

ORIGINAL



0000131826

RECEIVED

2011 NOV 18 P 3:30

AZ CORP COMMISSION  
DOCKET CONTROL

Arizona Corporation Commission

DOCKETED

NOV 18 2011

DOCKETED BY

LUBIN & ENOCH, P.C.  
Nicholas J. Enoch  
State Bar No. 016473  
Jarrett J. Haskovec  
State Bar No. 023926  
349 North Fourth Avenue  
Phoenix, Arizona 85003  
Telephone: (602) 234-0008  
Facsimile: (602) 626-3586  
E-mail: [nick@lubinandenoch.com](mailto:nick@lubinandenoch.com)

Attorneys for Intervenors  
IBEW Locals 387, 640 & 769

**BEFORE THE ARIZONA**

**CORPORATION COMMISSION**

IN THE MATTER OF THE  
APPLICATION OF ARIZONA PUBLIC  
SERVICE 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, AND TO APPROVE RATE  
SCHEDULES DESIGNED TO  
DEVELOP SUCH RETURN.

Docket No. E-01345A-11-0224

**NOTICE OF FILING DIRECT  
TESTIMONY OF G. DAVID  
VANDEVER**

Pursuant to the Chief Administrative Law Judge's Procedural Order (p. 3) dated July 29, 2011, Intervenors Local Union 387, International Brotherhood of Electrical Workers, AFL-CIO, CLC ("IBEW Local 387"), Local Union 640, International Brotherhood of Electrical Workers, AFL-CIO, CLC ("IBEW Local 640"), and Local Union 769, International Brotherhood of Electrical Workers, AFL-CIO, CLC ("IBEW Local 769"), by and through undersigned counsel, hereby provide notice of its filing of the attached Direct Testimony of G. David Vandever in this docket.

RESPECTFULLY SUBMITTED this 18<sup>th</sup> day of November, 2011.

LUBIN & ENOCH, P.C.

Jarrett J. Haskovec, Esq.

Attorney for Intervenors  
IBEW Locals 387, 640 & 769

1 Original and thirteen (13) copies  
2 of Intervenor's Notice filed  
3 this 18<sup>th</sup> day of November, 2011, with:

4 Arizona Corporation Commission  
5 Docket Control Center  
6 1200 West Washington Street  
7 Phoenix, Arizona 85007-2996

8 Copies of the foregoing  
9 transmitted electronically or  
10 via regular mail this same date to:

11 Lyn Farmer, Chief ALJ  
12 Hearing Division  
13 Arizona Corporation Commission  
14 1200 West Washington Street  
15 Phoenix, Arizona 85007-2927

16 Meghan H. Grabel, Esq.  
17 Thomas L. Mumaw, Esq.  
18 Pinnacle West Capital Corporation Law Department  
19 P.O. Box 53999  
20 MS 8695  
21 Phoenix, Arizona 85072-3999  
22 Attorneys for Applicant

23 Leland Snook  
24 Zachary Fryer  
25 Kelly Hauert  
26 Pinnacle West Capital Corporation  
27 P.O. Box 53999  
28 MS 9708  
Phoenix, Arizona 85072-3999  
Representatives for Applicant

Janice Alward, Esq.  
Chief Counsel, Legal Division  
Arizona Corporation Commission  
1200 West Washington  
Phoenix, Arizona 85007-2927

Steven M. Olea, Director  
Utilities Division  
Arizona Corporation Commission  
1200 West Washington  
Phoenix, Arizona 85007-2927

1 Daniel W. Pozefsky, Esq.  
Residential Utility Consumer Office  
2 1100 West Washington, Ste. 220  
Phoenix, Arizona 85007  
3 Attorney for Intervenor

4 Jeffrey W. Crockett, Esq.  
Brownstein Hyatt Farber Schreck LLP  
5 One East Washington Street, Suite 2400  
Phoenix, AZ 85004  
6 Attorney for Intervenor AAR

7 Greg Patterson, Esq.  
Munger Chadwick  
8 2398 East Camelback Road, Ste. 240  
Phoenix, Arizona 85016  
9 Attorney for Intervenor Alliance

10 Michael M. Grant, Esq.  
Gallagher & Kennedy, P.A.  
11 2575 East Camelback Road  
Phoenix, Arizona 85016-9225  
12 Attorney for Intervenor for AIC

13 Gary M. Yaquinto  
Arizona Investment Council  
14 2100 North Central Avenue, Ste. 210  
Phoenix, Arizona 85004  
15 Representative for Intervenor

16 Karen S. White, Esq.  
Air Force Utility Law Field Support Center  
17 AFLOA/JACL-ULFSC  
139 Barnes Drive  
18 Tyndall AFB, Florida 32403  
Attorney for Intervenor FEA

19 C. Webb Crockett, Esq.  
20 Patrick J. Black, Esq.  
Fennemore Craig, P.C.  
21 3003 North Central Avenue, Ste. 2600  
Phoenix, Arizona 85012-2913  
22 Attorneys for Intervenor Freeport, *et al.*

23 Kurt J. Boehm, Esq.  
Boehm, Kurtz & Lowry  
24 36 East 7<sup>th</sup> Street, Ste. 1510  
Cincinnati, Ohio 45202  
25 Co-counsel for Intervenor Kroger

26 John W. Moore, Jr., Esq.  
7321 North 16<sup>th</sup> Street  
27 Phoenix, Arizona 85020  
Co-counsel for Intervenor Kroger

28

1 Michael A. Curtis, Esq.  
William P. Sullivan, Esq.  
2 Melissa A. Parham, Esq.  
Curtis, Goodwin, Sullivan, Udall & Schwab, P.L.C.  
3 501 East Thomas Road  
Phoenix, Arizona 85012-3205  
4 Attorneys for Intervenor Town of Gilbert

5 Michael W. Patten, Esq.  
Roshka, DeWulf & Patten, PLC  
6 400 East Van Buren Street, Ste. 800  
Phoenix, Arizona 85004  
7 Co-counsel for Intervenor TEP

8 Bradley S. Carroll, Esq.  
Tucson Electric Power Company  
9 One South Church Avenue, Ste. UE 201  
Tucson, Arizona 85701  
10 Co-counsel for Intervenor TEP

11 Timothy M. Hogan, Esq.  
Arizona Center for Law in the Public Interest  
12 202 East McDowell Road, Ste. 153  
Phoenix, Arizona 85004  
13 Attorney for Intervenor WRA, SWEEP, and ASBA/AASBO

14 David Berry  
Western Resource Advocates  
15 P.O. Box 1064  
Scottsdale, Arizona 85252-1064  
16 Representative for Intervenor

17 Barbara Wyllie-Pecora  
14410 West Gunsight Drive  
18 Sun City West, Arizona 85375  
Intervenor

19 Cynthia Zwick  
20 1940 East Luke Avenue  
Phoenix, Arizona 85016  
21 Intervenor

22 Lawrence V. Robertson, Jr., Esq.  
Attorney at Law  
23 P.O. Box 1448  
Tubac, Arizona 85646  
24 Attorney for Intervenor SWPG/Bowie and Noble/Constellation/Direct/Shell

25 Laura E. Sanchez, Esq.  
NRDC  
26 P.O. Box 287  
Albuquerque, New Mexico 87103  
27 Attorney for Intervenor NRDC

28

1 Mel Beard  
2 4108 W. Calle Lejos  
3 Glendale, Arizona 85310  
4 Intervenor

5 Jay I. Moyes, Esq.  
6 Steve Wene, Esq.  
7 Moyes Sellers & Hendricks  
8 1850 N. Central Ave., Suite 1100  
9 Phoenix, Arizona 85004  
10 Attorneys for Intervenor AzAg

11 Jeffrey J. Woner  
12 K.R. Saline & Assoc., PLC  
13 160 N. Pasadena, Suite 101  
14 Mesa, Arizona 85201  
15 Consultant for Intervenor AzAg

16 Scott S. Wakefield, Esq.  
17 Ridenour, Hienton & Lewis, P.L.L.C.  
18 201 N. Central Avenue, Suite 3300  
19 Phoenix, Arizona 85004  
20 Attorney for Intervenor Wal-Mart

21 Steve W. Chriss  
22 Senior Manager, Energy Regulatory Analysis  
23 Wal-Mart Stores, Inc.  
24 2011 S.E. 10<sup>th</sup> St.  
25 Bentonville, Arkansas 72716  
26 Representative for Intervenor Wal-Mart

27 Craig A. Marks, Esq.  
28 Craig A. Marks, PLC  
10645 N. Tatum Blvd., Ste. 200-676  
Phoenix, Arizona 85028  
Attorney for Intervenor AARP

Carrie Jones

1 **Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A1. G. David Vandever. My business address is 3060 W. Deer Valley Rd., Phoenix,  
3 Arizona 85027.

4  
5 **Q2. PLEASE DESCRIBE YOUR RECENT EMPLOYMENT.**

6 A2. I am the Business Manager/Financial Secretary for Intervenor Local Union 387,  
7 International Brotherhood of Electrical Workers, AFL-CIO, CLC ("IBEW Local  
8 387"). The position of Business Manager/Financial Secretary is an elected union  
9 position. I was elected to this position on July 15, 2010. Because all IBEW local  
10 unions also have a person holding the position of "President," it is common for  
11 persons outside of our organization to believe that the "President" is the principal  
12 officer of the Local. That is not the case. Article 17, §§ 4 and 8 of the  
13 Constitution of the International Brotherhood of Electrical Workers, AFL-CIO,  
14 clearly states that the Business Manager/Financial Secretary is the "principal  
15 officer" of any IBEW local union.

16  
17 Prior to my becoming Business Manager/Financial Secretary for IBEW  
18 Local 387, I was employed by APS for over 29 years, the last 24 as an  
19 Electric Troublemaker in Western division of Metro Operations. I served my  
20 apprenticeship for the Journeyman Lineman classification at APS from  
21 1982 through 1985.

22  
23 **Q3. WHO IS IBEW LOCAL 387?**

24 A3. IBEW Local 387 is a labor organization which, for the most part, represents non-  
25 managerial utility workers throughout most of the State of Arizona. For example,  
26 IBEW Local 387 is the duly elected and recognized exclusive bargaining agent for  
27 a substantial number of employees of Arizona Water Company, Asplundh Tree  
28 Expert Company, Graham County Electric Cooperative, Inc., Navopache Electric

1 Cooperative, Inc., and the Santa Cruz District of UniSource Energy Corporation.  
2 IBEW Local 387 is also the duly elected and recognized exclusive bargaining  
3 agent for approximately one-thousand nine-hundred (1,900) employees of APS.  
4 IBEW Local 387 and APS have entered into a long series of collective bargaining  
5 agreements (“CBA”) dating back to 1945 concerning rates of pay, wages, hours of  
6 employment, and other terms and conditions of employment. Our current 3-year  
7 CBA with APS was ratified on September 16, 2011.  
8

9 **Q4. DO YOU BELIEVE APS IS A RESPONSIBLE CORPORATE CITIZEN?**

10 A4. Absolutely. While by no means perfect, the relationship between IBEW Locals  
11 387 and APS is one which is mature, stable and in accordance with the mission of  
12 IBEW Local 387. It is clear that this stability has enured to the benefit of APS, its  
13 employees, and customers. In my opinion, the importance of the relationship  
14 between a public service corporation and its employees cannot be overstated. I  
15 firmly believe that my opinion in this regard is shared by the executives at APS.  
16

17 **Q5. WHO IS IBEW LOCAL 640?**

18 A5. Local Union 640, International Brotherhood of Electrical Workers, AFL-CIO,  
19 CLC (“IBEW Local 640”) is a sister local of IBEW Local 387. IBEW Local 640  
20 is currently supplying electricians to the Abengoa CSP solar project near Gila  
21 Bend, and stands ready to supply qualified Arizona electricians at all skill levels to  
22 support the large, utility-scale solar projects that have been mandated by the ACC.  
23 In addition, IBEW Local 640 supplies employees to various power generation  
24 plants, including the Palo Verde Nuclear Generating Station (“Palo Verde”),  
25 periodically for maintenance outages through an International Maintenance  
26 Agreement between the Arizona Building Trades and contractors such as Bechtel,  
27 GD Barri & Associates, and Day & Zimmerman. IBEW Local 640 has also  
28 provided employees to APS in the past as a part of a task force assembled to assist

1 in underground construction in residential housing developments and currently  
2 stands ready to provide qualified labor for the ongoing residential solar programs.  
3 IBEW Local 640 has a direct interest in ensuring that APS has a continued demand  
4 for its supply of qualified, efficient manpower to perform their electrical  
5 installations.

6  
7 **Q6. WHO IS IBEW LOCAL 769?**

8 A6. Like IBEW Local 640, Local Union 769, International Brotherhood of Electrical  
9 Workers, AFL-CIO, CLC ("IBEW Local 769") is another of our sister locals.  
10 IBEW Local 769 is a labor organization which represents non-managerial utility  
11 workers throughout the State of Arizona. For example, IBEW Local 769 is the  
12 duly elected and recognized exclusive bargaining agent for the employees of the  
13 Mohave County Electric Operations of UniSource, Mohave Co-Op, Frontier  
14 Communications and Griffith Power Plant. In addition, IBEW Local 769 is the  
15 exclusive bargaining agent for all IBEW outside line workers in the State of  
16 Arizona and its scope of work also includes tele-data, street light and trenching.  
17 For example, IBEW Local 769 has provided outside line construction work for  
18 APS through Wilson Construction, Klondyke, NPL, Henkels & McCoy and  
19 Sturgeon Electric, among others. Currently, IBEW Local 769 is providing  
20 bargaining unit employees to Klondyke and NPL for the installation of sub-  
21 transmission lines for APS. At any given time, IBEW Local 769 will have  
22 anywhere from five (5) to two-hundred (200) of its bargaining unit employees  
23 working for subcontractors of APS.

24  
25 **Q7. ARE IBEW LOCALS 387, 640, AND 769 SEPARATE LEGAL ENTITIES?**

26 A7. Yes. In addition, it is well-settled that our International Union and its constituent  
27 local unions, including my own, are also separate legal entities. That being said,  
28 the various IBEW Local Unions in the State of Arizona meet on a regular basis to

1 discuss issues of mutual concern and, general speaking, we are familiar with and  
2 supportive of the actions of each other.

3  
4 **Q8. DO IBEW LOCALS 387, 640, AND 769 HAVE A STAKE IN THIS**  
5 **PROCEEDING OTHER THAN IN THEIR CAPACITY AS LABOR**  
6 **ORGANIZATIONS?**

7 A8. Yes. As building owners in APS's service territory, each of the Locals fall within  
8 the definition of a "small-business" customer under the E-32 Rate Plan - *i.e.*, the  
9 standard plan for APS commercial customers who have a demand of less than  
10 3,000 kilowatts a month.

11  
12 **Q9. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 A9. I am testifying in support of APS's Application for a rate hike.

14  
15 **Q10. WHY IS THE PROPOSED RATE HIKE IN THE PUBLIC INTEREST?**

16 A10. Any public service corporation is entitled to a fair rate of return on the fair value of  
17 its property, no more and no less. IBEW Locals 387, 640, and 769 firmly believe  
18 that APS's request rate hike meets this test.

19  
20 As you know, Article XV, §3 of the Arizona Constitution expressly states that the  
21 interests of public service employees are on par with those of patrons. It reads as  
22 follows:

23 The corporation commission shall have full power to, and  
24 shall... make reasonable rules, regulations, and orders, by  
25 which such [public service] corporations shall be governed in  
26 the transaction of business within the State, and... make and  
27 enforce reasonable rules, regulations, and orders for the  
28 convenience, comfort, and safety, and the preservation of the

1 health, of the *employees* and patrons of such corporations[.]

2  
3 It goes without saying that it costs a substantial amount of money for a  
4 public service corporation to hire, train, and maintain a highly skilled work  
5 force. Similarly, it costs a great deal of money for any public service  
6 corporation to preserve the safety and health of its employees and patrons.  
7 In these tremendously difficult economic times, I am certain that many in  
8 the public may not understand, or want to understand, the need to raise their  
9 electric rates, in part, for this reason but I can assure you, APS is competing  
10 for a talented workforce, particularly when it comes to linemen, substation  
11 electricians and those working in generation. Unlike most of the national  
12 and local economy, this is one portion of the job market where demand  
13 outstrips supply. Unless APS has the ability to provide a highly competitive  
14 employment package, you can be assured that APS and, in turn, the public  
15 will suffer. I hope that this Commission and the other parties bear this is  
16 mind. I submit that it is in the “the interests of residential utility  
17 consumers”<sup>1</sup> to have a highly skilled workforce providing safe and reliable  
18 service even if that means that they are paying, what they believe to be at  
19 least, something more than rock-bottom prices for electric service. IBEW  
20 Locals 387, 640, and 769 believe that the rate relief proposed in this case  
21 will help ensure that APS will be able to meet its commitments to its  
22 employees and customers in the years to come.

23  
24 **Q11. IN YOUR ESTIMATION, HAS APS MADE SIGNIFICANT EFFORTS TO**  
25 **CONTROL LABOR-RELATED OPERATING EXPENSES DURING THE**  
26 **ECONOMIC DOWNTURN?**

27  
28 

---

<sup>1</sup> See A.R.S. §40-462(A).

1 A11. Without question. I would first note that IBEW Local 387 formerly represented  
2 approximately 2,300 bargaining unit employees when we filed direct testimony in  
3 the prior APS general rate case back in December 2008. Now, less than three  
4 years later, the number of employees Local 387 represents at APS has dropped to  
5 approximately 1,900. The numbers have dropped largely due to reductions in  
6 force and attrition, including retirements. APS has offered many employees –  
7 according to APS, precisely 1,251 employees since the beginning of the test year –  
8 early retirement incentive packages where positions were slated to be eliminated or  
9 consolidated. Accordingly, overall employment levels have been much reduced at  
10 APS from levels prevailing prior to the economic downturn. APS has also had to  
11 comply with aggressive operational expense reduction requirements in the past two  
12 rate cases, the last of which required a \$30 million annual expense reduction for  
13 five years. Given that APS's payroll represent a sizeable part of APS's expenses,  
14 APS has necessarily had to look at cuts in labor expenses to meet the required  
15 reduction levels. As a part of its compliance efforts for 2010, APS reported to the  
16 ACC on April 29, 2010, that it had cut \$5,500,000 in payroll expenses resulting  
17 from reduced staffing levels and lowered overtime costs at APS fossil plants.  
18

19 **Q12. IN THEIR APPLICATION TO INTERVENE, IBEW LOCALS 387, 640,**  
20 **AND 769 DISCUSSED EXTENSIVELY THE "AGING WORKFORCE"**  
21 **PROBLEM FACING APS AND MOST OTHER UTILITIES AND**  
22 **SUGGESTED SOME SOLUTIONS. COULD YOU PLEASE ELABORATE**  
23 **ON THIS ISSUE AND WHAT YOU PROPOSE IN THIS REGARD?**

24 A12. Certainly. As you noted, IBEW Locals 387, 640, and 769 discussed the "aging  
25 workforce" issue extensively in our application to intervene in this matter, and  
26 accordingly, I would, as a preliminary matter, refer you to the application, which I  
27 hereby incorporate by reference, for a general discussion of the scope and scale of  
28 the industry-wide problem and what some other state public utility commissions

1 have done to address it. Beyond that, I would like to share a few other  
2 observations concerning this issue and to suggest a way forward in a constructive  
3 effort to solve this problem.

4  
5 By the “aging workforce” problem, I mean the difficulties, burdens, and/or  
6 concerns associated with having a substantial share of employees in particular  
7 positions eligible to retire within the coming years and the attendant issues relating  
8 to the loss of seasoned employees with extensive experience, expertise, and  
9 institutional knowledge as well as the need to recruit, train, and replace such  
10 employees in order to ensure the continuous provision of safe and reliable service  
11 to utility customers. More precisely, when employees who have worked at APS  
12 for a decade or more retire – a set of circumstances APS currently faces and will  
13 increasingly face in the years to come – they take with them their experience, skill,  
14 and knowledge about the electrical system, company culture (including its positive  
15 safety culture), operating procedures, and applicable safety rules and standards,  
16 among other things. However, replacing such employees by hiring upon their  
17 retirement simply will not work. As I will discuss further in a moment, it literally  
18 takes years of apprenticeship and training to become adequately qualified to work  
19 in skilled positions, and generally substantially longer to hone one’s skills and  
20 develop additional expertise. Moreover, unless there is a period of overlap  
21 between the periods of service of soon-to-be-retiring employees and newly hired  
22 workers, any transfer of knowledge and know-how is not possible. Accordingly,  
23 with anticipated retirement levels rising in the approaching years, APS faces both a  
24 challenge and an opportunity to ensure that it continues to attract and employ fully  
25 qualified personnel consonant with its efforts to provide safe and reliable service  
26 to customers.

27  
28 The IBEW Utility Department Director, James Hunter, addressed this issue in an

1 interview last year. He explained that utilities are losing, and will continue to lose,  
2 a large percentage of their workforce, including linemen and other skilled workers,  
3 each year to retirement. However, without an adequate pipeline of new workers  
4 and an opportunity to train them to become fully qualified and develop necessary  
5 expertise and knowledge before more experienced employees retire, utilities are at  
6 serious risk of having inadequate levels of fully qualified staff to carry out their  
7 mandates of providing safe and reliable service to customers. He noted that this  
8 problem has been exacerbated by the pressure placed on utilities during the  
9 economic downturn by state public utility commissions to keep operating  
10 expenses, and, in turn, rates, as low as possible, prompting many utilities to  
11 institute hiring freezes and to offer early retirement incentive packages to veteran  
12 workers. As a result, most utilities are having a difficult time keeping pace with  
13 historical attrition levels, much less ramping up hiring in anticipation of the  
14 impending wave of retirements. The webcast for the interview is available at  
15 [http://www.ibew.org/articles/10daily/1009/100914\\_HunterInterview.htm](http://www.ibew.org/articles/10daily/1009/100914_HunterInterview.htm).

16  
17 APS has recognized in its direct testimony that this is a significant challenge it will  
18 face in the near future, noting that 38% percent of Energy Delivery's regular  
19 employees will be eligible to retire within the next five (5) years and fully 50%  
20 percent of Fossil Generation's employees will be eligible to retire by 2014.<sup>2</sup> These  
21 numbers will keep growing as time goes on. APS's Response to IBEW Locals'  
22 First Set of Data Requests, attached hereto as Exhibit A, tells the same story. APS  
23 has likewise specifically identified this issue in the Company's Form 10-K filing  
24 for the fiscal year ended December 31, 2010, as an "employee workforce factor[]  
25 that could adversely affect [its] business and financial condition." This is  
26

---

27  
28 <sup>2</sup> See, e.g., Testimony of Daniel T. Froetscher, pp. 19-20; Testimony of Mark A. Schiavoni, p. 26.

1 consistent with my own understanding of the magnitude of the impending wave of  
2 retirements at APS based on discussions with employees and my own experience  
3 at the Company.

4  
5 The situation regarding APS's journeyman linemen and journeyman electricians is  
6 illustrative of this concern. Journeyman linemen at APS generally perform  
7 electrical line construction and maintenance work, among other things.

8 Journeyman electricians typically perform a variety of electrical, mechanical, and  
9 structural construction and maintenance activities related to electric substations,  
10 underground cables, and ground-mounted equipment. Both positions require  
11 highly-skilled employees to perform this dangerous work and to ensure the  
12 delivery of safe and reliable electric service to customers. Such work is also  
13 physically demanding and generally involves a great deal of work outside and  
14 occasionally in inclement weather.

15  
16 Based on numbers provided by APS, 24 out of 184 regular journeyman linemen, or  
17 13%, are presently eligible for retirement. Assuming current staffing levels, the  
18 number of journeyman lineman eligible for retirement will rise to 57, or 31%, by  
19 December 31, 2016. Similarly, 5 out of the 15, or one-third (33%) of all,  
20 journeyman linemen designated to do "hot stick" work (involving the use of  
21 insulated poles to work on high-voltage, energized power lines) are already  
22 retirement eligible at present. For journeyman electricians, 13 out of 112, or 12%,  
23 are currently retirement eligible. By the end of 2016, the number of retirement-  
24 eligible journeyman electricians will likely rise to 39, or 35%.

25  
26 The figures for control and auxiliary operators, who operate and control power  
27 plant (and related) equipment, and E&I technicians, who perform instrumentation  
28 and electrical maintenance work, are in many ways even more concerning. Based

1 on APS's figures, for auxiliary operators designated PS3T2 AO/MECH MNTC,  
2 which is by far the largest contingent of auxiliary operators at APS, 32 out of 110,  
3 or 29%, are currently eligible to retire, a figure that will increase to 61, or over  
4 55% (assuming present staffing levels), by December 31, 2016. As for the three  
5 E&I technician designations at APS (namely, E&I TECH ELECT/ADV INSTR,  
6 E&I TECH INSTR REPR/ADV ELECT, AND E&I Technician), 72%, 41%, and  
7 13% of these designations, respectively, are currently retirement eligible. By the  
8 end of 2016, these percentages are projected to reach as high as 90%, 88%, and  
9 46%, respectively.

10  
11 It takes a great deal of time and training to become fully qualified in each of these  
12 positions. For the journeyman lineman and journeyman electrician positions, the  
13 term of apprenticeship consists of a minimum of 8,000 hours, or approximately 4  
14 years, of training with not less than 576 hours of related instruction. For E&I  
15 technicians, the term of apprenticeship is 4.3 years. For control operators and  
16 auxiliary operators, the term of apprenticeship is 4 years and up to 3 years,  
17 respectively.

18  
19 Because of the extensive training required to perform these highly-skilled and  
20 inherently dangerous jobs, APS must expend a substantial amount of money for  
21 each employee it hires in each of these classifications to become fully qualified  
22 and at least minimally capable of replacing a more seasoned employee who retires.  
23 APS has indicated that it incurs the following average costs (including wages  
24 during apprenticeship and training costs) to replace one existing, fully-qualified  
25 employee in each classification:

- 26 • for journeyman linemen and journeyman electricians, \$250,000 per employee;
- 27 • for E&I technicians, \$213,000 per employee;
- 28 • for control operators, \$211,000 per employee; and

1 • for auxiliary operators, \$154,000 per employee.  
2

3 In light of these costs, it is imperative that APS be afforded rate relief sufficient to  
4 allow it to ramp up its hiring in these and other classifications in the short-term so  
5 that APS may have an appropriate number of fully-qualified personnel in place  
6 when the impending wave of retirements begins to hit in order to secure its ability  
7 to provide safe and reliable service on an ongoing basis. To this end, IBEW  
8 Locals 387, 640, and 769 propose that APS receive substantial dedicated funds –  
9 over and above what APS presently seeks in the form of rate relief – to enable it to  
10 increase its hiring significantly to meet these challenges effectively. We propose  
11 that the mechanism by which these efforts would be funded would be in the form  
12 of a charge to customers, and further that APS track and report annually the actual  
13 level of new hiring and the overall staffing levels in these positions.  
14

15 Given the above costs and retirement eligibility figures provided by the Company,  
16 for APS to hire and train new workers to replace the literally hundreds of veteran  
17 bargaining unit employees who are set to retire prior to the end of 2016, it would  
18 cost the Company approximately \$59,429,000. This figure would simply cover  
19 replacing retiring employees in the above highly-skilled classifications; it does not  
20 include costs of hiring new employees in many other positions, nor does it include  
21 costs associated with recruiting and hiring personnel in the above classifications,  
22 among other costs.  
23

24 We recognize and are sensible of the fact that the Commission is not in a position,  
25 particularly in these tough economic times, to grant the rate relief necessary to  
26 enable APS to set about hiring in order to replace all such employees and to  
27 preserve the already much diminished 2011 levels of staffing. If we assume that  
28 the impending wave of retirements merely represents a doubling of the historical

1 rate of retirement in these classifications – a very conservative assumption, it  
2 would seem, in light of the historical retirement data provided by APS – and  
3 accordingly discount these figures to exclude the retirements that would have  
4 likely occurred anyway, this cost would drop to \$29,714,500. Although admittedly  
5 not all of the retirements in these classifications would hit before the probable  
6 filing date of the next APS rate case under the prior settlement agreement, it must  
7 be recognized that the prescribed period of training for most of these positions is  
8 four years or more. The Commission, therefore, must allow at least that much lead  
9 time to APS. Given that APS is seeking an effective new rate date of July 1, 2012,  
10 without action in this rate case, APS would almost certainly not be positioned to do  
11 the hiring necessary to ensure that sufficient numbers of fully-qualified personnel  
12 would be in place by the end of 2016.

13  
14 For all these reasons, it is critically important that APS be afforded rate relief  
15 sufficient to enable it to undertake the recruiting and hiring efforts necessary to  
16 ensure the provision of safe and reliable electric service in years to come.

17  
18 **Q13. DOES THIS CONCLUDE YOUR TESTIMONY?**

19 **A13. Yes.**

20 F:\Law Offices\client directory\IBEW L 387\APS\100\pleadings\2011 11 18 Vandever Direct Testimony.wpd

**EXHIBIT A**



**JEFFREY W. JOHNSON**  
Regulatory Affairs Supervisor  
State Regulation

Mail Station 9708  
PO Box 53999  
Phoenix, Arizona 85072-3999  
Tel 602-250-2661  
Jeffrey.Johnson@aps.com

November 7, 2011

Nicholas J. Enoch  
Lubin & Enoch, P.C.  
349 North Fourth Avenue  
Phoenix, AZ 85003

RE: Arizona Public Service Company's 2010 Test Year Rate Case  
Docket No. E-01345A-11-0224

Attached, please find Arizona Public Service Company's Response to IBEW's First Set of Data Requests in the above-referenced matter.

If you have any questions regarding this information, please contact Zachary Fryer at (602)250-4167.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey W. Johnson", written over a horizontal line.

Jeffrey W. Johnson

JJ/cd  
Attachment

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

- IBEW 1.1: Describe the Electrician-Journeyman position by stating:
- A. The job description and qualifications;
  - B. The business unit or portfolio (e.g., Energy Delivery, Fossil Generation) with which such position is associated for purposes of company organization;
  - C. The number of Electrician-Journeyman positions at APS; and
  - D. The nature of the work performed including, *inter alia*, what role they serve in promoting the convenience, comfort, and safety, and the preservation of the health, of the employees and patrons of APS.

- Response:
- A. Generally, a Journeyman Electrician performs electrical, mechanical, and structural construction and/or maintenance activities related to electric substations, as well as the installation and maintenance of underground cables and ground mounted equipment such as switches and transformers. Generally, to qualify as a Journeyman Electrician, an individual must complete the APS Electrician Apprenticeship or other accredited Electrician program and demonstrate the required skills and knowledge of a Journeyman Electrician.
  - B. Energy Delivery and Shared Services.
  - C. 112.
  - D. See response to IBEW 1.1 A above.

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.2: Describe the Lineman-Journeyman position by stating:

- A. The job description and qualifications;
- B. The business unit or portfolio (*e.g.*, Energy Delivery, Fossil Generation) with which such position is associated for purposes of company organization;
- C. The number of Lineman-Journeyman positions at APS; and
- D. The nature of the work performed including, *inter alia*, what role they serve in promoting the convenience, comfort, and safety, and the preservation of the health, of the employees and patrons of APS.

Response:

- A. Generally, a Journeyman Lineman performs both overhead and underground electrical line construction and/or maintenance activities. These include the installation of utility poles, installing and repairing overhead wires and underground cables, and the installation of pole mounted and grounded mounted equipment such as switches or transformers. Work on overhead power lines can be performed by either climbing a utility pole or through the utilization of an aerial man-lift (bucket). Generally, to qualify as a Journeyman Lineman, an individual must complete the APS Electrician Apprenticeship or other accredited Lineman program and demonstrate the required skills and knowledge of a Journeyman Lineman.
- B. Energy Delivery.
- C. 184.
- D. See response to IBEW 1.2(A) above.

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.3: Describe the Technician-E&I position by stating:

- A. The job description and qualifications;
- B. The business unit or portfolio (*e.g.*, Energy Delivery, Fossil Generation) with which such position is associated for purposes of company organization;
- C. The number of Technician-E&I positions at APS; and
- D. The nature of the work performed including, *inter alia*, what role they serve in promoting the convenience, comfort, and safety, and the preservation of the health, of the employees and patrons of APS.

Response:

- A. Please see the attached job description and qualifications for E&I Journeyman, APS14984.
- B. Fossil Generation
- C. 100.
- D. Please see the attached job description and qualifications for E&I Journeyman, APS14984.

## Job Title: E & I Journeyman

**Function:** Supports the safe, efficient and cost effective production of electrical energy by performing Instrumentation and Electrical Maintenance work. Writes/reviews work scope and hazard/risk assessment of the work assignment. Performs other duties as assigned.

### Requirements:

Reasonable and necessary overtime will be required. Shift work may be required.

**Qualifications:** Must qualify as an Electrical and Instrumentation Journeyman or equivalent.

### Minimum Requirements:

Applicant must:

1. Successfully complete E&I Apprenticeship or demonstrate equivalent skills and knowledge.

### Job Description:

1. Read work orders, Technical manuals, schematics, wiring diagrams; Control Wiring Diagrams (CWDs) and other diagrams related to the work assignment. Enters and manipulates data in a maintenance computer system to record maintenance activity. Maintains instrumentation lists, parameters and settings. Uses troubleshooting software such as Pi, DB Doc, CITECT and vendor internet sites for graphs and trends. Operates recorders, desktop and laptop computers.
2. Inspects and tests electrical and instrumentation equipment and circuits and analyzes test data to identify malfunctions or defects using wiring diagrams and testing devices.
3. Removes, disassembles, calibrates and maintains electrical and instrumentation equipment, controls, fixtures and appliances including digital and analog controls, tune and maintain on line and off line configurations on Distributive Control Systems (DCS), solid state circuits, process flows and controls, programmable logic controllers, interlocks, recorders and frequency generators, pneumatic and hydraulic actuators, positioners, pressure switches, flame scanners, control valves, dampers, thermocouples and RTDs, motors, batteries, battery chargers, Uninterruptable Power Supply (UPS), gantry and overhead cranes, exciter brushes, grounding brushes, contactors and metering using hand tools and power tools, cuts, bends and threads pipe, tubing and conduit to specifications using tools such as pipe, conduit and tube cutters, benders and threaders.
4. Install, test, clean, remove, repair and troubleshoot medium and low voltage circuit breakers and related protective relay equipment and transformers. Sets up, verifies settings and interprets data from protective relays. Install, inspects and repairs proper grounds on high voltage lines and transformers up to and including the generator. Maintain grounding grids, perform cadmium welds, install grounding trucks/breakers following all grounding and bonding procedures using live line tools such as shotguns, hot sticks, rubber gloves, rubber mats and blankets, live/dead/live and arc flash procedures.
5. Knowledge of APM and safety standards related to electrical and instrumentation maintenance such as grounding and bonding procedures, arc-flash protection, Possible Asbestos Containing Material procedures (PACM), Material Safety Data Sheets (MSDS), confined space entry, Company LOTO procedure, personal protective equipment including face, hand and body shields, the use and care of voltage rated rubber gloves, scaffold inspection, ladder safety, hazardous material handling and all material contained in the Accident Prevention Manual.

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

- IBEW 1.4: Describe the Operator-Power Plant position by stating:
- A. The job description and qualifications;
  - B. The business unit or portfolio (*e.g.*, Energy Delivery, Fossil Generation) with which such position is associated for purposes of company organization;
  - C. The number of Operator-Power Plant positions at APS; and
  - D. The nature of the work performed including, *inter alia*, what role they serve in promoting the convenience, comfort, and safety, and the preservation of the health, of the employees and patrons of APS.

Response: APS does not have a job title "Operator-Power Plant", but does have the positions of Control Operator and Auxiliary Operator. APS provides the following information for those positions:

- A. Please see the job description and qualifications for Control Operator and Auxiliary Operator attached as APS14985 and APS14986.
- B. Fossil Generation
- C. 75 Control Operators and 111 Auxiliary Operators.
- D. Please see the job description and qualifications for Control Operator and Auxiliary Operator attached as APS14985 and APS14986.

## **Job Title: Control Operator**

**Function:** Supports the safe, efficient and cost effect production of electric energy by operating and controlling power plant equipment. Monitors instrumentation to determine plant conditions. Performs actions necessary to keep the plant operating within prescribed limits. Writes/reviews work scope and hazard/risk assessment of the work assignment. Performs other duties as assigned.

### **Requirements:**

Reasonable and necessary overtime will be required. Shift work may be required.

**Qualifications:** Completion of Control Operator Trainee Curriculum or equivalent.

### **Minimum Requirements:**

Applicant must be qualified as an Auxilliary Operator

### **Job Description:**

1. Reads work orders, technical manuals, blueprints and diagrams related to the work assignment. Writes/reviews work scope and hazard/risk assessment of the work assignment.
2. Knowledge of APM and safety standards related to work such as personal protective equipment, hazardous material handling, asbestos containing material (ACM) awareness, MSDS, confined space entry, company LOTO procedures, ladder safety, rigging and hand signals, and all material contained in the accident prevention manual. This may include preparation of LOTOs.
3. Monitor, adjust and regulate equipment operations and conditions such as water, fuel and air flow based on data from recording and indicating instruments or from computers controls to generate specified electrical power or to regulate the flow of power to the power grid. Adjust generation voltage and current output based on system conditions.
4. Monitor and inspect the Distributive Control System indicators (DCS), alarms, charts, meters, gauges, log books, safety devices and power plant equipment and communicate with other plant personnel to detect evidence of abnormal conditions with boilers, turbines, generators and auxiliary equipment.
5. Assess trends and analyze abnormal conditions to troubleshoot and take corrective action such as adjusting controls or initiating maintenance requests to ensure continuous and reliable operation of equipment and systems.
6. Start or stop generators, emergency generators, auxiliary pumping equipment, turbines, and other power plant equipment following proper procedures and sequences and coordination with co-workers.
7. Direct personnel to open and close valves, breakers and switches in sequence in the control of auxiliary equipment such as pumps, fans, compressors, condensers, feed water heaters, filters, pulverizers, and chemical injection equipment, to supply water, fuel, lubrication, air, and auxiliary power and control waste water, and ash disposal.
8. Monitors emissions to comply with all regulatory requirements.
9. Direct others with the connection/disconnection of equipment from electrical circuits, water, steam and air systems to isolate equipment for removal, maintenance or return to service following the Company LOTO procedure.
10. Communicate with systems operators to regulate and coordinate transmission loads, frequencies and line voltages.
11. Communicate with Supervisor Operations Crew Leader, peers, or subordinates by radio, telephone, in written form, e-mail, or in person to provide and receive information utilizing three way communication and the phonetic alphabet.
12. Record and compile operational data, completing and maintaining forms, logs, and reports to document start-ups, shut-downs, load curtailment, test reports, generation, etc.
13. Must have basic computer skills.
14. General understanding of Production and Processing of raw materials such as coal, water, lime; production processes and other techniques for maximizing the effective generation of electricity.

## **Intermediate Instrumentation**

### **Description:**

1. The intent of the Intermediate Instrumentation skill set is to aid in the troubleshooting-determining causes of electrical, hydraulic, pneumatic, or mechanical failure of instrumentation devices.
2. General understanding of the function, operation, and internal parts of electrical, hydraulic and pneumatic control systems including relays, timers, regulators, circuit breakers, fuses, switches, distribution equipment, control valves, dampers, actuators, controllers, conductors, thermocouples, RTD's, and supervisory equipment.
3. General understanding of power plant systems/processes and the function of the equipment within the system including ignition, combustion, boiler, turbine, control valves, supervisory, generator, water chemistry, distribution controls, solid state, hydraulic systems, emissions, purge, recorders, excitation, computer devices, circuit breakers and test equipment.
4. General understanding of basic electrical theory.
5. General understanding of instrumentation and techniques used in measuring level, volume, temperature, flow, motion and process control and instrumentation used in testing circuits and components including voltage testers, ammeters, ohmmeters, and multimeters.
6. General understanding of control and wiring diagrams (CWD's), piping & instrumentation diagrams (P&ID's), logic diagrams and drawing and diagram symbols.
7. General understanding of the mechanical parts of instrumentation equipment and parts such as drivers, and valves, fasteners and anchors, gaskets and packing, seals, filters, bushings, sleeves, rings and liners.
8. General understanding of industrial math: add, subtract, multiply, divide, fractions, decimals, basic algebra and geometry to solve for area, volume, circumference, right angles and solve process math problems with mass, weight, pressure, temperature, and flow and conversion of units.
9. General understanding of plant science and process dynamics.

**Training Objectives:** Training required to maintain proficiency in the craft.

## **Job Title: Auxiliary Operator**

**Function:** Supports the safe, efficient and cost effective production of electric energy by operating and monitoring turbines, generators, scrubbers, bag houses, and plant auxiliary equipment. Performs chemical analysis of boiler water, wells, and circulating water and operating water treatment and chemical addition systems and minor mechanical maintenance. Writes/reviews work scope and hazard/risk assessment of the work assignment. Performs other duties as assigned. NOTE: 4C Board Operator and 4C Scrubber AO have been replaced by the Auxiliary Operator position.

### **Requirements:**

1. Reasonable and necessary overtime will be required. Shift work may be required.
2. Must qualify for fire brigade duties (specific plants only).

**Qualifications:** Must qualify as an Auxiliary Operator.

### **Minimum Requirements:**

Applicant must have completed Auxiliary Operator Trainee curriculum or equivalent.

### **Job Description:**

1. Reads work orders, technical manuals, blueprints and diagrams related to the work assignment. Writes/reviews work scope and hazard/risk assessment of the work assignment.
2. Knowledge of APM and safety standards related to auxiliary operator work such as personal protective equipment, hazardous material handling, asbestos containing material (ACM) awareness, MSDS, confined space entry, company LOTO procedures, ladder safety, arc flash protection, and all material contained in the accident prevention manual.
3. Take field readings from charts, meters, and gauges at established intervals to ensure proper and efficient operation of the plant.
4. Diagnose and correct equipment, system problems and other abnormal operating conditions by monitoring and inspecting power plant equipment.
5. Communicate with Control Operator on any abnormal conditions. Coordinate any field action with the Control Operator.
6. Reports any need for equipment repair.
7. Under the direction of the Control Operator, manipulate field controls on all power plant auxiliary equipment. This includes the following systems such as boilers, turbines, water, fuel, air, ash handling, pollution control systems, auxiliary power etc. The operation of pumps, fans, compressors, condensers, feed water heaters, filters, chemical injection equipment, scrubbers, ZLDs, bag houses etc.
8. Operate and close valves, dampers, switches, and breakers in the appropriate sequence following operating procedures to shut down and start up equipment.
9. Isolate equipment from all energy sources to remove, inspect or maintain it by identifying the proper equipment and corresponding valves, breakers, switches. Hang LOTO tags at boundary points following the company LOTO procedure to ensure the safety of personnel and equipment.
10. Inspect records and log book entries, and communicate with other plant personnel, in order to assess equipment operating status.
11. Clean and ensure the proper lubrication of equipment such as generators, turbines, pumps, fans, conveyors, and compressors in order to prevent equipment failure or deterioration. Checks oil levels, lubricates, joints, adjust belts and tensioners, replace filters, tighten gland and pipe joints for preventative maintenance.
12. Record and compile operational data, completing and maintaining forms, logs, and reports.
13. Collect water and oil samples for laboratory analysis.
14. Perform laboratory analysis on water samples. At Cholla the Water Analyst Position will be required to qualify as an AO on one of the AO areas.
15. Reset tripped electric relays in coordination with the Control Operator following arc flash protection procedures.
16. Clear obstructions in filters and equipment by removing debris and back flushing such as with heat exchangers.

17. Analyze field problems such as hot bearings, plugged filters, low oil, clogged heat exchangers, bottom ash build up, loss of coal flow, lime flow drop off, etc. and take appropriate action to ensure continuous and reliable operation of equipment and systems.
18. Respond to emergencies such as fires, hazardous material spills and excess water spills.
19. Communicate with Supervisor, Operations Crew Leader and peers by radio, telephone, in written form, e-mail, or in person to provide and receive information-particularly at shift turnover.
20. Identify and report to the Control Operator all items that have an adverse impact on unit and/or equipment efficiency and reliability.

### **Basic Mechanical Maintenance**

#### **Description:**

1. Performs an assessment of the malfunction of the mechanical equipment by listening, looking, hearing, smelling and feeling the condition of the equipment and by consulting with operations personnel.
2. Verifies the proper isolation of the mechanical equipment from energy sources before performing work using the company clearance procedure.
3. Performs basic maintenance equipment repair and replacement on mechanical equipment including pumps, valves, motors, compressors, blowers, fans, gear boxes, heat exchangers, hydraulic systems, conveyers, and piping.
4. Disassembles mechanical equipment with hand tools, power and pneumatic tools including wrenches, hammers, files, saws, drills, grinders, pullers, measuring devices and cutting torches.
5. Moves machinery and equipment using hoists, jacks, dollies, rollers, trucks and mobile equipment.
6. Diagnoses mechanical problems and determines corrective action checking blueprints and repair manuals.
7. Inspects internal parts of the mechanical equipment for defects, excessive wear and broken parts by visual examination.
8. Reassembles internal parts including bushings, bearings, sleeves, rings, liners, mechanical seals, packing gears and wheels, lubricants and housing; installs the mechanical equipment back in the system.
9. Supports overhaul and repair work on boilers, generators, steam and combustion turbines as a member of a work team involving the safe coordination of multiple projects in close proximity, communicating with others to disassemble, move, and replace large pieces of equipment and meet outage schedules.
10. Assembles, installs, and repairs threaded metal and PVC piping systems.
11. Cleans, adds/replaces fluids, change filters and lubricates shafts, bearings, gears and other moving machinery parts, inspects and adjusts belts, packing, rollers, and pulleys, for preventative maintenance.

**Training Objectives:** Training required to maintain proficiency in the craft.

**Advancement:** After demonstrating proficiency as an Auxiliary Operator, individuals may voluntarily train for Control Operator.

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.5: Please identify the present mean and median ages of APS's work force with respect to the following job classifications:

- A. Electrician-Journeyman
- B. Lineman-Journeyman,
- C. Technician-E&I, and
- D. Operator-Power Plant.

Response: A, B, C and D.

Job		Head Count	Age_Mean	Age_Median
Auxiliary Operators	Oper Auxiliaries	1	52.1	52.1
Auxiliary Operators	Ops Tech Trainee T-1	1	28.2	28.2
Auxiliary Operators	OTTRNEET1 CONTROL OP/MECH MNTC	8	53.4	52.2
Auxiliary Operators	PS3T2 AO / MECH MNTC	110	49.0	52.1
Auxiliary Operators	PS3T2 MECH MNTC / AO	3	51.3	46.2
Control Operator	Control Operator	3	43.1	36.9
Control Operator	Oper Control	1	53.6	53.6
Control Operator	OPS TECH CONTROL OP/INT INSTR	24	49.2	52.3
Control Operator	OPS TECH CONTROL OP/MECH MNTC	50	49.5	51.1
Control Operator	OPS TECH CONTROL OP/PLATE WELD	1	58.0	58.0
Electrician-Journeyman	Electrician	112	46.5	45.1
Lineman-Journeyman	Lineman Hotstick	15	44.8	39.0
Lineman-Journeyman	Lineman Journeyman	184	44.5	43.5
Technician-E&I	E&I TECH ELECT / ADV INSTR	29	58.0	59.0
Technician-E&I	E&I TECH INSTR REPR/ADV ELECT	17	55.0	55.1
Technician-E&I	E&I Technician	54	48.1	50.1

Witness: Daniel T. Froetscher  
Page 1 of 1

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.6: Please state, for each the past five (5) calendar years, the share of retirement-eligible employees, both as a percentage and in absolute terms, in each of the job classifications referenced in the preceding data request, who opted to retire.

Response: Below are the percentages and number of individuals in each of the job classifications that retired from 2010 to present:

**Retirements: 2006-2010**

Job		2006	2007	2008	2009	2010
Auxiliary Operators	Oper Auxiliaries	0	0	0	1	1
Auxiliary Operators	Ops Tech Trainee T-1	0	0	0	0	0
Auxiliary Operators	OTTRNEET1 CONTROL OP/MECH MNTC	0	0	0	0	0
Auxiliary Operators	PS3T2 AO / MECH MNTC	0	0	0	0	5
Auxiliary Operators	PS3T2 MECH MNTC / AO	6	9	8	3	22
Control Operator	Control Operator	1	1	2	0	1
Control Operator	Oper Control	0	0	0	1	0
Control Operator	OPS TECH CONTROL OP/INT INSTR	0	0	0	3	1
Control Operator	OPS TECH CONTROL OP/MECH MNTC	0	0	0	0	3
Control Operator	OPS TECH CONTROL OP/PLATE WELD	0	0	0	0	0
Electrician-Journeyman	Electrician	1	8	7	1	6
Lineman-Journeyman	Lineman Hotstick	0	0	0	0	0
Lineman-Journeyman	Lineman Journeyman	4	6	10	7	9
Technician-E&I	E&I TECH ELECT / ADV INSTR	0	0	0	0	3
Technician-E&I	E&I TECH INSTR REPR/ADV ELECT	0	0	0	0	8
Technician-E&I	E&I Technician	12	10	8	15	23

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
 REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
 DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
 DOCKET NO. E-01345A-11-0224  
 OCTOBER 26, 2011

**Retirements: 2006-2010**

Job		2006	2007	2008	2009	2010
Auxiliary Operators	Oper Auxiliaries	0%	0%	0%	0%	0%
Auxiliary Operators	Ops Tech Trainee T-1	0%	0%	0%	0%	0%
Auxiliary Operators	OTTRNEET1 CONTROL OP/MECH MNTC	0%	0%	0%	0%	0%
Auxiliary Operators	PS3T2 AO / MECH MNTC	0%	0%	0%	0%	2%
Auxiliary Operators	PS3T2 MECH MNTC / AO	3%	4%	4%	1%	11%
Control Operator	Control Operator	0%	0%	1%	0%	0%
Control Operator	Oper Control	0%	0%	0%	0%	0%
Control Operator	OPS TECH CONTROL OP/INT INSTR	0%	0%	0%	1%	0%
Control Operator	OPS TECH CONTROL OP/MECH MNTC	0%	0%	0%	0%	1%
Control Operator	OPS TECH CONTROL OP/PLATE WELD	0%	0%	0%	0%	0%
Electrician-Journeyman	Electrician	0%	4%	3%	0%	3%
Lineman-Journeyman	Lineman Hotstick	0%	0%	0%	0%	0%
Lineman-Journeyman	Lineman Journeyman	2%	3%	5%	3%	4%
Technician-E&I	E&I TECH ELECT / ADV INSTR	0%	0%	0%	0%	1%
Technician-E&I	E&I TECH INSTR REPR/ADV ELECT	0%	0%	0%	0%	4%
Technician-E&I	E&I Technician	6%	5%	4%	7%	11%

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.7: Please state the share of employees, both as a percentage and in absolute terms, in each of the job classifications referenced in the preceding data request who are presently retirement eligible.

Response:

**Retirement Eligibility Summary**

Job		Current (9/30/11)	Current (9/30/11)
Auxiliary Operators	Oper Auxiliaries	0	0%
Auxiliary Operators	Ops Tech Trainee T-1	0	0%
Auxiliary Operators	OTTRNEET1 CONTROL OP/MECH MNTC	3	38%
Auxiliary Operators	PS3T2 AO / MECH MNTC	32	29%
Auxiliary Operators	PS3T2 MECH MNTC / AO	1	33%
Control Operator	Control Operator	0	0%
Control Operator	Oper Control	0	0%
Control Operator	OPS TECH CONTROL OP/ INT INSTR	7	29%
Control Operator	OPS TECH CONTROL OP/ MECH MNTC	14	28%
Control Operator	OPS TECH CONTROL OP/PLATE WELD	1	100%
Electrician- Journeyman	Electrician	13	12%
Lineman-Journeyman	Lineman Hotstick	5	33%
Lineman-Journeyman	Lineman Journeyman	24	13%
Technician-E&I	E&I TECH ELECT / ADV INSTR	21	72%
Technician-E&I	E&I TECH INSTR REPR/ADV ELECT	7	41%
Technician-E&I	E&I Technician	7	13%

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.8: Please state: (1) the share of employees, both as a percentage and in absolute terms, in each of the job classifications referenced in the preceding data request who will be retirement eligible between the present and December 31, 2012; and (2) anticipated hiring and attrition levels for each of the job classifications referenced in the preceding data request between the present and December 31, 2012.

Response: APS provides the following information on retirement eligibility between September 30, 2011 and December 31, 2012 and does not have information to respond to anticipated hiring and attrition levels.

**Retirement Eligibility Summary**

Job		9/30/11 -12/31/12	9/30/11 -12/31/12
Auxiliary Operators	Oper Auxiliaries	0	0%
Auxiliary Operators	Ops Tech Trainee T-1	0	0%
Auxiliary Operators	OTTRNEET1 CONTROL OP/MECH MNTC	0	0%
Auxiliary Operators	PS3T2 AO / MECH MNTC	7	6%
Auxiliary Operators	PS3T2 MECH MNTC / AO	0	0%
Control Operator	Control Operator	0	0%
Control Operator	Oper Control	0	0%
Control Operator	OPS TECH CONTROL OP/ INT INSTR	2	8%
Control Operator	OPS TECH CONTROL OP/ MECH MNTC	2	4%
Control Operator	OPS TECH CONTROL OP/PLATE WELD	0	0%
Electrician- Journeyman	Electrician	2	2%
Lineman- Journeyman	Lineman Hotstick	0	0%
Lineman- Journeyman	Lineman Journeyman	7	4%
Technician-E&I	E&I TECH ELECT / ADV INSTR	3	10%
Technician-E&I	E&I TECH INSTR REPR/ADV ELECT	1	6%
Technician-E&I	E&I Technician	2	4%

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.9: Please state: (1) the share of employees, both as a percentage and in absolute terms, in each of the job classifications referenced in the preceding data request who will be retirement eligible between January 1, 2013, and December 31, 2014; and (2) anticipated hiring and attrition levels for each of the job classifications referenced in the preceding data request between January 1, 2013, and December 31, 2014.

Response: APS provides the following information on retirement eligibility between January 1, 2013 and December 31, 2014 and does not have information to respond to anticipated hiring and attrition levels.

**Retirement Eligibility Summary**

	Job	1/1/13 - 12/31/14	1/1/13 - 12/31/14
Auxiliary Operators	Oper Auxiliaries	1	100%
Auxiliary Operators	Ops Tech Trainee T-1	0	0%
Auxiliary Operators	OTTRNEET1 CONTROL OP/MECH MNTC	1	13%
Auxiliary Operators	PS3T2 AO / MECH MNTC	11	10%
Auxiliary Operators	PS3T2 MECH MNTC / AO	0	0%
Control Operator	Control Operator	0	0%
Control Operator	Oper Control	0	0%
Control Operator	OPS TECH CONTROL OP/ INT INSTR	3	13%
Control Operator	OPS TECH CONTROL OP/ MECH MNTC	6	12%
Control Operator	OPS TECH CONTROL OP/PLATE WELD	0	0%
Electrician- Journeyman	Electrician	13	12%
Lineman-Journeyman	Lineman Hotstick	0	0%
Lineman-Journeyman	Lineman Journeyman	13	7%
Technician-E&I	E&I TECH ELECT / ADV INSTR	2	7%
Technician-E&I	E&I TECH INSTR REPR/ADV ELECT	5	29%
Technician-E&I	E&I Technician	7	13%

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.10: Please state: (1) the share of employees, both as a percentage and in absolute terms, in each of the job classifications referenced in the preceding data request who will be retirement eligible between January 1,2015, and December 31,2016; and (2) anticipated hiring and attrition levels for each of the job classifications referenced in the preceding data request between January 1,2015, and December 31,2016.

Response: APS provides the following information on retirement eligibility between January 1, 2015 and December 31, 2016 and does not have information to respond to anticipated hiring and attrition levels.

**Retirement Eligibility Summary**

Job		1/1/14 - 12/31/16	1/1/14 - 12/31/16
Auxiliary Operators	Oper Auxiliaries	0	0%
Auxiliary Operators	Ops Tech Trainee T-1	0	0%
Auxiliary Operators	OTTRNEET1 CONTROL OP/MECH MNTC	2	25%
Auxiliary Operators	PS3T2 AO / MECH MNTC	11	10%
Auxiliary Operators	PS3T2 MECH MNTC / AO	0	0%
Control Operator	Control Operator	0	0%
Control Operator	Oper Control	0	0%
Control Operator	OPS TECH CONTROL OP/ INT INSTR	3	13%
Control Operator	OPS TECH CONTROL OP/ MECH MNTC	7	14%
Control Operator	OPS TECH CONTROL OP/PLATE WELD	0	0%
Electrician- Journeyman	Electrician	11	10%
Lineman-Journeyman	Lineman Hotstick	0	0%
Lineman-Journeyman	Lineman Journeyman	13	7%
Technician-E&I	E&I TECH ELECT / ADV INSTR	0	0%
Technician-E&I	E&I TECH INSTR REPR/ADV ELECT	2	12%
Technician-E&I	E&I Technician	9	17%

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.11: With respect to each of the job classifications discussed in the preceding data request, please state or estimate the average length of time needed for an *inexperienced, newly hired* employee in each classification to become fully qualified in such classification by way of training, experience, or otherwise.

Response: For Lineman-Journeyman and Lineman-Electrician, the term of apprenticeship for each of the positions corresponds to that customarily set by the trade, or a minimum of 8,000 hours based on a 40-hour week and/or successful completion of all Performance Based Competencies as determined by the Joint Apprenticeship Committee comprised of membership from both APS and the IBEW Local 387. The hours to be spent in related instruction shall not be less than 576 hours.

- For E&I Technician, the term of apprenticeship is 4.3 years.
- For Control Operator, the term of apprenticeship is 4 years.
- For Auxiliary Operator, the term of apprenticeship is up to 3 years.

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.12: Please state or estimate the cost to APS, on a per employee basis, of training an inexperienced, newly hired employee in each classification to replace fully qualified personnel in such classification with respect to each of the job classifications discussed in the preceding data request.

- Response:
- For Lineman-Journeyman and Lineman-Electrician, the estimated average cost is approximately \$250,000 per employee, including wages, and training costs (materials and instructor costs).
  - For E&I Technician, the estimated average cost is approximately \$213,000 per employee, including wages, and training costs (materials and instructor costs).
  - For Control Operator, the estimated average cost is approximately \$211,000 per employee, including wages, and training costs (materials and instructor costs).
  - For Auxiliary Operator, the estimated average cost is approximately \$154,000 per employee, including wages, and training costs (materials and instructor costs).

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.13: Please describe in detail the nature, design, and efficacy of APS' s current efforts to recruit and train employees in each of the classifications referenced in the preceding data request with a view to meeting challenges associated with APS's "aging workforce."<sup>1</sup>

Response: APS recently established a Workforce Planning function to strategically address future retirement and attrition forecasts to use that information for the hiring and talent pipeline planning process to meet the challenges associated with, among other things, employee retirement.

APS has been successful in utilizing internal talent. The Company develops apprentices through its Apprenticeship program. The Company currently has 27 Lineman Apprentices and 9 Electrician Apprentices.

APS also has a partnership with Chandler-Gilbert Community College and Powerlineman.com to assist in filling our talent pipeline. Gilbert College provides coursework for future apprentices to become eligible in our apprenticeship program. We have also recruited Journeyman through Powerlineman.com which assists us in getting national and regional talent.

---

<sup>1</sup> See, e.g., Testimony of Daniel T. Froetscher, pp. 19-20; Testimony of Mark A Schiavoni, p. 26.

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.14: Has APS offered any incentives for employees to take early retirement from the beginning of the Test Year through the present date?

Response: Yes.

IBEW LOCALS 387, 640 and 769 FIRST SET OF DATA REQUESTS  
REGARDING THE APPLICATION TO APPROVE RATE SCHEDULES  
DESIGNED TO DEVELOP A JUST AND REASONABLE RATE OF RETURN  
DOCKET NO. E-01345A-11-0224  
OCTOBER 26, 2011

IBEW 1.15: If the answer to the preceding data request is in the affirmative, please state:

- A. The number of employees who received an offer;
- B. The criteria established to qualify for an offer;
- C. A generalized description of the offers; and
- D. The reason(s) for the offer.

Response:

- A. 1,251.
- B. APS identified certain positions that were to be eliminated or consolidated, and employees in those positions were eligible for the offer.
- C. Employees represented by IBEW are offered severance pursuant to the Pinnacle West Capital Corporation Severance Program which includes 8 weeks of base pay plus one week of base pay for each year of service. Severance pay is capped at 52 weeks. The Severance Program also provides for continuation of medical benefits through the severance period and outplacement assistance.
- D. See response to question 1.15(B).