9 was essential for the Company's ability to accept the overall terms of
4 the Agreement and importantly, to sustain a three-year stay out also contained in
5 the Agreement. Absent this provision, the Company could not have agreed to a
6 stay out of any length. APS is required to install and begin operating the first
7 SCR by March 31, 2018 and install and begin operating the second SCR by July
8 31, 2018, but could not include the costs of doing so in the most recently
9 concluded general rate case. This deferral and step increase prevent the need for
10 APS to immediately file another general rate case. The importance of this was
11 highlighted by AIC's witness, who stated that "these mechanisms promote rate
12 gradualism and prevent the Company from filing pancaked rate
13 applications...benefit[ing] the Company, its customers, the Commission and the
14 public in general."
15

16 **IV. HISTORY OF FOUR CORNERS AND IMPORTANCE OF THIS REQUEST**

17 **Q. CAN YOU PLEASE PROVIDE A BRIEF PROCEDURAL HISTORY OF**
18 **THE FOUR CORNERS POWER PLANT?**

19 In 2010, the future of the Four Corners Power Plant stood at a crossroads. It was
20 confronted with pressures and uncertainties on several fronts, and plant
21 operations were threatened by the prospect of a forced shut down. SCE, for
22 reasons unique to California utilities, had stated that it could no longer make "life
23 extending" capital investments in the plant and needed to divest or otherwise
24 terminate its 48% ownership share of Units 4 and 5. APS wholly owned Units 1,
25 2 and 3 at Four Corners and was on notice of a Regional Haze ruling by the EPA
26 that would have required an additional investment of \$660 million of
27 environmental controls for those three units by 2016.
28

1 APS determined the best solution was for APS to retire Units 1, 2, and 3 (560
2 MW of less efficient generation) and acquire SCE's share of Units 4 and 5 (739
3 MW). The proposal allowed APS to save customers money, reduce Four Corners'
4 regional carbon dioxide and other pollutant emissions by retiring less efficient
5 coal units and installing environmental upgrades on more efficient ones. At the
6 same time APS was able to save hundreds of jobs and millions of dollars of
7 critical revenue to the Navajo Nation and the local economy, and preserve the
8 diversity of APS's generation portfolio while also tempering the Company's
9 exposure to natural gas prices, which has been of concern to this and previous
10 Commissions.

11
12 The Commission had to grant APS authority to acquire SCE's ownership interest
13 of Four Corners because APS had entered into a self-build moratorium during its
14 2003 rate case, adopted in Decision No. 67744 (April 7, 2005). This moratorium
15 extended through 2014.

16
17 In Decision No. 73130 (April 24, 2012), the Commission found that APS had
18 complied with the self-build provisions contained in Decision No. 67744, and
19 authorized APS to pursue acquisition of SCE's interest in Four Corners Units 4
20 and 5 and retire Four Corners Units 1-3. Decision No. 73130 also authorized APS
21 to defer for possible later recovery through rates all non-fuel costs of owning,
22 operating and maintain the acquired SCE interest in Four Corners Units 4 and 5,
23 all unrecovered costs associated with Four Corners Units 1-3, and any additional
24 costs incurred in connection with the closure of Four Corners Units 1-3.

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
27
28

Q. ARE THERE ANY OTHER COMMISSION DECISIONS REGARDING FOUR CORNERS?

A. Yes. The Commission approved Decision No. 73183 (May 24, 2012) adopting the Settlement in APS's 2012 rate case. That Settlement provided that the case would be held open for the sole purpose of allowing APS to file an application with the Commission to reflect in rates the rate base and expense effects associated with the acquisition of SCE's share of Units 4 and 5 and the closure of Units 1-3. APS's transaction to purchase SCE's 48% share in Units 4 and 5 closed on December 30, 2013. In compliance with Decision Nos. 73130 and 73183, APS filed an application to approve the Four Corners Acquisition Adjustment. Commission Staff found the transaction to be economically sound, and during the hearing Staff's consultant stated that there was a 99.4% chance that the transaction would have a positive net present value. Decision No. 74876 at 17. The Commission determined that the acquisition would allow APS to acquire additional generation consistent with the load growth in APS's service territory, while allowing APS to maintain a diverse resource portfolio that minimized the risk of fuel price fluctuations, protecting APS customers. *Id.* at 19. The Commission approved the acquisition of SCE's share of Units 4 and 5 and the closure of Units 1-3 of Four Corners in Decision No. 74876 (December 23, 2014) because "it will help ensure the continued provision of reliable and reasonably priced electricity for customers in APS's service territory." *Id.* At 19-20.

Q. WAS THERE ADDITIONAL LITIGATION OVER THE FOUR CORNERS ACQUISITION ADJUSTMENT, AND IS IT NOW CONCLUDED?

A. Yes. On February 23, 2015, the Arizona School Boards Association and the Association of Business Officials filed an appeal of Decision No. 74876 with the

1 Arizona Court of Appeals. The Arizona Court of Appeals heard oral argument on
2 this matter on September 14, 2017 and affirmed the ACC's decision on the Four
3 Corners Acquisition Adjustment on September 26, 2017. In its decision, the
4 Court of Appeals upheld the process used to set the Four Corners Acquisition
5 Adjustment, the same process being used here to set the interim rate to begin
6 recovering the SCR costs.

7
8 **Q. YOU MENTIONED A REGIONAL HAZE RULING EARLIER. CAN**
9 **YOU TELL US MORE ABOUT IT AND THE IMPACT TO FOUR**
10 **CORNERS?**

11 A. At a high level, Regional Haze Regulations were authorized under Section 169A
12 of the Clean Air Act that requires certain "major stationary sources" (like Four
13 Corners) to install "Best Available Retrofit Technology" (BART). Overall, these
14 requirements are part of a federal program intended to eliminate current and
15 prevent future man-made visibility impairments in geographic locations classified
16 as Class I areas, and to achieve "natural background conditions" by 2064. In
17 accordance with the EPA's Source Specific Federal Implementation Plan (FIP)
18 for implementing BART for Four Corners [77 FR 51619, August 24, 2012], Four
19 Corners must install SCR technology on Units 4 and 5 to reduce the emissions of
20 Oxides of Nitrogen (NOx), a significant contributor to visibility impairing
21 pollution or regional haze, by July 31, 2018. In addition, pursuant to a Consent
22 Decree resolving a dispute with the EPA and certain environmental groups, Four
23 Corners is subject to a stricter NOx emission limit than what was originally
24 imposed in the 2012 BART FIP (i.e., 0.08 lbs/MMBtu instead of 0.098
25 lbs/MMBtu) and with more specific due dates for SCR installation (one unit by
26 March 31, 2018, the other by July 31, 2018).

1 **Q. WHEN DID APS START THE SCR PROJECT?**

2 A. APS started the SCR project in early 2014 using a competitive-bid process to
3 evaluate qualitative and quantitative metrics before completing an Engineering,
4 Procurement and Construction (EPC) contract with a firm experienced in SCR
5 projects. The open book process was used to examine the cost estimates and the
6 cost-estimate basis before completing the contract. The Company previously
7 stated in the 2016 Rate Case Direct Testimony of APS witness Leland R. Snook
8 that APS's share of the SCR project was projected to be approximately \$400
9 million in direct construction costs. Project costs to date continue to be on track
10 with that forecast.

11
12 **Q. WHAT IS THE CURRENT STATUS OF THE SCR PROJECT?**

13 A. The Company finished installing the SCR equipment at Unit 5 and put the
14 equipment in service on December 17, 2017. APS is in the process of installing
15 SCR equipment on Unit 4 and expects the Unit 4 equipment to be completed and
16 in service by April 2018. APS is on track to meet the compliance deadlines set by
17 the federal government.

18
19 **Q. PLEASE BRIEFLY EXPLAIN THE SIZE AND SCOPE OF THIS PROJECT.**

20 This has been a large and complex project. To date, more than 2 million labor
21 hours have been spent on the SCR installation. There have been over 4,500
22 engineering drawings, 166 pier foundations drilled, 7,000 tons of steel installed,
23 6,000 cubic yards of concrete poured, and 5,400 tons of ductwork installed. Not
24 only is the project extremely complicated from an engineering perspective, but it
25 is also extremely large in terms of physical size. It is the tallest SCR installation
26 in North America. The foundations for the SCRs start 170 feet below ground.
27 There is then 255 feet of above ground equipment, for a total of 425 vertical feet.
28

1 In addition, it has the second largest air heaters in the world, each with a diameter
2 of 67 feet. Combined, the four air heaters weigh 4,200 tons.

3
4 A video simulation of the project has been included as Attachment BDL-1 and
5 can also be viewed at AZEnergyFuture.com. This simulation gives an idea of the
6 sheer magnitude and complexity of this construction project.

7
8 V. REVENUE IMPACT

9 **Q. WHAT IS THE ADDITIONAL REVENUE REQUESTED BY THE**
10 **COMPANY?**

11 A. At a high level, the SCR Adjustment that APS seeks approval of in this
12 proceeding recovers a \$67.5 million annual revenue requirement. APS witness
13 Elizabeth A. Blankenship's Direct Testimony describes the details of the revenue
14 requirement calculation.

15
16 **Q. DOES THIS ADDITIONAL REVENUE REQUIREMENT INCLUDE THE**
17 **COSTS OF THE DEFERRAL?**

18 A. Yes. Including depreciation expense, property taxes, and capital carrying charge
19 using the embedded cost of debt established in Decision No. 76295 of 5.13%,
20 APS estimates the total deferral costs for both SCRs are approximately \$23.1
21 million.

22
23 **Q. WHAT IS THE AMORTIZATION PERIOD FOR THE DEFERRAL?**

24 A. APS is proposing that the deferral be amortized over 5 years.
25
26
27
28

1 **Q. IF APPROVED, WILL THIS INCREASE CAUSE APS TO EARN MORE**
2 **THAN ITS AUTHORIZED RETURN ON FAIR VALUE RATE BASE**
3 **DECIDED IN DECISION NO. 76295?**

4 A. No. The increase will not cause APS to earn more than its authorized return on
5 fair value rate base from the Company's last general rate case. In addition,
6 Section 9.3 of the Settlement Agreement required APS to file specific schedules
7 with its Request, including an "earnings schedule that demonstrates that the
8 operating income resulting from the rate adjustment does not result in a return on
9 rate base in excess of that authorized by this Agreement in the period after the
10 rate adjustment becomes effective." This Competitively Confidential schedule is
11 attached to APS witness Blankenship's Direct Testimony as Attachment EAB-3.

12 **Q. HAS THE COMPANY INCLUDED ANY OTHER SCHEDULES WITH**
13 **ITS REQUEST?**

14 A. Yes. Per Section 9.3 of the Settlement Agreement, all required schedules have
15 been included as attachments to the Direct Testimony of APS witness
16 Blankenship with the exception of Adjustment Schedule FCA-1 (Schedule 5) and
17 the customer bill impacts (Schedule 6) which have been provided as attachments
18 to the Direct Testimony of APS witness Leland R. Snook.

19
20 **Q. WHAT EFFECTIVE DATE IS APS PROPOSING FOR THE**
21 **ADJUSTMENT TO BE IMPLEMENTED?**

22 A. APS requests that the Four Corners SCR Adjustment become effective as soon as
23 possible, but no later than January 1, 2019 as contemplated by the Settlement
24 Agreement and Decision No. 76295. The Agreement directed parties to use
25 "good faith efforts to process this rate adjustment request," and APS believes this
26 proceeding can and should be concluded as soon as possible.

27
28

1 VI. CONCLUSION

2 **Q. WOULD YOU SUMMARIZE YOUR CONCLUSIONS ABOUT THE**
3 **COMPANY'S PRESENT REQUEST?**

4 A. The Company's Request should be granted. The installation of SCRs at Four
5 Corners Units 4 and 5 is necessary to comply with federal environmental
6 requirements, and will ensure the longevity of a generation facility that is critical
7 to the Southwest and the diversity of APS's resource portfolio. APS acted
8 prudently at each stage of the construction process and every detail of this plant
9 has been scrutinized over many years and through several Commission
10 proceedings. APS has complied with all previous Commission decisions
11 concerning Four Corners and this Request fulfills the requirement in Decision
12 No. 76295. The Request should be approved without delay.

13 **Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

14 A. Yes.
15
16
17
18
19
20
21
22
23
24
25
26
27
28

**Attachment BDL-1 Can Be Found On The CD Inside Front Binder Cover Or
On www.AZEnergyFuture.com**

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
27
28

DIRECT TESTIMONY OF ELIZABETH A. BLANKENSHIP
On Behalf of Arizona Public Service Company
Docket Nos. E-01345A-16-0036 and E-01345A-16-0123

April 27, 2018

Table of Contents

1		
2		
3	I. INTRODUCTION.....	1
4	II. SUMMARY	2
5	III. FOUR CORNERS SCR ADJUSTMENT REVENUE REQUIREMENT AND SUPPORTING SCHEDULES	3
6	IV. CALCULATION OF THE FOUR CORNERS REVENUE REQUIREMENT AND ASSOCIATED PRO FORMA ADJUSTMENTS	7
7		
8	A. Rate Base Pro Forma Adjustments	7
9	1. Four Corners SCR Fair Value	8
10	2. Four Corners Deferral Balance	8
11	B. Income Statement Pro Forma Adjustments	10
12	1. Incremental Operation and Maintenance (O&M) Expenses	10
13	2. Incremental Property Tax and Other Taxes.....	10
14	3. Incremental Depreciation and Amortization Expense.....	11
15	4. Amortization of the Four Corners Deferral Balance	11
16	5. Interest / Income Tax Adjustment Related to Rate Base Pro Formas ...	12
17	V. CONCLUSION	12
18		
19	Schedule 1 – APS’s Current Balance Sheet	Attachment EAB-1
20	Schedule 2 – APS’s Current Income Statement	Attachment EAB-2
21	Schedule 3 – APS’s Forecast of Earnings Through 2020 COMPETITIVELY/HIGHLY CONFIDENTIAL	Attachment EAB-3
22		
23	Schedule 4 – Four Corners Revenue Requirement Calculation	Attachment EAB-4
24	Schedule 4(a) – APS’s Adjusted Balance Sheet.....	Attachment EAB-5
25	Schedule 4(b) – APS’s Rate Base Pro Forma Adjustments	Attachment EAB-6
26	Schedule 4(c) – APS’s Adjusted Income Statement	Attachment EAB-7
27	Schedule 4(d) – APS’s Income Statement Pro Formas	Attachment EAB-8
28		

1	Four Corners SCR Fair Value Pro Forma [Rate Base]	Attachment EAB-9
2	Four Corners Deferral Balance Pro Forma [Rate Base]	Attachment EAB-10
3	Incremental Operation and Maintenance Expenses Pro Forma	Attachment EAB-11
4	Incremental Property Tax and Other Taxes Pro Forma [Income Statement]	Attachment EAB-12
5	Incremental Depreciation and Amortization Expense Pro Forma [Income Statement]	Attachment EAB-13
6	Amortization of the Four Corners Deferral Balance Pro Forma [Income Statement]	Attachment EAB-14
7	Interest / Income Tax Adjustment Related to Rate Base Pro Forma [Income Statement]	Attachment EAB-15
8	Calculation of Deferred Costs	Attachment EAB-16
9	Four Corners Revenue Requirement Analysis	Attachment EAB-17

12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

1 **DIRECT TESTIMONY OF ELIZABETH A. BLANKENSHIP**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket No. E-01345A-16-0036 and E-01345A-0123)**

4 I. INTRODUCTION

5 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.**

6 A. My name is Elizabeth A. Blankenship. I am the Director of Accounting
7 Operations for Arizona Public Service Company (APS or Company), a subsidiary
8 of Pinnacle West Capital Corporation (Pinnacle West). I am primarily responsible
9 for overseeing the accounting functions of the generation, transmission,
10 distribution, customer service, and corporate resource areas. I also oversee the
11 accounting systems and budget governance functions at APS. My business
12 address is 400 N. 5th Street, Phoenix, Arizona 85004.

13
14
15 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?**

16 A. I received a Bachelor of Science degree in Business with a major in Accounting
17 from Arkansas State University in 1993. From 1993 to 2000, I was employed as
18 an Accountant for two companies in the long-term healthcare service industry. I
19 joined APS in October 2000 as a senior accountant and have spent the past 17
20 years working for APS in the Financial Reporting Department, Accounting
21 Operations Department, and the Revenue and Regulatory Accounting
22 Department.

23
24 Prior to my current position as the Director of Accounting Operations, I was
25 responsible for the revenue and regulatory accounting, asset accounting, accounts
26 receivable, and cash control functions at APS as the manager of the Revenue and
27 Regulatory Accounting Department. I am a Certified Public Accountant, a
28

1 member of the Arizona Society of Certified Public Accountants, and a member of
2 the Edison Electric Institute's Property Accounting Committee.
3
4

5 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
6 PROCEEDING?**

7 A. The purpose of my testimony is to support the Company's request for the
8 recovery of costs of the selective catalytic reduction (SCR) equipment at Four
9 Corners Power Plant (Four Corners), as defined in the APS Settlement
10 Agreement approved by Decision No. 76295 (August 18, 2017). Specifically, my
11 testimony describes the revenue requirement that APS is seeking to recover in the
12 Four Corners SCR Adjustment, including the calculation and amortization of the
13 deferral that was authorized in Decision No. 76295.
14

15 **II. SUMMARY**

16 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

17 A. On June 1, 2016, in Docket Nos. E-01345A-16-0036 and E-01345A-16-0123,
18 APS requested the Arizona Corporation Commission (ACC or Commission) to
19 (1) allow this docket to remain open for the sole purpose of allowing APS to file
20 a request that its rates be adjusted to reflect the proposed additions of SCR
21 equipment (2) grant an accounting deferral order and (3) authorize a step increase
22 for recovery of the SCRs. The Settlement Agreement and Decision No. 76295
23 provides the following:

24 *9.1 The parties agree that this Docket shall remain open for the sole purpose*
25 *of allowing APS to file a request that its rates be adjusted no later than*
26 *January 1, 2019 to reflect the proposed addition of Selective Catalytic*
27
28

1 *Reduction ("SCR") equipment at Four Corners, as requested in APS's*
2 *application in this Docket.*

3
4 9.2 *APS shall be authorized by the Commission to defer for possible later*
5 *recovery through rates, all non-fuel costs (as defined to include all O&M,*
6 *property taxes, depreciation, and a return at APS's embedded cost of debt*
7 *in this proceeding) of owning, operating and maintaining the Selective*
8 *Catalytic Reduction environmental controls at the Four Corners Power*
9 *Plant from the date such controls go into service until the inclusion of*
10 *such costs into rates.*

11 My testimony provides the revenue requirement needed to include the Four
12 Corners SCR Adjustment in rates as contemplated in the Settlement and Decision
13 No. 76295, including the deferral of costs until the additional equipment is
14 included in rates. Specifically, my testimony includes the calculation of the \$67.5
15 million revenue requirement, including all rate base and income statement pro
16 forma adjustments. Consistent with the Company's request, this revenue
17 requirement assumes a rate effective date no later than January 1, 2019.

18
19
20 III. FOUR CORNERS SCR ADJUSTMENT REVENUE REQUIREMENT AND
 SUPPORTING SCHEDULES

21 Q. **HOW WAS THE FOUR CORNERS SCR ADJUSTMENT COMPUTED?**

22 A. To compute the Four Corners SCR Adjustment, APS started with the approved
23 Settlement adjusted 2015 Test Year and made pro forma adjustments to that
24 starting point to reflect the installation of the SCRs on Four Corners Units 4 and
25 5. As part of rebuttal testimony, APS will update any forecast and deferral
26 information, to reflect the most current cost estimates available. To the extent that
27 these updated costs are themselves different than those actually incurred through
28

1 the rate effective date, APS proposes to record that difference as a regulatory
2 asset or liability and address that balance (plus or minus) in its next general rate
3 case. The rate impact of the SCR Adjustment is discussed in the Direct
4 Testimony of APS witness Leland Snook.
5

6
7 **Q. SECTION 9.3 OF THE SETTLEMENT AGREEMENT REQUIRED CERTAIN SCHEDULES TO BE FILED WITH THE REQUEST OF THE**
8 **ADJUSTMENT. PLEASE DESCRIBE THE SCHEDULES.**

9 A. The Settlement Agreement requires APS to file the following information with its
10 request for a rate adjustment:

11 *Any filing seeking a rate adjustment pursuant to Section 9.1 shall include*
12 *the following schedules: (1) the most current APS balance sheet at the*
13 *time of filing; (2) the most current APS income statement at the time of*
14 *filing; (3) an earnings schedule that demonstrates that the operating*
15 *income resulting from the rate adjustment does not result in a return on*
16 *rate base in excess of that authorized by this Agreement in the period after*
17 *the rate adjustment becomes effective; (4) a revenue requirement*
18 *calculation, including the amortization of any deferred costs; (5) an*
19 *adjusted rate base schedule; and (6) a typical bill analysis under present*
20 *and filed rates.*
21

22 My testimony addresses each of the required schedules, except Schedules 5 and
23 6, which are attached to the Direct Testimony of Leland R. Snook.

- 24
- 25 • *Schedule 1: the most current APS balance sheet at the time of filing.*
26 Attachment EAB-1 is the balance sheet as of December 31, 2017, the most
27 recently available financial filing for the Company. The balance sheet
28

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
27
28

reflects all additional plant placed in-service by December 31, 2017, including the Four Corners Unit 5 SCR.

- *Schedule 2: the most current APS income statement at the time of filing.* Attachment EAB-2 is the income statement for the year ended December 31, 2017, the most recently available financial filing for the Company.
- *Schedule 3: an earnings schedule that demonstrates that the operating income resulting from the rate adjustment does not result in a return on rate base in excess of that authorized by this Agreement in the period after the rate adjustment becomes effective.* Attachment EAB-3 is a forecast of APS's earnings through 2020. APS's anticipated earnings do not exceed the 10% ROE authorized in Decision No. 76295. Schedule 3 is Competitively Confidential and has been filed under seal.
- *Schedule 4: a revenue requirement calculation, including the amortization of any deferred costs.* Attachment EAB-4 is the requested rate base increase for the Four Corners SCRs. The schedule shows the adjusted 2015 Test Year rate of return under ACC Jurisdiction. This reflects no changes to the approved Settlement adjusted Test Year except for the SCRs and associated impacts, including a lower federal lower tax rate as a result of tax reform. Schedule 4 also shows the increase to ACC Jurisdictional Original Cost Rate Base (OCRB) from the 2015 Test Year attributable to the Four Corners SCRs. The OCRB increases from \$6.8 billion to \$7.2 billion post-adjustment. This schedule is similar to an "A-1" Standard Filing Requirement (SFR). In addition, attached are support Schedules 4(a) through 4(d), which provide additional information. Each

1 of the supplemental schedules are discussed below and its rate case SFR
2 equivalent is identified for ease of reference.

- 3
- 4 • *Schedule 4(a): APS's adjusted balance sheet.* Attachment EAB-5 is
5 similar to SFR schedule B-1. It shows the change in APS's rate base from
6 the 2015 Test Year adjusted OCRB to an adjusted OCRB that includes the
7 Four Corners SCR Adjustment, in the total amount of \$7.2 billion ACC
8 jurisdiction, using the same jurisdictional allocation factors accepted in
9 Decision No. 76295.
 - 10 • *Schedule 4(b): APS's rate base pro forma adjustments.* Attachment EAB-6
11 is equivalent to SFR schedule B-2. This attachment shows each rate base
12 pro forma adjustment, including a description of the adjustment and its
13 impact on rate base.
 - 14 • *Schedule 4(c): APS's adjusted income statement.* Attachment EAB-7 is
15 equivalent to SFR schedule C-1. It reflects the Company's adjusted
16 operating income. Specifically, this schedule shows the operating income
17 authorized in the Settlement Agreement and the effects on that operating
18 income as a result of the Four Corners SCRs. The adjustment produces a
19 \$474.3 million adjusted net income for Total Company and \$538.0 million
20 for ACC Jurisdiction.
 - 21 • *Schedule 4(d): APS's income statement pro forma adjustments.*
22 Attachment EAB-8 is similar to SFR schedule C-2. This attachment shows
23 each income statement pro forma adjustment including a description of the
24 adjustment and its impact on the operating income.
25
26
27
28

- 1 • *Schedule 5: an adjustment that recovers the rate base and non-PSA*
2 *related expenses associated with the Four Corners SCR additions, which*
3 *shall become effective no later than January 1, 2019. Please see the*
4 *Direct Testimony of Leland R. Snook, Attachment LRS-1.*
- 5
- 6 • *Schedule 6: a typical bill analysis under present and filed rates. Please see*
7 *the Direct Testimony of APS witness Leland R. Snook, Attachment LRS-*
8 *2.*
- 9

10 **IV. CALCULATION OF THE FOUR CORNERS REVENUE REQUIREMENT**
11 **AND ASSOCIATED PRO FORMA ADJUSTMENTS**

12 **Q. PLEASE DESCRIBE HOW APS CALCULATED THE FOUR CORNERS**
13 **SCR REVENUE REQUIREMENT.**

14 A. In order to determine the annual revenue requirement, two major types of
15 adjustments were made to the Settlement adjusted Test Year of the Company: (1)
16 rate base pro forma adjustments, and (2) income statement pro forma
17 adjustments. My testimony is separated into two subsections to describe the
18 individual pro forma adjustments in each category. The starting point for all
19 adjustments was the adjusted 2015 Test Year, as approved by the Commission in
20 the Settlement Agreement. See Attachment EAB-4 and EAB-17 for revenue
21 requirement calculations.

22 A. *Rate Base Pro Forma Adjustments*

23

24 **Q. PLEASE SUMMARIZE THE RATE BASE PRO FORMA ADJUSTMENTS**
25 **ASSOCIATED WITH THE ADJUSTMENT.**

26 A. The collective purpose of the adjustments is to accurately reflect the Company's
27 adjusted rate base resulting from the installation of the SCR equipment, and also
28

1 adjusting for the deferral of the costs from when the SCRs are in service through
2 the anticipated rate effective date of January 1, 2019. No other adjustments to the
3 Adjusted 2015 Test Year rate base are being proposed by the Company.
4

5 1. Four Corners SCR Fair Value
6

7 **Q. PLEASE DESCRIBE THE PRO FORMA ADJUSTMENT FOR THE FAIR
8 VALUE OF THE SCR ADDITIONS.**

9 A. The adjustment reflects the investment of the SCRs. The total adjustment results
10 in an increase to rate base of \$369.9 million. See Attachment EAB-6 (page 1
11 column C) and attachment EAB-9. Because the reconstruction cost of the SCRs is
12 identical to its original cost, there is no difference between the original cost and
13 the fair value of the SCRs. For additional information on the fair value rate of
14 return, please see the Direct Testimony of Leland R. Snook.
15

16 2. Four Corners Deferral Balance

17 **Q. PLEASE EXPLAIN THE NON-FUEL COSTS OF OWNING, OPERATING
18 AND MAINTAINING THE SCRS.**

19 A. There are four basic categories of non-fuel costs explained below:
20

21 *1) Operations and Maintenance (O&M)*

22 APS used its forecast information to estimate additional O&M costs associated
23 with the SCR additions. APS will continue to incur additional costs which will be
24 deferred from the in-service date of the SCRs until the date in which the
25 investment is included in customer rates. This deferral amortization period was
26 estimated to last for 5 years for the purpose of this adjustment. The deferral
27 amount associated with operating and maintaining the SCRs is \$0.5 million.
28

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
27
28

2) Book Depreciation and Amortization

Depreciation – Depreciation expense will be incurred on the net book value of APS’s share of the SCR additions beginning on the in-service dates (Unit 5 in-service date of December 19, 2017 and Unit 4 in-service date in April 2018). The depreciation rate used in this pro forma is based on the straight-line method using an end-of life assumption of 2038, consistent with the end-of-life assumption used in the depreciation study and approved in Decision No. 76295. It results in an increase to the deferral amount of \$4.7 million.

Amortization – APS proposes that the deferral occur from when the SCRs are in-service through December 2018, and that the step increase occur no later than January 1, 2019. APS proposes amortizing the deferral over 5 years. Including depreciation expense, property taxes, and a capital carrying charge (APS calculated this charge using the embedded cost of debt established earlier in this proceeding), APS estimates the total deferral costs for both SCRs are approximately \$23.1 million. After the step increase occurs, the annual revenue requirement associated with projects is \$67.5 million. This includes the depreciation expense, property taxes, debt and equity return, and the taxes associated with the equity return.

3) Property and Other Taxes

The deferral calculation also includes the increased New Mexico property taxes for the SCR additions. The total property and other taxes included in the deferral are \$1.7 million.

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
27
28

4) *Deferred Debt Return*

The increase in the rate base investment is \$369.9 million. To calculate the Commission-approved debt return, APS applied the embedded cost of debt of 5.13% (as approved in Decision No. 76295) to the increase in rate base to determine the deferred debt return of \$16.1 million. *See* Attachment EAB-16 at line 6 and line 7.

Collectively, the sum of these four cost categories results in a deferral balance of \$23.1 million Total Company; ACC Jurisdiction is \$23.0 million. APS will amortize the balance over 5 years, as discussed later in my testimony. *See* Attachment EAB-6 (page 1 column E) and Attachment EAB-10.

B. *Income Statement Pro Forma Adjustments*

1. Incremental Operation and Maintenance (O&M) Expenses

Q. **PLEASE DESCRIBE THE PRO FORMA ADJUSTMENT FOR INCREMENTAL O&M EXPENSE RELATED TO THE SCR ADDITIONS.**

A. This adjustment used the Settlement adjusted 2015 Test Year income statement as a starting point and then reduced the pre-tax operating income by \$0.7 million to reflect the increase in O&M related to the SCR additions. *See* Attachment EAB-8 (page 1 column A) and Attachment EAB-11.

2. Incremental Property Tax and Other Taxes

Q. **PLEASE DESCRIBE THE PRO FORMA ADJUSTMENT FOR INCREMENTAL PROPERTY TAX EXPENSE RELATED TO THE SCR ADDITIONS.**

A. Similar to the O&M expense adjustment, this pro forma seeks to include the additional property tax expense that results from the addition of the SCRs. The

1 adjustment reduces pre-tax operating income by \$3.4 million on a Total Company
2 basis. See Attachment EAB-8 (page 1 column C) and Attachment EAB-12.
3

4 **Q. IN SECTION 11 OF THE SETTLEMENT AGREEMENT, APS IS**
5 **AUTHORIZED TO DEFER PROPERTY TAXES WHEN THE RATE**
6 **RISES. DOES SUCH DEFERRAL HAVE AN EFFECT ON THIS PRO**
7 **FORMA ADJUSTMENT?**

8 A. No. The Settlement Agreement authorized APS to defer property tax expenses
9 resulting from a change in Arizona composite property tax rates. Four Corners is
10 located in New Mexico and is additional property specifically contemplated to be
11 recovered on an incremental basis by Section 9 of the Settlement Agreement.

12 3. Incremental Depreciation and Amortization Expense
13

14 **Q. PLEASE DESCRIBE THE PRO FORMA ADJUSTMENT FOR**
15 **INCREMENTAL DEPRECIATION AND AMORTIZATION EXPENSE**
16 **RELATED TO THE SCR ADDITIONS.**

17 A. There will be additional depreciation and amortization expense associated with
18 the additional plant book value resulting from the installation of the SCR
19 equipment. Depreciation and amortization is calculated over the remaining life of
20 the SCR assets. The depreciation and amortization results in a pre-tax reduction
21 to operating income of \$21.5 million. See Attachment EAB-8 (page 1 column E)
22 and Attachment EAB-13.

23 4. Amortization of the Four Corners Deferral Balance
24

25 **Q. PLEASE DESCRIBE THE PRO FORMA ADJUSTMENT TO AMORTIZE**
26 **THE FOUR CORNERS DEFERRAL.**

27 A. The amortization of the deferral is the income statement side of the rate base pro
28 forma adjustment of the same title. This adjustment takes the ACC jurisdiction

1 rate base adjustment of \$17.3 million and amortizes it over a 5-year period. The
2 adjustment reduces the pre-tax operating income by \$4.6 million per year for five
3 years. The deferred balance included in the revenue requirement is premised on a
4 5-year deferral. See Attachment EAB-8 (page 2 column G) and Attachment EAB-
5 14.

6
7 5. Interest / Income Tax Adjustment Related to Rate Base Pro Formas

8 **Q. PLEASE DESCRIBE THE PRO FORMA ADJUSTMENT PERTAINING**
9 **TO INTEREST AND INCOME TAXES.**

10 A. This pro forma identifies the additional interest expense associated with the
11 additional rate base related to the installation of the SCRs. This additional interest
12 expense reduces income taxes and results in an increase of after-tax operating
13 income of \$2.2 million. See Attachment EAB-8 (page 2 column I) and
14 Attachment EAB-15.

15
16 **Q. DOES THAT CONCLUDE THE ADJUSTMENTS USED TO DERIVE**
17 **THE FOUR CORNERS SCR ADJUSTMENT?**

18 A. Yes.

19 V. CONCLUSION

20 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

21 A. Yes. The calculation of the Four Corners SCR Adjustment and the deferral are
22 consistent with Commission's Decision No. 76295.

23
24 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

25 A. Yes.
26
27
28

Attachment EAB -1

**ARIZONA PUBLIC SERVICE COMPANY
CONSOLIDATED BALANCE SHEETS
(dollars in thousands)**

	December 31,	
	2017	2016
ASSETS		
PROPERTY, PLANT AND EQUIPMENT (Notes 1, 6 and 9)		
Plant in service and held for future use	\$ 17,654,078	\$ 17,228,787
Accumulated depreciation and amortization	(6,041,965)	(5,881,941)
Net	11,612,113	11,346,846
Construction work in progress	1,266,636	989,497
Palo Verde sale leaseback, net of accumulated depreciation of \$241,405 and \$237,535 (Note 18)	109,645	113,515
Intangible assets, net of accumulated amortization of \$581,135 and \$603,637	257,028	89,868
Nuclear fuel, net of accumulated amortization of \$144,070 and \$147,202	117,408	119,004
Total property, plant and equipment	13,362,830	12,658,730
INVESTMENTS AND OTHER ASSETS		
Nuclear decommissioning trust (Notes 13 and 19)	871,000	779,586
Assets from risk management activities (Note 16)	51	1
Other assets	67,103	48,320
Total investments and other assets	938,154	827,907
CURRENT ASSETS		
Cash and cash equivalents	13,851	8,840
Customer and other receivables	292,791	262,611
Accrued unbilled revenues	112,434	107,949
Allowance for doubtful accounts	(2,513)	(3,037)
Materials and supplies (at average cost)	262,630	252,777
Fossil fuel (at average cost)	25,258	28,608
Income tax receivable	—	11,174
Assets from risk management activities (Note 16)	1,931	19,694
Deferred fuel and purchased power regulatory asset (Note 3)	75,637	12,465
Other regulatory assets (Note 3)	172,451	94,410
Other current assets	41,055	41,849
Total current assets	995,525	837,340
DEFERRED DEBITS		
Regulatory assets (Notes 1, 3, and 4)	1,202,302	1,313,428
Assets for other postretirement benefits (Note 7)	265,139	162,911
Other	129,801	130,859
Total deferred debits	1,597,242	1,607,198
TOTAL ASSETS	\$ 16,893,751	\$ 15,931,175

ARIZONA PUBLIC SERVICE COMPANY
CONSOLIDATED BALANCE SHEETS
(dollars in thousands)

	December 31,	
	2017	2016
LIABILITIES AND EQUITY		
CAPITALIZATION		
Common stock	\$ 178,162	\$ 178,162
Additional paid-in capital	2,571,696	2,421,696
Retained earnings	2,533,954	2,331,245
Accumulated other comprehensive loss (Note 20)	(26,983)	(25,423)
Total shareholder equity	5,256,829	4,905,680
Noncontrolling interests (Note 18)	129,040	132,290
Total equity	5,385,869	5,037,970
Long-term debt less current maturities (Note 6)	4,491,292	4,021,785
Total capitalization	9,877,161	9,059,755
CURRENT LIABILITIES		
Short-term borrowings (Note 5)	—	135,500
Current maturities of long-term debt (Note 6)	82,000	—
Accounts payable	247,852	259,161
Accrued taxes (Note 4)	157,349	130,576
Accrued interest	55,533	52,525
Common dividends payable	77,700	72,900
Customer deposits	70,388	82,520
Liabilities from risk management activities (Note 16)	59,252	25,836
Liabilities for asset retirements (Note 11)	4,192	8,703
Regulatory liabilities (Note 3)	100,086	99,899
Other current liabilities	243,922	226,417
Total current liabilities	1,098,274	1,094,037
DEFERRED CREDITS AND OTHER		
Deferred income taxes (Note 4)	1,742,485	2,999,295
Regulatory liabilities (Notes 1, 3, and 4)	2,452,536	948,916
Liabilities for asset retirements (Note 11)	666,527	607,234
Liabilities for pension benefits (Note 7)	306,542	488,253
Liabilities from risk management activities (Note 16)	37,170	47,238
Customer advances	113,996	88,672
Coal mine reclamation	215,830	206,645
Deferred investment tax credit	205,575	210,162
Unrecognized tax benefits (Note 4)	43,876	37,408
Other	133,779	143,560
Total deferred credits and other	5,918,316	5,777,383
COMMITMENTS AND CONTINGENCIES (SEE NOTES)		
TOTAL LIABILITIES AND EQUITY	\$ 16,893,751	\$ 15,931,175

Attachment EAB -2

ARIZONA PUBLIC SERVICE COMPANY
CONSOLIDATED STATEMENTS OF INCOME
(dollars in thousands)

	Year Ended December 31,		
	2017	2016	2015
ELECTRIC OPERATING REVENUES	\$ 3,554,139	\$ 3,489,754	\$ 3,492,357
OPERATING EXPENSES			
Fuel and purchased power	992,744	1,082,625	1,101,298
Operations and maintenance	891,129	879,108	853,135
Depreciation and amortization	532,423	484,909	494,298
Income taxes (Note 4)	275,295	259,353	260,143
Taxes other than income taxes	182,979	165,779	171,499
Total	2,874,570	2,871,774	2,880,373
OPERATING INCOME	679,569	617,980	611,984
OTHER INCOME (DEDUCTIONS)			
Income taxes (Note 4)	6,127	13,511	14,302
Allowance for equity funds used during construction (Note 1)	47,011	42,140	35,215
Other income (Note 17)	6,526	8,607	2,834
Other expense (Note 17)	(23,380)	(17,514)	(19,019)
Total	36,284	46,744	33,332
INTEREST EXPENSE			
Interest on long-term debt	200,211	189,828	180,123
Interest on short-term borrowings	9,119	7,983	7,376
Debt discount, premium and expense	4,833	4,760	4,793
Allowance for borrowed funds used during construction (Note 1)	(22,112)	(19,481)	(16,183)
Total	192,051	183,090	176,109
NET INCOME	523,802	481,634	469,207
Less: Net income attributable to noncontrolling interests (Note 18)	19,493	19,493	18,933
NET INCOME ATTRIBUTABLE TO COMMON SHAREHOLDER	<u>\$ 504,309</u>	<u>\$ 462,141</u>	<u>\$ 450,274</u>

ARIZONA PUBLIC SERVICE COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(dollars in thousands)

	Year Ended December 31,		
	2017	2016	2015
NET INCOME	\$ 523,802	\$ 481,634	\$ 469,207
OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX			
Derivative instruments:			
Net unrealized loss, net of tax benefit (expense) of \$24, \$(585), and \$(342) (Note 16)	(35)	(538)	(957)
Reclassification of net realized loss, net of tax benefit of \$1,294, \$985, and \$1,801 (Note 16)	2,225	2,941	4,187
Pension and other postretirement benefits activity, net of tax benefit (expense) of \$977, \$293, and \$(11,776) (Note 7)	(3,750)	(729)	18,006
Total other comprehensive income (loss)	(1,560)	1,674	21,236
COMPREHENSIVE INCOME	522,242	483,308	490,443
Less: Comprehensive income attributable to noncontrolling interests	19,493	19,493	18,933
COMPREHENSIVE INCOME ATTRIBUTABLE TO COMMON SHAREHOLDER	<u>\$ 502,749</u>	<u>\$ 463,815</u>	<u>\$ 471,510</u>

EAB -3

Attachment(s) Intentionally Omitted – Contains Competitively/Highly Confidential Information

Attachment EAB -4

ARIZONA PUBLIC SERVICE COMPANY
Schedule 4 - FOUR CORNERS SCR ADJUSTMENT
COMPUTATION OF INCREASE IN GROSS REVENUE REQUIREMENTS
ACC JURISDICTION
ADJUSTED TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

Line No.	Description	Settlement		Four Corners Pro Forma Adjustments		Settlement (with Four Corners SCR Adjustment)		Line No.
		Original Cost	RCND	Fair Value	Adjustments	Original Cost	RCND	
1.	Adjusted Rate Base	\$ 6,785,689	\$ 13,195,433	\$ 9,990,561	(a) \$ 385,212	(b) \$ 7,170,901	\$ 13,580,645	1.
2.	Adjusted Operating Income	558,472	558,472	558,472	(20,481) (c)	537,991	537,991	2.
3.	Fair Value Adjustment Embedded in Operating Income	25,796	25,796	25,796		25,796	25,796	3.
4.	Adjusted Operating Income without Fair Value Adjustment (Line 2 - Line 3)	532,677	532,677	532,677		512,196	512,196	4.
5.	Current Rate of Return (Line 4 / Line 1)	7.85%	4.04%	5.33% (d)		7.14%	3.77%	5.
6.	Required Operating Income (Line 7 * Line 1)	532,677	532,677	532,677		562,916	562,916	6.
7.	Required Rate of Return	7.85% (e)	4.04% (e)	5.33% (e)		7.85% (e)	4.14% (e)	7.
8.	Adjusted Operating Income Deficiency (Line 4 - Line 6)	-	-	-		50,720	50,720	8.
9.	Gross Revenue Conversion Factor (f)	1.6178	1.6178	1.6178		1.3317	1.3317	9.
10.	Requested Increase in Base Revenue Requirements (Line 8 * Line 9)	-	-	-		67,544	67,544	10.
11.	2015 Adjusted Base Revenues					3,226,932	3,226,932	11.
12.	Percentage Base Rate Increase (Line 10 / Line 11)					2.09%	2.09%	12.

Notes:

- (a) See Decision No. 76295 Page 21
- (b) See Schedule 4.a, Column E, Line 21
- (c) See Schedule 4.c, Page 2, Column B, Line 23
- (d) Current rate of return for adjusted test year 2015 is calculated by dividing the adjusted rate base by the after tax adjusted operating income.
- (e) The required rate of return for OCRB, RCND and fair value does not reflect any return on the difference between fair value rate base and original cost rate base, but is simply a mathematical derivation based upon the original cost rate of return.
- (f) See Settlement Schedule C-3 and TEAM Adjustor Filing Schedule C-3

ARIZONA PUBLIC SERVICE COMPANY
 COMPUTATION OF GROSS REVENUE CONVERSION FACTOR
 ADJUSTED TEST YEAR ENDED 12/31/2015

Line No.	Description	Settlement Percentage of Incremental Gross Revenues	Settlement (with Four Corners SCR Adjustment) Percentage of Incremental Gross Revenues	Line No.
1	Gross Revenue	100%	100%	1
2	Less uncollectible revenue	0.14%	0.14%	2
3	Taxable revenue as a percent	99.86%	99.86%	3
4	Federal Income Taxes	34.95%	21.00%	4
5	State Income Taxes Net of Federal Tax Benefit	3.10%	3.77%	5
6	Total Tax Percentage	38.05%	24.77%	6
7	Operating Income = Taxable Revenue - Tax Percentage	61.81%	75.09%	7
8	1/Operating Income % = Gross Revenue Conversion Factor	1.6178	1.3317 (a)	8

Notes:
 (a) Revenue Conversion Factor incorporates a lower federal tax rate as a result of tax reform which was reflected in the TEAM adjutor.

Attachment EAB -5

ARIZONA PUBLIC SERVICE COMPANY
Schedule 4.a FOUR CORNERS SCR ADJUSTMENTS
SUMMARY OF ORIGINAL COST RATE BASE ELEMENTS
TOTAL COMPANY AND ACC JURISDICTION
TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

Line No.	Description	Original Cost				Line No.	
		Settlement (a) (A)	Total Company Four Corners Pro Forma (b) (B)	Adjusted Settlement (c) (C)	Settlement (d) (D)		ACC Four Corners Pro Forma (e) (E)
1.	Gross utility plant in service	\$ 17,578,662	\$ 452,709	\$ 18,031,371	\$ 15,092,975	\$ 15,543,239	1.
2.	Less: Accumulated depreciation & amortization	6,872,597	4,994	6,877,591	6,092,871	6,097,838	2.
3.	Net utility plant in service	10,706,065	447,715	11,153,780	9,000,104	9,445,401	3.
Deductions:							
4.	Deferred income taxes	2,846,063	60,411	2,906,474	2,334,319	2,394,404	4.
5.	Investment tax credits	187,080		187,080	186,047	186,047	5.
6.	Customer advances for construction	115,609		115,609	94,903	94,903	6.
7.	Customer deposits	72,622		72,622	72,622	72,622	7.
8.	Pension and other postretirement liabilities	426,442		426,442	394,050	394,050	8.
9.	Liability for asset retirements	443,576		443,576	441,181	441,181	9.
10.	Other deferred credits	42,847		42,847	41,426	41,426	10.
11.	Coal mine reclamation	201,984		201,984	200,611	200,611	11.
12.	Unrecognized tax benefits	35,251		35,251	29,523	29,523	12.
13.	Regulatory liabilities	787,438		787,438	756,476	756,476	13.
14.	Total deductions	5,158,912	60,411	5,219,323	4,551,158	4,611,243	14.
Additions:							
15.	Regulatory assets	1,117,614		1,117,614	1,025,911	1,025,911	15.
16.	Deferred debit income tax receivable	121,338		121,338	113,265	113,265	16.
17.	Other deferred debits	735,196		735,196	731,226	731,226	17.
18.	Decommissioning trust accounts	182,625		182,625	168,753	168,753	18.
19.	Allowance for working capital	316,554		316,554	297,588	297,588	19.
20.	Total additions	2,473,327	-	2,473,327	2,336,743	2,336,743	20.
21.	Total rate base	\$ 8,020,480	\$ 387,304	\$ 8,407,784	\$ 6,785,689	\$ 7,170,901	21.

Notes:

- (a) See Schedule 4.b, Page 1, Column A
- (b) See Schedule 4.b, Page 1, Column G
- (c) See Schedule 4.b, Page 1, Column I
- (d) See Schedule 4.b, Page 1, Column B
- (e) See Schedule 4.b, Page 1, Column H
- (f) See Schedule 4.b, Page 1, Column J

Attachment EAB -6

ARIZONA PUBLIC SERVICE COMPANY
Schedule 4.b - FOUR CORNERS SCR ADJUSTMENT
ORIGINAL COST RATE BASE PRO FORMA ADJUSTMENTS
TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

Line No.	Description	(1)		(2)		(3)		(4)		(5)	
		Total Co. (A)	ACC (B)	Total Co. (C)	ACC (D)	Total Co. (E)	ACC (F)	Total Co. (G)	ACC (H)	Total Co. (I)	ACC (J)
1.	Gross Utility Plant in Service	\$ 17,578,662	\$ 15,092,975	\$ 429,621	\$ 427,302	\$ 23,087	\$ 22,962	\$ 452,709	\$ 450,264	\$ 18,031,371	\$ 15,543,239
2.	Less: Accumulated Depreciation & Amort.	6,872,587	6,092,871	4,994	4,967	-	-	4,994	4,967	6,877,591	6,097,838
3.	Net Utility Plant in Service	10,706,065	9,000,104	424,627	422,335	23,087	22,962	447,715	445,297	11,153,780	9,445,401
4.	Less: Total Deductions	5,156,912	4,551,158	54,692	54,397	5,719	5,688	60,411	60,085	5,219,323	4,611,243
5.	Total Additions	2,473,327	2,336,743	-	-	-	-	-	-	2,473,327	2,336,743
6.	Total Rate Base	\$ 8,020,460	\$ 6,765,669	\$ 369,935	\$ 367,938	\$ 17,368	\$ 17,274	\$ 367,304	\$ 365,212	\$ 8,407,764	\$ 7,170,901

WITNESS:

BLANKENSHIP

(1) Original Cost Rate base per Settlement Decision No. 76295. Refer to Schedule 4.

(2) Adjustment to rate base to reflect the increase in the accounting fair value associated with the SCR additions.

(3) Deferred balance of unrecovered costs for the addition of SCRs on Four Corners Units 4 and 5. Deferral balance covers amounts deferred from December 17, 2017 through December 31, 2018.

Attachment EAB -7

ARIZONA PUBLIC SERVICE COMPANY
Schedule 4.c - FOUR CORNERS SCR ADJUSTMENT
TOTAL COMPANY
ADJUSTED TEST YEAR INCOME STATEMENT
TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

Line No.	Description	Total Company			Line No.
		Settlement (A)	Pro Forma Adjustments (a) (B)	Settlement Results After Pro Forma Adjustments (C)	
Electric Operating Revenues					
1.	Revenues from Base Rates	\$ 3,295,565	\$ -	\$ 3,295,565	1.
2.	Revenues from Surcharges	-	-	-	2.
3.	Other Electric Revenues	170,101	-	170,101	3.
4.	Total	<u>3,465,666</u>	<u>-</u>	<u>3,465,666</u>	4.
Operating expenses:					
5.	Electric fuel and purchased power	1,007,037	-	1,007,037	5.
6.	Operations and maintenance excluding fuel expenses	772,982	730	773,712	6.
7.	Depreciation and amortization	555,716	26,098	581,814	7.
8.	Income taxes	281,027	(9,672)	271,355	8.
9.	Other taxes	211,792	3,437	215,229	9.
10.	Total	<u>2,828,554</u>	<u>20,593</u>	<u>2,849,147</u>	10.
11.	Operating income	<u>637,112</u>	<u>(20,593)</u>	<u>616,519</u>	11.
Other income (deductions):					
12.	Income taxes	14,302	-	14,302	12.
13.	Allowance for equity funds used during construction	35,215	-	35,215	13.
14.	Other income	2,834	-	2,834	14.
15.	Other expense	(19,019)	-	(19,019)	15.
16.	Total	<u>33,332</u>	<u>-</u>	<u>33,332</u>	16.
17.	Income before interest deductions	<u>670,444</u>	<u>(20,593)</u>	<u>649,851</u>	17.
Interest deductions:					
18.	Interest on long-term debt	179,563	-	179,563	18.
19.	Interest on short-term borrowings	7,376	-	7,376	19.
20.	Debt discount, premium and expense	4,793	-	4,793	20.
21.	Allowance for borrowed funds used during construction	(16,183)	-	(16,183)	21.
22.	Total	<u>175,549</u>	<u>-</u>	<u>175,549</u>	22.
23.	Net income	<u>\$ 494,895</u>	<u>\$ (20,593)</u>	<u>\$ 474,302</u>	23.

Notes:

(a) See Schedule 4.d, Page 2, Column K

ARIZONA PUBLIC SERVICE COMPANY
Schedule 4.c - FOUR CORNERS SCR ADJUSTMENT
ACC JURISDICTION
ADJUSTED TEST YEAR INCOME STATEMENT
TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

Line No.	Description	ACC Jurisdiction			Line No.
		Settlement (A)	Pro Forma Adjustments (a) (B)	Settlement Results After Pro Forma Adjustments (C)	
	Electric Operating Revenues				
1.	Revenues from Base Rates	\$ 3,251,480	\$ -	\$ 3,251,480	1.
2.	Revenues from Surcharges	-	-	-	2.
3.	Other Electric Revenues	158,549	-	158,549	3.
4.	Total	<u>3,410,029</u>	<u>-</u>	<u>3,410,029</u>	4.
	Operating expenses:				
5.	Electric fuel and purchased power	1,000,176	-	1,000,176	5.
6.	Operations and maintenance excluding fuel expenses	927,665	726	928,391	6.
7.	Depreciation and amortization	498,258	25,957	524,215	7.
8.	Income taxes	249,866	(9,620)	240,246	8.
9.	Other taxes	175,592	3,418	179,010	9.
10.	Total	<u>2,851,557</u>	<u>20,481</u>	<u>2,872,038</u>	10.
11.	Operating income	<u>558,472</u>	<u>(20,481)</u>	<u>537,991</u>	11.
	Other income (deductions):				
12.	Income taxes	-	-	-	12.
13.	Allowance for equity funds used during construction	-	-	-	13.
14.	Other income	-	-	-	14.
15.	Other expense	-	-	-	15.
16.	Total	<u>-</u>	<u>-</u>	<u>-</u>	16.
17.	Income before interest deductions	<u>558,472</u>	<u>(20,481)</u>	<u>537,991</u>	17.
	Interest deductions:				
18.	Interest on long-term debt	-	-	-	18.
19.	Interest on short-term borrowings	-	-	-	19.
20.	Debt discount, premium and expense	-	-	-	20.
21.	Allowance for borrowed funds used during construction	-	-	-	21.
22.	Total	<u>-</u>	<u>-</u>	<u>-</u>	22.
23.	Net income	<u>\$ 558,472</u>	<u>\$ (20,481)</u>	<u>\$ 537,991</u>	23.

Notes:

(a) See Schedule 4.d, Page 2, Column L

Attachment EAB -8

ARIZONA PUBLIC SERVICE COMPANY
Schedule 4.d - FOUR CORNERS SCR ADJUSTMENT
INCOME STATEMENT PRO FORMA ADJUSTMENTS
TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

(1) (2) (3)

Line No.	Description	Total Co. (A)	ACC (B)	Total Co. (C)	ACC (D)	Total Co. (E)	ACC (F)
			Incremental Operation and Maintenance Expenses Related to the SCR Additions	Incremental Property Tax & Other Taxes Related to the SCR Additions		Incremental Depreciation and Amortization Expense Related to the SCR Additions	
1.	Electric Operating Revenues						
2.	Revenues from Base Rates	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.	Revenues from Surcharges	-	-	-	-	-	-
4.	Other Electric Revenues	-	-	-	-	-	-
	Total Electric Operating Revenues	-	-	-	-	-	-
5.	Electric Fuel and Purchased Power Costs	-	-	-	-	-	-
6.	Oper Rev Less Fuel & Purch Pwr Costs	-	-	-	-	-	-
7.	Other Operating Expenses:	730	726	-	-	-	-
8.	Operations Excluding Fuel Expense	-	-	-	-	-	-
9.	Maintenance	730	726	-	-	-	-
	Subtotal	-	-	-	-	-	-
10.	Depreciation and Amortization	-	-	-	-	21,481	21,365
11.	Amortization of Gain	-	-	-	-	-	-
12.	Administrative and General	-	-	-	-	-	-
13.	Other Taxes	-	-	3,437	3,418	-	-
14.	Total	730	726	3,437	3,418	21,481	21,365
	Operating Income Before Income Tax	(730)	(726)	(3,437)	(3,418)	(21,481)	(21,365)
16.	Interest Expense	-	-	-	-	-	-
17.	Taxable Income	(730)	(726)	(3,437)	(3,418)	(21,481)	(21,365)
18.	Composite Income Tax Rate - 24.77%	(181)	(180)	(851)	(847)	(5,321)	(5,292)
19.	Operating Income (line 15 minus line 18)	(549)	(546)	(2,586)	(2,571)	(16,160)	(16,073)

WITNESS:

BLANKENSHIP BLANKENSHIP BLANKENSHIP

- (1) Adjustment to Test Year operation and maintenance expense to reflect the increased cost associated with the SCR additions.
- (2) Adjustment to Test Year property tax values to reflect the increase in tax owed to the Navajo Nation and New Mexico due to the SCR additions.
- (3) Adjustment to Test Year depreciation and amortization expense to reflect additional expenses associated with the SCR additions.

ARIZONA PUBLIC SERVICE COMPANY
Schedule 4.d - FOUR CORNERS SCR ADJUSTMENT
INCOME STATEMENT PRO FORMA ADJUSTMENTS
TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

(6)

(5)

(4)

Line No.	Description	Amortization of Four Corners Deferral Balance		Interest/Income Tax Adjustment Related to Rate Base Pro Formas		Total Income Statement Adjustments	
		Total Co. (G)	ACC (H)	Total Co. (I)	ACC (J)	Total Co. (K)	ACC (L)
1.	Electric Operating Revenues						
2.	Revenues from Base Rates		\$ -	\$ -		\$ -	\$ -
3.	Revenues from Surcharges		-	-		-	-
4.	Other Electric Revenues		-	-		-	-
	Total Electric Operating Revenues						
5.	Electric Fuel and Purchased Power Costs		-	-		-	-
6.	Oper Rev Less Fuel & Purch Pwr Costs		-	-		-	-
7.	Other Operating Expenses:						
8.	Operations Excluding Fuel Expense		-	-		-	-
9.	Maintenance		-	-		-	-
	Subtotal					730	726
10.	Depreciation and Amortization	4,617	4,592			26,098	25,957
11.	Amortization of Gain		-			-	-
12.	Administrative and General		-			-	-
13.	Other Taxes		-			3,437	3,418
14.	Total	4,617	4,592			30,265	30,101
15.	Operating Income Before Income Tax	(4,617)	(4,592)			(30,265)	(30,101)
16.	Interest Expense			8,782	8,735	8,782	8,735
17.	Taxable Income	(4,617)	(4,592)	(8,782)	(8,735)	(39,047)	(38,836)
18.	Composite Income Tax Rate - 24.77%	(1,144)	(1,137)	(2,175)	(2,164)	(9,672)	(9,620)
19.	Operating Income (line 15 minus line 18)	(3,473)	(3,455)	2,175	2,164	(20,593)	(20,481)

WITNESS:

BLANKENSHIP

BLANKENSHIP

(4) Deferred balance of operating costs associated with the SCR additions. Deferral balance covers amounts deferred from December 17, 2017 through December 31, 2018, amortized over 5 years.

(5) Adjustment to interest expense and income taxes to reflect the increase in rate base associated with the SCR additions.

Attachment EAB -9

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Original Cost Rate Base as Shown on Schedule 4.b, page 1, column C
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: Four Corners Fair Value of SCR Additions
Adjustment to rate base to reflect the increase in the accounting fair value associated with the SCR additions to Units 4 & 5.

Line No.	Description	Total Company Amount
1.	Gross Utility Plant in Service	\$ 429,621
2.	Less: Accumulated Depreciation and Amortization	4,994
3.	Net Utility Plant in Service	424,627
4.	Less: Total Deductions	54,692
5.	Total Additions	-
6.	Total Rate Base	\$ 369,935

Attachment EAB -10

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Original Cost Rate Base as Shown on Schedule 4.b, page 1, column E
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: Four Corners SCR Deferral Balance
 Deferred balance of unrecovered costs for the addition of SCRs on Four Corners Units 4 & 5.
 Deferral balance covers amounts deferred from December 17, 2017 through December 31, 2018.

Line No.	Description	Total Company Amount
1.	Gross Utility Plant in Service	\$ 23,087
2.	Less: Accumulated Depreciation and Amortization	-
3.	Net Utility Plant in Service	23,087
4.	Less: Total Deductions	5,719
5.	Total Additions	-
6.	Total Rate Base	\$ 17,368

Attachment EAB -11

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule 4.d, page 1, column A
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: Incremental Operation and Maintenance Expenses Related to the SCR additions
Adjustment to Test Year operation and maintenance expense to reflect the increased cost
associated with the SCR additions

Line No.	Description	Total Company Amount
Electric Operating Revenues		
1.	Revenues in base rates	\$ -
2.	Surcharge revenue	-
3.	Other electric revenue	-
4.	Total electric operating revenues	-
Operating Expenses		
5.	Electric fuel and purchased power	-
6.	Operations and maintenance excluding fuel expenses	730
7.	Depreciation and amortization	-
8.	Other taxes	-
9.	Total Operating Expenses	730
10.	Operating Income (before income tax)	(730)
11.	Current Income Tax Rate - 24.77%	(181)
12.	Operating Income After Tax	\$ (549)

Attachment EAB -12

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule 4.d, page 1, column C
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: Incremental Property Tax and Other Taxes Related to the SCR Additions
Adjustment to Test Year property tax values to reflect the increase in tax owed to the Navajo Nation and New Mexico due to the SCR additions

Line No.	Description	Total Company Amount
Electric Operating Revenues		
1.	Revenues in base rates	\$ -
2.	Surcharge revenue	-
3.	Other electric revenue	-
4.	Total electric operating revenues	-
Operating Expenses		
5.	Electric fuel and purchased power	-
6.	Operations and maintenance excluding fuel expenses	-
7.	Depreciation and amortization	-
8.	Other taxes	3,437
9.	Total Operating Expenses	3,437
10.	Operating Income (before income tax)	(3,437)
11.	Current Income Tax Rate - 24.77%	(851)
12.	Operating Income After Tax	\$ (2,586)

Attachment EAB -13

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule 4.d, page 1, column E
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: Incremental Depreciation and Amortization Expense Related to the SCR Additions
Adjustment to Test Year depreciation and amortization expense to reflect additional expenses
associated with the SCR additions

Line No.	Description	Total Company Amount
Electric Operating Revenues		
1.	Revenues in base rates	\$ -
2.	Surcharge revenue	-
3.	Other electric revenue	-
4.	Total electric operating revenues	-
Operating Expenses		
5.	Electric fuel and purchased power	-
6.	Operations and maintenance excluding fuel expenses	-
7.	Depreciation and amortization	21,481
8.	Other taxes	-
9.	Total Operating Expenses	<u>21,481</u>
10.	Operating Income (before income tax)	<u>(21,481)</u>
11.	Current Income Tax Rate - 24.77%	(5,321)
12.	Operating Income After Tax	<u>\$ (16,160)</u>

Attachment EAB -14

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule 4.d, page 2, column G
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: Amortization of Four Corners Deferral Balance
 Deferred balance of operating costs associated with the SCR additions. Deferral balance covers amounts deferred from December 17, 2017 through December 31, 2018, amortized over 5 years.

Line No.	Description	Total Company Amount
Electric Operating Revenues		
1.	Revenues in base rates	\$ -
2.	Surcharge revenue	-
3.	Other electric revenue	-
4.	Total electric operating revenues	-
Operating Expenses		
5.	Electric fuel and purchased power	-
6.	Operations and maintenance excluding fuel expenses	-
7.	Depreciation and amortization	4,617
8.	Other taxes	-
9.	Total Operating Expenses	4,617
10.	Operating income (before income tax)	(4,617)
11.	Current Income Tax Rate - 24.77%	(1,144)
12.	Operating Income After Tax	\$ (3,473)

Attachment EAB -15

ARIZONA PUBLIC SERVICE COMPANY
Detail of Pro Forma Adjustments to Operating Income as Shown on Schedule 4.d, page 2, column I
Total Company
(Thousands of Dollars)

Pro Forma Adjustment: Interest / Income Tax Adjustment Related to Rate Base Pro Formas
 Adjustment to interest expense and income taxes related to the increase in rate base associated
 with the SCR additions

Line No.	Description	Total Company Amount
Electric Operating Revenues		
1.	Revenues in base rates	\$ -
2.	Surcharge revenue	-
3.	Other electric revenue	-
4.	Total electric operating revenues	-
Operating Expenses		
5.	Electric fuel and purchased power	-
6.	Operations and maintenance excluding fuel expenses	-
7.	Depreciation and amortization	-
8.	Other taxes	-
9.	Total Operating Expenses	-
10.	Operating Income (before income tax)	-
11.	Interest Expense	8,782
12.	Taxable Income	(8,782)
13.	Current Income Tax Rate - 24.77%	(2,175)
14.	Operating Income After Tax	\$ 2,175

Attachment EAB -16

ARIZONA PUBLIC SERVICE COMPANY
FOUR CORNERS SCR ADJUSTMENT

COST DEFERRAL WITH FINANCING DEFERRALS @ 100% x 5.13% EMBEDDED LTD RATE, NO COMPOUNDING
UNIT 5 IN SERVICE DECEMBER 2017, UNIT 4 IN SERVICE APRIL 2018
TOTAL COMPANY AND ACC JURISDICTION
ADJUSTED TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

	Unit 5		Unit 5		Unit 5		Unit 4		Total
	Dec 2017	Jan Dec 2018'	Dec 2017 - Dec 2018	Jan Dec 2018'	Dec 2017 - Dec 2018	Apr 2018 - Dec 2018	Apr 2018 - Dec 2018		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
A. 1 Operation & Maintenance	\$ -	\$ 304	\$ 304	\$ 243	\$ 547				
B. 2 Book Depreciation and Amortization	\$ -	\$ 2,792	\$ 2,792	\$ 1,930	\$ 4,722				
C. 3 Property and Other Taxes	\$ -	\$ 1,683	\$ 1,683	\$ -	\$ 1,683			\$ 1,683	
D. 4 Deferred Debt Return	\$ 166,767	\$ 172,021	\$ 172,021	\$ 197,914	\$ 369,935				
5 Increase in Rate Base for SCR Investment	5.130%	5.130%	5.130%	5.130%	5.130%				
6 Embedded Cost of Debt	\$ 328	\$ 8,825	\$ 9,153	\$ 6,982	\$ 16,135				
7 Deferred Debt Return (Line 5 * Line 6)									
E. 8 Cost Deferral	\$ 328	\$ 13,604	\$ 13,932	\$ 9,155	\$ 23,087				
9 Pre-Tax Cost Deferral Total Company (Line 1 + Line 2 + Line 3 + Line 7)	99.46%	99.46%	99.46%	99.46%	99.46%				
10 ACC Share	\$ 326	\$ 13,530	\$ 13,857	\$ 9,105	\$ 22,962				
11 Pre-Tax Cost Deferral ACC Share									
12 Deferred Taxes	\$ 81	\$ 3,351	\$ 3,432	\$ 2,255	\$ 5,688				
13 After-Tax Cost Deferral ACC Share (Line 11 - Line 12)	\$ 246	\$ 10,179	\$ 10,424	\$ 6,850	\$ 17,274				
14 Cumulative Pre-Tax ACC Cost Deferrals at End of Period (Line 11)			\$ 13,857	\$ 9,105	\$ 22,962				
15 Cumulative After-Tax ACC Cost Deferrals at End of Period (Line 13)			\$ 10,424	\$ 6,850	\$ 17,274				
16 Annual ACC Jurisdiction Deferral Amortization Starting 1/1/2019 (Line 26 amortized over 5 years)			\$ 2,771	\$ 1,821	\$ 4,592				
17 Total Company Deferral Amortization (Line 16/ 9946)			\$ 2,786	\$ 1,831	\$ 4,617				

Attachment EAB -17

ARIZONA PUBLIC SERVICE COMPANY
FOUR CORNERS SCR ADJUSTMENT
REVENUE REQUIREMENT ANALYSIS
TOTAL COMPANY AND ACC JURISDICTION
ADJUSTED TEST YEAR ENDED 12/31/2015
(Thousands of Dollars)

Line No.	A. RATE BASE ¹	TOTAL COMPANY	ACC JURISDICTION
1)	Four Corners Unit 4 SCR	\$197,914	\$196,846
2)	Four Corners Unit 5 SCR	\$172,021	\$171,092
3)	Four Corners Deferral Balance	\$17,368	\$17,274
4)	Total Rate Base	\$387,304	\$385,212
5)	Settlement Allowed Rate of Return @ 7.85%		
6)	Return on Rate Base (Line 4 * Line 5)	\$30,403	\$30,239
	<u>B. COMPUTATION OF INCOME TAXES</u>		
7)	Weighted Cost of Long Term Debt @ 2.27%		
8)	Tax Rate @ 24.77%		
9)	Income Taxes ((Line 5 - Line 7)(Line 4)(Line 8))/(1 - Line 8)	\$7,116	\$7,077
10)	Settlement Revenue Conversion Factor Adjustment	\$127	\$126
	<u>C. EXPENSES²</u>		
11)	Electric Fuel and Purchased Power	\$0	\$0
12)	Operations and Maintenance	\$730	\$726
13)	Depreciation and Amortization	\$26,098	\$25,957
14)	Other Taxes	\$3,437	\$3,418
15)	Total Expenses	\$30,265	\$30,101
	<u>D. REVENUE REQUIREMENT @7.85%</u>		
16)	RETURN, INCOME TAXES, and EXPENSES (Line 6 + Line 9 + Line 10 + Line 15)	\$67,911	\$67,544

Notes:

¹Attachment EAB-6, Schedule 4.b

²Attachment EAB-7, Schedule 4.c

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
27
28

DIRECT TESTIMONY OF LELAND R. SNOOK
On Behalf of Arizona Public Service Company
Docket Nos. E-01345A-16-0036 and E-01345A-16-0123

April 27, 2018

Table of Contents

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
27
28

I. INTRODUCTION..... 1

II. SUMMARY 2

III. WACC IS THE ONLY APPROPRIATE RATE OF RETURN FOR THE
RATE BASE ADDITION OF THE SCR EQUIPMENT 3

IV. BILL IMPACT 10

V. CONCLUSION 11

Schedule 5 – Adjustment Schedule FCA-1 (Tariff).....Attachment LRS-1

Schedule 6 – Sample Bill Impact Analysis.....Attachment LRS-2

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
27
28

**DIRECT TESTIMONY OF LELAND R. SNOOK
ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY
(Docket Nos. E-01345A-16-0036 and E-01345A-16-0123)**

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Leland R. Snook. My business address is 400 North 5th Street, Phoenix, Arizona, 85004. I am Director of Rates and Rate Strategy for Arizona Public Service Company. I have management responsibility for all aspects relating to rates and pricing.

Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. I have held my current position as Director of Rates and Rate Strategy at APS for approximately nine years. Prior to assuming my current position, I served as the Director of Federal Regulation at APS. I have a Bachelor of Science Degree in Electrical Engineering from Texas Tech University, and I am a registered professional electrical engineer in Arizona. My areas of expertise include development and analysis of electric utility revenue requirements, modeling of cost of service, rate schedule design, embedded and marginal cost analysis and formulation of utility service policies. I have previously testified before the Arizona Corporation Commission (ACC or Commission) on cost of service, customer contracts, cost recovery mechanisms, fair value of utility property, rate schedules and pricing.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. The purpose of my Direct Testimony is to illustrate why the Weighted Average Cost of Capital (WACC) that resulted from the initial phase of the APS rate case

1 that authorized this proceeding (Decision No. 76295) is the appropriate rate of
2 return to use for the incremental rate base addition of the Four Corners Selective
3 Catalytic Reduction (SCR) equipment. Additionally, I sponsor Adjustment
4 Schedule FCA-1 and the bill impact analysis resulting from APS's updated
5 revenue requirement calculation.
6

7 **II. SUMMARY**

8 **Q. PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.**

9 **A.** Fair Value Rate of Return (FVROR) in this proceeding is the output of a static
10 formula. It is designed to demonstrate that a utility's rates accounted for the fair
11 value of the utility's property in a material way. Because it is an output, it cannot
12 be used in isolation to determine the amount of the return on rate base. Instead, a
13 utility's WACC is the cornerstone of that return. WACC is the key input into the
14 static formula from which the FVROR is ultimately derived. Thus, APS's WACC
15 of 7.85% is the only figure that can be used to determine the proper amount of
16 return on APS's investment in the Four Corners SCR project.
17

18 The exact formula for determining FVROR is as follows:
19

20 **FVROR = [(WACC x Original Cost Rate Base) + (% Return on Fair Value**
21 **Increment x Fair Value Increment)] ÷ Fair Value Rate Base**

22
23 Per the Settlement and Decision No. 76295, the WACC is 7.85%, and the return
24 on the Fair Value Increment (FVI) is 0.8%. However, each of the other three
25 numbers, Original Cost Rate Base (OCRB), Fair Value Rate Base (FVRB) and
26 FVI change with the incremental addition of the Four Corners SCRs. With this
27 incremental addition, the resulting overall FVROR becomes 5.68%.
28

1 To apply the FVROR established in Decision No. 76295 to the incremental SCR
2 investment, rather than the WACC, would be inconsistent with Decision No.
3 76295. It would also fail to properly recognize the fair value of APS's
4 investment, constitute confiscatory ratemaking in violation of Arizona law, and
5 not be in the public interest.
6

7 APS is proposing an equal percentage increase of slightly over 2% on all base
8 rates with some exceptions discussed later in my Direct Testimony and as shown
9 on Attachment LRS-1. The percent impact on total customer bills will be slightly
10 lower due to the impact of revenue-related taxes and assessments as well as
11 adjustments to base rates such as the Power Supply Adjuster.
12

13 **III. WACC IS THE ONLY APPROPRIATE RATE OF RETURN FOR THE RATE**
14 **BASE ADDITION OF THE SCR EQUIPMENT**

15 **Q. WHAT IS THE PURPOSE OF THE WACC?**

16 A. The WACC is the number used to determine the return on a utility's rate base for
17 purposes of calculating a revenue requirement. It is the cost of a utility's capital
18 after accounting for (or being weighted by) a utility's capital structure. In other
19 words, it is the actual cost to incur the debt and equity necessary to make
20 incremental investments like the SCRs. And like any other legitimate cost of
21 providing service, this cost must be recovered in rates.
22

23 **Q. HOW WAS APS'S WACC OF 7.85% CALCULATED?**

24 A. As a result of Decision No. 76295, APS's return on equity was 10% and its
25 embedded cost of debt was set as 5.13%. In addition, its capital structure was
26 recognized as 44.2% debt and 55.8% equity. To arrive at the WACC of 7.85%,
27 one would weight 44.2% of APS's capital structure at the 5.13% embedded cost
28

1 of debt and weight the remaining 55.8% at the 10% cost of equity. The resulting
2 sum would be the 7.85% WACC.
3

4 **Q. HOW SHOULD THE WACC BE USED IN THIS PROCEEDING?**

5 A. The amount of investment needed to install the SCRs (the rate base addition
6 caused by the SCRs) should be multiplied by the WACC to determine the return
7 component of the incremental revenue requirement that will result from this
8 proceeding.

9 **Q. BY CONTRAST, WHAT IS THE PURPOSE OF THE FVROR?**

10 A. The FVROR is an output of the ratemaking equation that demonstrates that the
11 rates established by the Commission for a particular utility materially recognized
12 the fair value of that utility's rate base and satisfy the Arizona Constitution.
13

14 **Q. DOES THE FVROR REFLECT WHAT IT COSTS A UTILITY TO ACQUIRE CAPITAL OR FUND AN INVESTMENT?**

15 A. No. Utilities acquire capital through either debt or equity. They use a combination
16 of both sources to fund investments. It is a utility's WACC, which is a weighted
17 average of the utility's debt and equity costs, that is the only appropriate way to
18 establish the utility's cost to fund an investment. By contrast, an unadjusted
19 FVROR has only an indirect relationship to a utility's cost of debt or equity.
20

21 **Q. WHY IS IT INCORRECT TO APPLY THE FVROR CALCULATED IN THE SETTLEMENT TO THE INCREMENT OF RATE BASE REPRESENTED BY THE FOUR CORNERS SCR EQUIPMENT?**

22 A. Because doing so would not properly reflect the full "rate base and expense
23 effects" of the Four Corners SCR equipment, and in doing so, would fail to
24 properly recognize the fair value of APS's property devoted to public use. It
25 results in a FVROR on the new Four Corners asset that is incorrect as a matter of
26 mathematics and will result in an undercollection of costs.
27
28

1 In Section 9 of the Settlement, the parties agreed to hold open the underlying rate
 2 case to allow APS to seek to add the Four Corners SCR equipment to rate base as
 3 if the new asset had been a part of the Company's original rate case filing. To
 4 recognize the rate base and expense effects of the SCRs as the Settlement
 5 requires, one cannot simply cut and paste the 5.59% FVROR calculated using the
 6 Company's Settlement-authorized rate base and apply it to the new acquisition as
 7 a stand-alone asset.
 8

9 **Q. WHY CAN YOU NOT APPLY THE 5.59% FVROR TO THE SCR**
 10 **INVESTMENT AS A STAND-ALONE ASSET?**

11 A. Before answering that question, it is important to first understand what FVROR
 12 is. FVROR is the output of a formula whose components will change as items are
 13 added to or subtracted from rate base. Here is the formula used in the Settlement
 14 per my filed Direct Settlement Testimony:

15 *Capital Structure with 0.8% FV Increment*

	Amount	%	Cost Rate	Weighted Avg
16 Long-Term Debt	\$ 2,999,275	30.02%	5.13%	1.54%
17 Preferred Stock	-	0.00%	0.00%	0.00%
18 Common Equity	3,786,414	37.90%	10.00%	3.79%
19 Short-Term Debt	-	0.00%	0.00%	0.00%
FVRB Increment	3,204,872	32.08%	0.80%	0.26%
Total	<u>\$ 9,990,561</u>	<u>100.00%</u>		<u>5.5900%</u>

20
 21 The inputs to this formula will change as rate base changes. Specifically, FVRB
 22 is calculated by adding the OCRB to the "reconstruction cost new less
 23 depreciation" (RCND) of that original cost number and dividing that sum by 2.
 24 FVRB will thus necessarily change with a change in the value to either the OCRB
 25 or the RCND rate base.
 26
 27
 28

1 **Q. WHY IS THE CHANGE IN FVRB FROM ADDING A NEW ASSET**
 2 **IMPORTANT?**

3 A. The FVI is calculated by subtracting the OCRB from the FVRB. As shown above
 4 and without the Four Corners SCR equipment, the OCRB and FVRB authorized
 5 in the Settlement resulted in a FVROR that equaled 5.59% given the WACC and
 6 return on FVI also authorized by the Settlement. But both of those rate base
 7 numbers change when the new Four Corners SCR equipment is added to rate
 8 base, as contemplated by the Settlement.

9
 10 The following table walks through multiple calculations of the FVROR formula:
 11 one with the Original Settlement calculation, a stand-alone Four Corners SCR
 12 calculation and the combination of the Settlement and the Four Corners SCR
 13 addition.

14 **Figure A: Settlement and Four Corners SCR Revenue Requirement to**
 15 **Calculate the FVROR¹**

		<u>Settlement</u>	<u>Four Corners</u> <u>SCRs</u>	<u>Settlement +</u> <u>Four Corners</u>
		(dollars in thousands)		
18	1. OCRB	\$ 6,785,689	\$ 385,212	\$ 7,170,901
19	2. WACC	7.85%	7.85%	7.85%
20	3. Resulting Operating Income (line 1 * line 2)	\$ 532,677	\$ 30,239	\$ 562,916
21	4. FVRB	\$ 9,990,561	\$ 385,212	\$ 10,375,773
22	5. Fair Value Increment, i.e., Incremental FVRB Over OCRB (line 4 - line 1)	\$ 3,204,872	\$ 0	\$ 3,204,872
23	6. Return on Fair Value Increment	0.80%	0.80%	0.80%
24	7. Return on Fair Value Increment * Fair Value Increment (line 6 * line 5)	\$ 25,796	\$ 0	\$ 25,796
25	8. OCRB + FVRB Required Operating Income (line 3 + line 7)	\$ 558,472	\$ 30,239	\$ 588,712
26	9. FVROR (line 8 / line 4)	5.59%	7.85%	5.68%

27
 28 ¹ As illustrated in this table, there are small numerical differences due to rounding.

1 Each of these calculations effectively recognize the 7.85% WACC and 0.8%
2 return on the Fair Value Increment used in the Settlement. The slight increase to
3 the FVROR percentage in the Four Corners plus Settlement scenario is not
4 caused by any enhanced return on that asset, but simply reflects how the math
5 changed when the rate base changed. APS still recovers only a 7.85% WACC
6 and earns only a 0.8% return on the Fair Value increment, the numbers already
7 used in the Settlement. Notably, the Fair Value increment for the SCRs is zero.
8 This is because they are new assets and the original cost to build the SCRs (i.e.,
9 OCRB) and the cost to reconstruct them, less depreciation (i.e., RCND), are
10 assumed to be the same. This makes FVRB the same as OCRB or RCND,
11 because FVRB is $(OCRB + RCND)/2$ and the resulting FVI for these particular
12 assets is zero.

13
14 **Q. HOW WOULD THE PREVIOUS TABLE CHANGE IF YOU SIMPLY**
15 **APPLY THE 5.59% FVROR INSTEAD OF THE WACC TO THE FOUR**
16 **CORNERS SCR ADDITION?**

17 A. As you will see, if the FVROR is substituted in place of the WACC for the Four
18 Corners SCRs, the resulting allowance for the WACC of the combined
19 Settlement plus Four Corners SCRs column is actually only 7.73% rather than
20 7.85% due to the approximately \$8.7 million reduction in operating income.
21
22
23
24
25
26
27
28

1 **Figure B: Settlement and Four Corners SCR Revenue Requirement using FVROR**
 2 **of 5.59% rather than WACC²**

		<u>Settlement</u>	<u>Four Corners</u> <u>SCRs</u>	<u>Settlement +</u> <u>Four Corners</u>
		(dollars in thousands)		
1.	OCRB	\$ 6,785,689	\$ 385,212	\$ 7,170,901
2.	WACC	7.85%	5.59%	7.73%
3.	Resulting Operating Income (line 1 * line 2)	\$ 532,677	\$ 21,533	\$ 554,210
4.	FVRB	\$ 9,990,561	\$ 385,212	\$ 10,375,773
5.	Fair Value Increment, i.e., Incremental FVRB Over OCRB (line 4 - line 1)	\$ 3,204,872	\$ 0	\$ 3,204,872
6.	Return on Fair Value Increment	0.80%	0.80%	0.80%
7.	Return on Fair Value Increment * Fair Value Increment (line 6 * line 5)	\$ 25,796	\$ 0	\$ 25,796
8.	OCRB + FVRB Required Operating Income (line 3 + line 7)	\$ 558,472	\$ 21,533	\$ 580,005
9.	FVROR (line 8 / line 4)	5.59%	5.59%	5.59%

13
 14 This \$8.7 million is the undercollection that results from applying the FVROR,
 15 rather than the WACC, to the SCR investment to determine the revenue
 16 requirement in this proceeding.

17
 18 **Q. IS APS'S DERIVATION OF THE REVENUE REQUIREMENT FOR THE**
 19 **FOUR CORNERS SCRS USING THE WACC CONSISTENT WITH**
 20 **PRIOR ACC PRECEDENT?**

21 **A.** Yes. The formula used to calculate FVROR in Decision No. 76295 was far from
 22 unique. To APS's knowledge, that formula has been used in almost every case
 23 since the Commission began to value a FVRB Increment. It can be found at pages
 24 49 and 50 of Staff witness David Parcell's Direct Testimony in this docket. And
 25 even before that time, the Commission acknowledged that the FVROR must be
 26 sufficient to allow the utility to recover its WACC. In particular, the Commission
 27 recognized that:

28 ² As illustrated in this table, there are small numerical differences due to rounding.

1 *The beginning point of our inquiry [concerning Fair Value Rate of*
2 *Return] must be the cost of capital. It is difficult to imagine a*
3 *situation in which a reasonable return on FVRB would yield less*
4 *than the cost of capital which comprises that rate base.*

5 *In re Arizona Water Company, Decision No. 53537 (April 27, 1983) at 15*
6 *(emphasis in original).*

7
8 Performing the calculation using the FVROR from Decision No. 76295 of 5.59%
9 would cause the WACC to be lower than APS's actual WACC of 7.85% for the
10 Four Corners SCR equipment. This would inappropriately reduce the return on
11 that equipment by approximately \$8.7 million per year, denying APS the ability
12 to earn a reasonable return on FVRB and failing to recognize the full fair value of
13 APS's investment called for by Decision No. 76295.

14 **Q. WHY WOULD RECOGNIZING THE FULL FAIR VALUE OF APS'S**
15 **INVESTMENT BE IN THE PUBLIC INTEREST?**

16 A. As discussed in the rate case testimony of APS's return on equity expert, Dr.
17 Bente Villadsen, the amount of return that APS received for its investment is an
18 important signal to the investment community. The amount of capital that
19 investors will invest with utilities is finite, and utilities like APS must compete
20 for that capital. The amount of return that utilities can demonstrate is often the
21 deciding factor for where investors will deploy their capital. If APS's authorized
22 fair value is not fully recognized, Dr. Villadsen's testimony suggests that
23 investors may be less inclined to invest as much in Arizona. Conversely, if APS
24 is provided the opportunity to earn its full return on its fair value rate base, it may
25 result in a stronger signal to investors that they should consider investing more in
26 Arizona.

1 **Q. DIDN'T THE COMMISSION REJECT THE COMPANY'S ARGUMENT**
2 **ON THIS ISSUE IN DECISION NO. 74876 (DECEMBER 23, 2014)?**

3 A. The Commission did not adopt the Company's position. However, the issue came
4 up somewhat late in the proceeding, and APS was frankly surprised that there was
5 any controversy over its position. The Company therefore believes the record was
6 not fully developed and that a more fulsome evidentiary record will warrant a
7 different result.

8 **IV. BILL IMPACT**

9 **Q. WHAT IS THE UPDATED REVENUE REQUIREMENT REQUESTED**
10 **BY THE COMPANY AND WHAT WILL BE THE IMPACT ON**
11 **CUSTOMERS?**

12 A. APS witness Elizabeth A. Blankenship's Direct Testimony describes the details
13 of the updated revenue requirement calculation, but APS is seeking recovery of
14 \$67.5 million. The Four Corners SCR Adjustment will be applied to all
15 customers' bills on an equal percentage basis to the base rate portion of the bill.
16 The percentage applied to recover this amount is 2.09%, which will result in an
17 approximate overall bill impact of 1.93% (for a typical residential customer). See
18 Attachment LRS-2.

19 **Q. WHAT IS THE PERCENTAGE INCREASE TO BE APPLIED TO**
20 **CUSTOMERS' BASE BILLS AND WHAT IS THE OVERALL IMPACT**
21 **TO CUSTOMERS?**

22 A. While the overall bill impact for a typical residential customer is 1.93%, the
23 adjustment will only be applied to the base portion of customer bills.³ The
24 percentage that will be applied to customer base bills to recover the necessary
25 revenue requirement is 2.09%, as shown on Ms. Blankenship's Attachment EAB-
26 4 and in Adjustment Schedule FCA-1, which is attached to my Testimony as

27 ³ The base portion of customer bills excludes taxes, assessments and the following adjustors: DSMAC,
28 REAC, LFCR, EIS, TCA, PSA and TEAM.

1 Attachment LRS-1. The difference in bill impact and the base bill percentage is
2 because the 2.09% is only applied to the base portion of their bill and not
3 adjustors.⁴ A sample bill impact analysis is attached to my Testimony as
4 Attachment LRS-2. This Attachment also satisfies Section 9.3 of the Settlement
5 Agreement's requirement to file a typical bill analysis under present and filed
6 rates. In addition, APS requests that this percentage increase be applied to the
7 "APS" portion of an AG-X customer's bill, but not to the portion representing a
8 pass through of charges from such customer's Alternative Generation Provider.
9

10 **Q. WHAT IS APS PROPOSING AS THE EFFECTIVE DATE FOR THE SCR**
11 **ADJUSTMENT TO BE IMPLEMENTED?**

12 A. APS has assumed that the SCR Adjustment will become effective as of January 1,
13 2019 for purposes of calculating the deferral. As noted in APS witness
14 Blankenship's testimony, if the SCR Adjustment is implemented after that date,
15 there will be additional cost deferrals to recover, although it is the Company's
16 recommendation that any deferrals not captured in the Commission's final order
17 in this matter be carried over until the Company's next general rate proceeding.

18 V. CONCLUSION

19 **Q. DO YOU HAVE ANY FINAL COMMENTS?**

20 A. Yes. The appropriate method to calculate the return for the Four Corners SCR
21 equipment addition is to apply the WACC from the Settlement to the OCRB or
22 FVRB, which are the same value. Using the FVROR form the Settlement directly
23 is mathematically incorrect and will result in a return on rate base that is \$8.7
24 million less than required and will deny APS the ability to recover a reasonable
25 return on its FVRB.
26

27 ⁴ If adjustors increase subsequent to this Application, the 1.93% will go down, and if the converse is
28 true, the 1.93% will go up. But in either case the dollar impact on customer bills will not change.

1 Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

2 A. Yes.

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

Attachment LRS -1



APPLICATION

The Four Corners SCR Adjustment Schedule ("FCA") shall apply to all retail Standard Offer service except as noted below.

Schedule FCA-1 recovers costs associated with investment and expenses for APS's purchase and installation of selective catalytic reduction technology for Four Corners Generating Station Units 4 and 5 as approved in Decision No. 76295.

All provisions of the customer's current applicable rate schedule shall apply in addition to charges under this adjustment schedule. Schedule FCA-1 shall be effective with the first billing cycle in January 2019 without proration and remain in effect until the conclusion of APS's next rate case.

RATE

The FCA will be applicable to the customer's monthly billed amount, excluding all other adjustments, sales tax, regulatory assessment and franchise fees. The resulting charged amount shall not be less than zero. In addition, the charge shall not apply to:

- The generation service and imbalance service charges in Rate Rider Schedule AG-X
- Customers served under rate schedules HLF-1, HLF-2, and HLF-3
- The energy and ancillary service charge in Rate Schedule E-36 XL
- Credits for the purchase of excess generation under rate rider schedules EPR-2, EPR-6, EPR-6 Legacy, RCP, and E-56R
- Voluntary charges under rate rider schedules GPS-1, GPS-2, and GPS-3

FCA 2.09%

Attachment LRS -2

ARIZONA PUBLIC SERVICE COMPANY
SCHEDULE 6 - FOUR CORNERS SCR ADJUSTMENT
Estimated Monthly Bill Impacts of Four Corners Adjustment

	AVERAGE MONTHLY BILL IMPACTS		SEASONAL BILL IMPACTS			
	Current	Proposed	Current	Proposed	Current	Proposed
	Average Monthly Bill ¹	Average Monthly Bill ¹	Summer Monthly Bill	Summer Monthly Bill	Winter Monthly Bill	Winter Monthly Bill
Commercial S (E-32)						
Average kWh per Month	7,182		7,752	7,752	6,612	6,612
Average kW per Month	23.7		26.8	26.8	20.6	20.6
Base Rates	\$ 920.64	\$ 920.64	\$ 1,075.95	\$ 1,075.95	\$ 765.32	\$ 765.32
PSA	\$ 32.71	\$ 32.71	\$ 35.31	\$ 35.31	\$ 30.11	\$ 30.11
TCA	\$ 5.31	\$ 5.31	\$ 6.00	\$ 6.00	\$ 4.61	\$ 4.61
RES	\$ 76.81	\$ 76.81	\$ 82.90	\$ 82.90	\$ 70.71	\$ 70.71
DSMAC	\$ 8.37	\$ 8.37	\$ 9.46	\$ 9.46	\$ 7.27	\$ 7.27
EIS	\$ 0.79	\$ 0.79	\$ 0.85	\$ 0.85	\$ 0.73	\$ 0.73
Four Corners	\$ -	\$ 19.27	\$ -	\$ 22.52	\$ -	\$ 16.02
LFGR	\$ 18.30	\$ 18.30	\$ 20.69	\$ 20.69	\$ 15.90	\$ 15.90
TEAM	\$ (35.28)	\$ (35.28)	\$ (38.08)	\$ (38.08)	\$ (32.48)	\$ (32.48)
Total	\$ 1,027.65	\$ 1,046.92	\$ 1,193.08	\$ 1,215.60	\$ 862.17	\$ 878.19

	AVERAGE MONTHLY BILL IMPACTS		SEASONAL BILL IMPACTS			
	Current	Proposed	Current	Proposed	Current	Proposed
	Average Monthly Bill ¹	Average Monthly Bill ¹	Summer Monthly Bill	Summer Monthly Bill	Winter Monthly Bill	Winter Monthly Bill
Commercial - M (E-32)						
Average kWh per Month	62,238	62,238	68,381	68,381	56,094	56,094
Average kW per Month	195.7	195.7	209.5	209.5	181.8	181.8
Base Rates	\$ 7,101.78	\$ 7,101.78	\$ 8,159.93	\$ 8,159.93	\$ 6,043.62	\$ 6,043.62
PSA	\$ 283.50	\$ 283.50	\$ 311.48	\$ 311.48	\$ 255.51	\$ 255.51
TCA	\$ 43.83	\$ 43.83	\$ 46.93	\$ 46.93	\$ 40.72	\$ 40.72
RES	\$ 267.35	\$ 267.35	\$ 267.35	\$ 267.35	\$ 267.35	\$ 267.35
DSMAC	\$ 69.07	\$ 69.07	\$ 73.95	\$ 73.95	\$ 64.18	\$ 64.18
EIS	\$ 6.85	\$ 6.85	\$ 7.52	\$ 7.52	\$ 6.17	\$ 6.17
Four Corners	\$ -	\$ 148.65	\$ -	\$ 170.80	\$ -	\$ 126.50
LFGR	\$ 151.04	\$ 151.04	\$ 161.73	\$ 161.73	\$ 140.35	\$ 140.35
TEAM	\$ (305.71)	\$ (305.71)	\$ (335.89)	\$ (335.89)	\$ (275.53)	\$ (275.53)
Total	\$ 7,617.71	\$ 7,766.36	\$ 8,693.00	\$ 8,863.80	\$ 6,542.37	\$ 6,668.87

	AVERAGE MONTHLY BILL IMPACTS		SEASONAL BILL IMPACTS			
	Current	Proposed	Current	Proposed	Current	Proposed
	Average Monthly Bill ¹	Average Monthly Bill ¹	Summer Monthly Bill	Summer Monthly Bill	Winter Monthly Bill	Winter Monthly Bill
Commercial - M (E-32)						
Average kWh per Month	62,238	62,238	68,381	68,381	56,094	56,094
Average kW per Month	195.7	195.7	209.5	209.5	181.8	181.8
Base Rates	\$ 7,101.78	\$ 7,101.78	\$ 8,159.93	\$ 8,159.93	\$ 6,043.62	\$ 6,043.62
PSA	\$ 283.50	\$ 283.50	\$ 311.48	\$ 311.48	\$ 255.51	\$ 255.51
TCA	\$ 43.83	\$ 43.83	\$ 46.93	\$ 46.93	\$ 40.72	\$ 40.72
RES	\$ 267.35	\$ 267.35	\$ 267.35	\$ 267.35	\$ 267.35	\$ 267.35
DSMAC	\$ 69.07	\$ 69.07	\$ 73.95	\$ 73.95	\$ 64.18	\$ 64.18
EIS	\$ 6.85	\$ 6.85	\$ 7.52	\$ 7.52	\$ 6.17	\$ 6.17
Four Corners	\$ -	\$ 148.65	\$ -	\$ 170.80	\$ -	\$ 126.50
LFGR	\$ 151.04	\$ 151.04	\$ 161.73	\$ 161.73	\$ 140.35	\$ 140.35
TEAM	\$ (305.71)	\$ (305.71)	\$ (335.89)	\$ (335.89)	\$ (275.53)	\$ (275.53)
Total	\$ 7,617.71	\$ 7,766.36	\$ 8,693.00	\$ 8,863.80	\$ 6,542.37	\$ 6,668.87

	Current	Proposed	Current	Proposed	Current	Proposed
	Average Monthly Bill ¹	Average Monthly Bill ¹	Summer Monthly Bill	Summer Monthly Bill	Winter Monthly Bill	Winter Monthly Bill
Commercial S (E-32)						
Average kWh per Month	7,182		7,752	7,752	6,612	6,612
Average kW per Month	23.7		26.8	26.8	20.6	20.6
Base Rates	\$ 920.64	\$ 920.64	\$ 1,075.95	\$ 1,075.95	\$ 765.32	\$ 765.32
PSA	\$ 32.71	\$ 32.71	\$ 35.31	\$ 35.31	\$ 30.11	\$ 30.11
TCA	\$ 5.31	\$ 5.31	\$ 6.00	\$ 6.00	\$ 4.61	\$ 4.61
RES	\$ 76.81	\$ 76.81	\$ 82.90	\$ 82.90	\$ 70.71	\$ 70.71
DSMAC	\$ 8.37	\$ 8.37	\$ 9.46	\$ 9.46	\$ 7.27	\$ 7.27
EIS	\$ 0.79	\$ 0.79	\$ 0.85	\$ 0.85	\$ 0.73	\$ 0.73
Four Corners	\$ -	\$ 19.27	\$ -	\$ 22.52	\$ -	\$ 16.02
LFGR	\$ 18.30	\$ 18.30	\$ 20.69	\$ 20.69	\$ 15.90	\$ 15.90
TEAM	\$ (35.28)	\$ (35.28)	\$ (38.08)	\$ (38.08)	\$ (32.48)	\$ (32.48)
Total	\$ 1,027.65	\$ 1,046.92	\$ 1,193.08	\$ 1,215.60	\$ 862.17	\$ 878.19

ARIZONA PUBLIC SERVICE COMPANY
SCHEDULE 6 - FOUR CORNERS SCR ADJUSTMENT
Estimated Monthly Bill Impacts of Four Corners Adjustment

	AVERAGE MONTHLY BILL IMPACTS			SEASONAL BILL IMPACTS		
	Current	Proposed	% Impact	Current	Proposed	Proposed
Commercial - I (E-32)						
Average kWh per Month	290,507	290,507				
Average kW per Month	716.5	716.5				
Base Rates	\$ 27,170.32	\$ 27,170.32		\$ 314,925	\$ 314,925	\$ 266,089
PSA	\$ 1,323.26	\$ 1,323.26		\$ 795	\$ 795	\$ 638
TCA	\$ 160.50	\$ 160.50		\$ 32,337.13	\$ 32,337.13	\$ 22,003.51
RES	\$ 534.70	\$ 534.70		\$ 1,434.48	\$ 1,434.48	\$ 1,212.03
DSMAC	\$ 252.93	\$ 252.93		\$ 178.08	\$ 178.08	\$ 142.91
EIS	\$ 31.96	\$ 31.96		\$ 534.70	\$ 534.70	\$ 534.70
Four Corners	\$ -	\$ 568.71	2.03%	\$ 280.64	\$ 280.64	\$ 225.21
LFCR	\$ -	\$ -		\$ 34.64	\$ 34.64	\$ 29.27
TEAM	\$ (1,426.97)	\$ (1,426.97)		\$ -	\$ -	\$ 460.56
Total	\$ 28,046.70	\$ 28,615.41	568.71	\$ 33,252.76	\$ 33,929.62	\$ 22,840.60
			2.03%			\$ (1,307.03)
						\$ 23,301.16
Industrial - XL (E-34,35)						
Average kWh per Month	3,693,932	3,693,932				
Average kW per Month	6,369.5	6,369.5				
Base Rates	\$ 272,543.36	\$ 272,543.36		\$ 3,841,873	\$ 3,841,873	\$ 3,545,992
PSA	\$ 16,825.86	\$ 16,825.86		\$ 6,681	\$ 6,681	\$ 6,058
TCA	\$ 1,923.59	\$ 1,923.59		\$ 289,124.21	\$ 289,124.21	\$ 255,962.50
RES	\$ 3,475.00	\$ 3,475.00		\$ 17,499.73	\$ 17,499.73	\$ 16,151.99
DSMAC	\$ 2,248.43	\$ 2,248.43		\$ 2,017.66	\$ 2,017.66	\$ 1,829.52
EIS	\$ 406.34	\$ 406.34		\$ 3,475.00	\$ 3,475.00	\$ 3,475.00
Four Corners	\$ -	\$ 5,704.70	2.04%	\$ 2,358.39	\$ 2,358.39	\$ 2,138.47
LFCR	\$ -	\$ -		\$ 422.61	\$ 422.61	\$ 390.06
TEAM	\$ (18,144.60)	\$ (18,144.60)		\$ -	\$ -	\$ -
Total	\$ 279,277.98	\$ 284,982.68	5,704.70	\$ (18,871.28)	\$ (18,871.28)	\$ (17,417.91)
			2.04%			\$ 267,887.27

Notes:
1 Bill excludes regulatory assessment charge, taxes and fees. All Adjustment levels in effect as of April 1, 2018.