ORIGINAL

0000094420

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

2009 MAR 11 A 8: 59

AZ CORP COMMISSION
DOCKET CONTROL

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF TRICO ELECTRIC COOPERATIVE, INC., AN ARIZONA NONPROFIT CORPORATION, FOR A PERMANENT RATE INCREASE, FOR A DETERMINATION OF THE FAIR VALUE OF THE CORPORATION'S ELECTRIC SYSTEM FOR RATEMAKING PURPOSES, FOR A FINDING OF A JUST AND REASONABLE RATE OF RETURN THEREON, AND FOR APPROVAL OF RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN.	DOCKET NO. E-01461A-08-0430 **STAFF'S NOTICE OF FILING RATE DESIGN AND COST OF SERVICE DIRECT TESTIMONY**

Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct Testimony on Rate Design and Cost of Service by Prem K. Bahl of the Utilities Division in the above-referenced matter.

RESPECTFULLY SUBMITTED this 11th day of March, 2009.

Kevin O. Torrey, Attorney
Nancy L. Scott, Attorney
Arizona Corporation Commission
1200 W. Washington St.
Phoenix, AZ 85007
(602) 542-3402

Arizona Corporation Commission
DOCKETED
MAR 11 2009
DOCKETED BY

...

...

...

...

Original and thirteen (13) copies
of the foregoing were filed this
11th day of March, 2009 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85008

Copy of the foregoing mailed this
11th day of March, 2009 to:

Russell E. Jones, Esq.
D. Michael Mandig, Esq.
Waterfall Economidis Caldwell
Hanshaw & Villamana, P.C.
5210 East Williams Circle, Suite 800
Tucson, Arizona 85711-4482
Attorneys for Trico Electric Cooperative, Inc.

C. Webb Crockett
Patrick J. Black
Fennemore Craig, PC
3003 North Central Avenue, Suite 2600
Phoenix, Arizona 85012-2913
Attorneys fro Freeport-McMoRan

Nicolas J. Enoch
Lubin & Enoch, PC
349 North Fourth Avenue
Phoenix, Arizona 85003
Attorneys for IBEW Local 1116

Ashley Hodge

DIRECT

TESTIMONY

OF

PREM K. BAHL

DOCKET NO. E-01461A-08-0430

**IN THE MATTER OF THE APPLICATION OF
TRICO ELECTRIC COOPERATIVE, INC.
FOR A HEARING TO DETERMINE THE FAIR VALUE
OF ITS PROPERTY FOR RATEMAKING PURPOSES,
TO FIX A JUST AND REASONABLE RETURN THEREON,
TO APPROVE RATES DESIGNED TO DEVELOP SUCH RETURN
AND FOR RELATED APPROVALS**

MARCH 11, 2009

BEFORE THE ARIZONA CORPORATION COMMISSION

KRISTIN K. MAYES
Chairman
GARY PIERCE
Commissioner
PAUL NEWMAN
Commissioner
SANDRA D. KENNEDY
Commissioner
BOB STUMP
Commissioner

IN THE MATTER OF THE APPLICATION OF TRICO ELECTRIC COOPERATIVE, INC. FOR A HEARING TO DETERMINE THE FAIR VALUE OF ITS PROPERTY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RETURN THEREON, TO APPROVE RATES DESIGNED TO DEVELOP SUCH RETURN AND FOR RELATED APPROVALS	)	DOCKET NO. E-01461A-08-0430

DIRECT

TESTIMONY

OF

PREM K. BAHL

ELECTRIC UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

MARCH 11, 2009

TABLE OF CONTENTS

Page

INTRODUCTION 1

PURPOSE OF TESTIMONY 3

COST OF SERVICE STUDY 4

CONCLUSIONS AND RECOMMENDATIONS 7

EXHIBIT

Trico's Cost of Service Study Schedules ..... EXHIBIT 1

Cost Allocation Summary
Staff Adjusted Rates (Schedule PB-G 1.0)
Summary of Components of Expenses (Schedule PB-G 4.0)

EXECUTIVE SUMMARY
TRIICO ELECTRIC COOPERATIVE, INC.
DOCKET NO. E-01461A-08-0430

Prem Bahl's testimony makes recommendations regarding the Arizona Corporation Commission ("Commission" or "ACC") Utilities Division Staff's ("Staff") position in the case of Trico Electric Cooperative, Inc.'s ("Trico" or "Cooperative") application for a general rate increase. Staff reviewed Trico's Cost of Service Study ("COSS") and Staff has the following conclusions and recommendations:

CONCLUSIONS

Based on Staff's evaluation and analysis of Trico's Cost of Service study results, Staff concludes that:

1. Trico has used its COSS model for the bundled rate filing appropriately. The model used by Trico is consistent with what the Commission approved for use in Trico's previous rate case (Docket No. E-01461A-04-0607; Decision No. 68073);

2. the results of the application of COSS model are reasonable.

RECOMMENDATIONS

Based on the aforementioned conclusions, Staff recommends that the Commission accept Trico's Cost of Service Study for use in this case.

INTRODUCTION

Q. Please state your name and business address.

A. My name is Prem K. Bahl. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. By whom and in what capacity are you employed?

A. I am employed by the Arizona Corporation Commission ("Commission") as an Electric Utilities Engineer.

Q. Please describe your educational background.

A. I graduated from the South Dakota State University with a Masters degree in Electrical Engineering in May 1972. I received my Professional Engineering ("P.E.") License in the state of Arizona in 1978. My Bachelor of Science degree in Electrical Engineering was from the Agra University, India in 1957.

Q. Please describe your pertinent work experience.

A. I worked at the Arizona Corporation Commission from 1988 to 1998 as a Utilities Consultant, and have subsequently worked at the Commission as an Electric Utilities Engineer since June 2002. During this time period of over sixteen years, I conducted engineering evaluations of electric utility rate cases and financing cases, such as Arizona Public Service Company, Tucson Electric Company, Southwest Gas Company, Trico Electric Cooperative, Duncan Valley Electric Cooperative; Sulphur Springs Valley Electric Cooperative, Graham County Electric Cooperative, and Graham County Utilities, Inc., Gas Division. I inspected utility power plants including the Palo Verde Nuclear Generating Station. I was involved with the development of retail competition in Arizona and of DesertStar, an Independent System Operator ("ISO") for the desert southwest

region. I was Chairman of the System Reliability Working Group, which evaluated the impact of competition on system reliability and recommended the establishment of the Arizona Independent System Administrator ("AISA") as an interim organization until commercial operation of DesertStar, which later evolved as WestConnect, a Regional Transmission Operator ("RTO"). Since rejoining the Commission, I have reviewed the utilities' load curtailment plans; coordinated with the Commission Consultants to hold six workshops to report on the second thru the fifth Biennial Transmission Assessments for Arizona. I have also worked on compliance of Certificates of Environmental Compatibility including Harquahala, Panda Gila River, Red Hawk, Northern Arizona Project, and Coolidge power plants. In 2004, I testified in the line siting cases of Tucson Electric Power Company's ("TEP") 138 kV Robert Bills-Wilmont Substation and Trico Electric Cooperative's 115 kV Sandario Project. In 2007 and 2008, I testified in the Palo Verde to North Gila 500 kV project, 138 kV Vail to Cienega project and the Coolidge Station project.

From July 2001 to June 2002, I had my own consulting engineering firm, named P. K. Bahl & Associates. During that time, I was involved with deregulation of the electric power industry and the formation of RTOs, addressing the planning, congestion management, business practices and market monitoring activities of the then Northwest RTO and the MidWest ISO.

From July 1998 to August 2000, I worked as Chief Engineer at the Residential Utility Consumer Office. During that time period, I performed many of the duties I performed at the Commission. I was also involved with the Distributed Generation Work Group that looked at the impact of development of distributed generation in Arizona on system reliability, and modifications of interconnection standards currently specified by the

jurisdictional utilities. I was a member of the AISA Board of Directors from September 1999 until June 2000. I was involved in the deliberations of the Market Interface Committee of the North American Electric Reliability Council ("NERC"). I also published and presented a number of technical papers at national and international conferences regarding transmission issues and distributed generation during the last thirty years.

Prior to my employment with the Commission, I had worked as an electrical engineer with electric utilities and consulting firms in the transmission and generation planning areas for approximately thirty two years, including ten years' experience at the Punjab State Electricity Board ("PSEB") in India from 1960 to 1970. I worked as Executive Engineer at the PSEB from 1968 to 1970 prior to coming to the United States in 1970.

Q. As part of your assigned duties at the Commission, did you perform an analysis of the application that is the subject of this proceeding?

A. Yes, I did.

Q. Is your testimony herein based on that analysis?

A. Yes, it is.

PURPOSE OF TESTIMONY

Q. What is the purpose of your prefiled testimony?

A. The purpose of my testimony is to discuss Staff's engineering evaluation of Trico Electric Cooperative, Inc.'s ("Trico" or "Cooperative") Cost of Service Study ("COSS") for the bundled rate case, and present the results of this review.

Utility Overview

Trico, a Touchstone Energy® Cooperative, is a member-owned, not-for-profit electric cooperative headquartered in Marana, Arizona, northwest of Tucson. Established in 1945, Trico serves more than 37,000 customers over nearly 3,200 miles of line. Trico serves a diverse membership, including urban, suburban and rural communities in northwest Tucson, Green Valley, Marana, Sahuarita, Corona de Tucson and Arivaca.

AEPCO's power is delivered to Trico through the transmission system of Southwest Transmission Cooperative, Inc. ("SWTC") and is measured at SWTC's wholesale delivery points. The Cooperative's service territory is located within Western Area Power Administration's ("WAPA") Control Area[1].

COST OF SERVICE STUDY

Q. What is the purpose of preparing a Cost of Service Study ("COSS")?

A. There are three steps to take in performing a COSS. 1) functionalization; 2) classification, and 3) allocation. First, the COSS enables us to determine the system's cost of service by classifying the utility's costs (investments and expenses) by function, such as customer-related, demand-related, and energy-related functions. Second, the study breaks down costs by customer classes to reflect, as closely as possible, the cost causation by respective customer classes. Third, the result of the COSS provides a benchmark for the revenues needed from each customer category by allocating the revenue requirement for each customer class.

[1] A Control Area monitors actual and scheduled transmission transactions to assure load and generation are balanced within its system and power flows are within the ratings of the transmission facilities.

Q. Is there a standard COSS model?

A. There is no standard methodology for designing a COSS, but it is generally advisable to follow a range of alternatives to identify which allocations are more reasonable than others. For that reason, the COSS should be used as a general guide only and is only one of many considerations in designing rates.

Q. What process was used by Staff in reviewing the Trico's COSS?

A. First, I reviewed the model used by the Cooperative in developing various allocation factors in the bundled COSS. Second, I reviewed the Test Year ("TY 2007") rate base, revenues and expenses in the bundled rate case, adjusted by the Cooperative by its Pro Forma adjustments, and matched them with the appropriate schedules contained in the application. Third, I incorporated the changes in the COSS that Staff witness, Crystal Brown, had made in the revenue requirement.

Q. What model was used by Trico in developing its COSS and is Staff satisfied with the input data utilized in this model?

A. For conducting the COSS, Trico engaged the services of C. H. Guernsey & Company ("Consultants"), out of Oklahoma City, Oklahoma. The Consultants used their in-house model, named CoOPTIONS. The same model was used by the Consultants and was approved by the Commission in the last rate case filed by Trico (Docket No. E-01461A-04-0607, Decision No. 68073).

Q. What did Staff determine from its review of the Cost of Service Study?

A. Trico's COSS used appropriate methods to functionalize, classify and allocate costs. The weighting factors Trico used were reasonable. Trico appropriately used the "Sum of 12

Non-coincident Peaks ("NCP")[2]" to allocate demand charges to each of the customer classes. A 12-month demand allocation factor was developed using the monthly purchased demand values during the test year, as the system monthly total. The allocation of monthly demand responsibility was made to all of the classes with metered demand by applying the appropriate losses, Load Factors[3] and Coincidence Factors[4] to metered demand values for that class. After the allocation of Coincident Peak ("CP")[5], demand responsibility was made to the classes with metered demand, the remainder of the CP demand was assigned to the non-demand metered classes (such as Residential, General Service (1), and Time of Day Water Pumping) based on their respective kWh sales.

The COSS model appropriately calculated the components of the bundled case. Attached herewith as Exhibit 1 is the Cost of Service Study Schedules, showing Cost Allocation Summary - Staff Adjusted Rates (Schedule PB-G 1.0), and Summary of Components of Expenses (Schedule PB-G 4.0).

Q. Did the methods used by Trico comply with industry standards?

A. Trico used procedures and methodology that are generally accepted standards throughout the utility industry for its cost of service study. Allocation of invested capital and operating expenses were allocated to the respective customer classes on the basis of demand, energy and other customer related factors.

---

[2] **Non-coincident Peak** is the maximum demand experienced by Trico in a specified period of time, such as a month or a year, which occurs at a time other than the time when AEPCO experiences its peak.
[3] **Load Factor** is calculated as the ratio of energy to demand for a set time frame. The load factor based on maximum demand will always be between 0 and 1.
[4] **Coincidence Factor** is the ratio of coincident demand to maximum demand. This will always be between 0 and 1 because coincident demand should always be less than or equal to maximum demand.
[5] **Coincident Peak** means the maximum system demand which occurs at the same time that AEPCO peak occurs every month. Trico is charged by AEPCO based on its peak coincident with AEPCO's peak.

CONCLUSIONS AND RECOMMENDATIONS

Q. Based upon your testimony, what are Staff's conclusions and recommendations regarding its evaluation of Trico's COSS?

A. Staff's conclusions and recommendations are as follows:

CONCLUSIONS

Based on Staff's evaluation and analysis of Trico's Cost of Service study results, Staff concludes that:

1. Trico has used its COSS model for the bundled rate filing appropriately. The model used by Trico is consistent with what the Commission approved for use in Trico's previous rate case (Docket No. E-01461A-04-0607; Decision No. 68073);

2. the results of the application of COSS model are reasonable.

RECOMMENDATIONS

Based on the aforementioned conclusions, Staff recommends that the Commission accept Trico's Cost of Service Study for use in this case.

Q. Does this conclude your direct testimony?

A. Yes, it does.

EXHIBIT 1

TRICO'S COST OF SERVICE STUDY SCHEDULES

- Cost Allocation Summary – Staff Adjusted Rates (Schedule G 1.0)
- Cost Allocation Summary – Components of Expenses (Schedule G 4.0)

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Cost Allocation Summary

Account	Total	Residential	Res TOU	Gen Serv 1	Gen Serv 2	GEN SERV 3	Lights
Rate Base	140,628,112	107,248,104	10,974,279	3,830,905	2,221,111	11,996,349	531,785
Operating Revenues	75,477,778	47,887,692	3,960,250	1,408,576	1,536,466	14,068,248	121,507
Operating Expenses	68,173,196	44,568,931	4,911,059	1,274,628	1,365,326	11,065,988	288,617
Return	7,304,582	3,318,761	-950,808	133,948	171,140	3,002,259	-167,109
Rate of Return	5.194 %	3.094 %	-8.664 %	3.497 %	7.705%	25.026 %	-31.424 %
Relative ROR	1.000	0.596	-1.668	0.673	1.483	4.818	-6.050
Interest	7,195,345	5,526,346	562,042	196,055	108,982	586,285	28,202
Operating Margins	109,237	-2,207,585	-1,512,851	-62,107	62,158	2,415,974	-195,312
Margin as % Revenue	0.145 %	-4.610 %	-38.201 %	-4.409 %	4.046%	17.173 %	-160.741 %
Operating TIER	1.015	0.601	-1.692	0.683	1.570	5.121	-5.925
Revenue Deficiencies							
Uniform ROR = 7.610626	3,398,098	4,843,491	1,786,020	157,607	-2,099	-2,089,262	207,581
Deficiency % Rev	4.502 %	10.114 %	45.099 %	11.189 %	-0.137%	-14.851 %	170.839 %
Uniform % Mar = 4.446652	3,398,098	4,538,809	1,767,546	130,546	6,450	-1,873,726	210,055
Deficiency % Rev	4.502 %	9.478 %	44.632 %	9.268 %	0.420%	-13.319 %	172.875 %

CoOPTIONS: ® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Cost Allocation Summary

Account	Total	Water Pump	Irrigation	TOD Pump	Inter Comm	Inter Pump	Gen Serv 4	Wheeling
Rate Base	140,628,112	795,371	175,211	226,598	297,445	1,442,089	479,963	408,898
Operating Revenues	75,477,778	504,980	71,395	151,509	337,401	3,597,020	1,713,725	119,003
Operating Expenses	68,173,196	476,426	95,563	152,034	235,506	2,046,917	1,638,190	54,006
Return	7,304,582	28,554	-24,167	-524	101,895	1,550,102	75,534	64,997
Rate of Return	5.194 %	3.590 %	-13.794 %	-0.232 %	34.257 %	107.490 %	15.738 %	15.896 %
Relative ROR	1.000	0.691	-2.656	-0.045	6.595	20.694	3.030	3.060
Interest	7,195,345	39,183	8,648	11,222	14,540	70,682	23,341	19,811
Operating Margins	109,237	-10,629	-32,816	-11,747	87,354	1,479,420	52,192	45,185
Margin as % Revenue	0.145 %	-2.105 %	-45.964 %	-7.753 %	25.890 %	41.129 %	3.046 %	37.970 %
Operating TIER	1.015	0.729	-2.795	-0.047	7.007	21.930	3.236	3.281
Revenue Deficiencies								
Uniform ROR = 7.610626	3,398,098	31,978	37,502	17,770	-79,257	-1,440,350	-39,006	-33,877
Deficiency % Rev	4.502 %	6.333 %	52.528 %	11.729 %	-23.491 %	-40.043 %	-2.276 %	-28.468 %
Uniform % Mar = 4.446652	3,398,098	34,623	37,665	19,344	-75,718	-1,380,876	25,127	-41,750
Deficiency % Rev	4.502 %	6.856 %	52.757 %	12.768 %	-22.442 %	-38.389 %	1.466 %	-35.084 %

CoOPTIONS:® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Residential	Res TOU	Gen Serv 1	Gen Serv 2	GEN SERV 3	Lights
Average Consumers	37,373	32,783	2,883	1,051	156	363	920
kWh Sold	605,300,210	360,612,230	39,250,333	9,189,901	9,629,157	111,143,310	550,757
kW One		0	0	0	693	299,367	0
kW Two		0	0	0	42,551	0	0
PP Dem Gen	**20,511,628**	**12,990,011**	**1,495,775**	**331,633**	**565,603**	**4,048,896**	**13,205**
Monthly Cost per Cons	45.74	33.02	43.24	26.30	302.14	929.50	1.20
Average Cost per kWh	0.033887	0.036022	0.038109	0.036087	0.058739	0.036430	0.023976
Cost per kW One		0.00	0.00	0.00	816.17	13.52	0.00
Cost per kW Two		0.00	0.00	0.00	13.29	0.00	0.00
PP Dem Del	**5,510,763**	**3,477,840**	**400,467**	**88,789**	**151,430**	**1,084,019**	**3,535**
Monthly Cost per Cons	12.29	8.84	11.58	7.04	80.89	248.86	0.32
Average Cost per kWh	0.009104	0.009644	0.010203	0.009662	0.015726	0.009753	0.006419
Cost per kW One		0.00	0.00	0.00	218.51	3.62	0.00
Cost per kW Two		0.00	0.00	0.00	3.56	0.00	0.00
PP Gen Energy	**21,809,416**	**13,047,553**	**1,420,143**	**332,506**	**348,399**	**4,013,575**	**19,927**
Monthly Cost per Cons	48.63	33.17	41.05	26.36	186.11	921.39	1.81
Average Cost per kWh	0.036031	0.036182	0.036182	0.036182	0.036182	0.036112	0.036182
Cost per kW One		0.00	0.00	0.00	502.74	13.41	0.00
Cost per kW Two		0.00	0.00	0.00	8.19	0.00	0.00
PP Energy Del	**836,296**	**500,173**	**54,441**	**12,746**	**13,356**	**153,859**	**764**
Monthly Cost per Cons	1.86	1.27	1.57	1.01	7.13	35.32	0.07
Average Cost per kWh	0.001382	0.001387	0.001387	0.001387	0.001387	0.001384	0.001387
Cost per kW One		0.00	0.00	0.00	19.27	0.51	0.00
Cost per kW Two		0.00	0.00	0.00	0.31	0.00	0.00
Transmission	**261,714**	**161,742**	**17,546**	**4,130**	**7,163**	**51,230**	**168**
Monthly Cost per Cons	0.58	0.41	0.51	0.33	3.83	11.76	0.02
Average Cost per kWh	0.000432	0.000449	0.000447	0.000449	0.000744	0.000461	0.000305
Cost per kW One		0.00	0.00	0.00	10.34	0.17	0.00
Cost per kW Two		0.00	0.00	0.00	0.17	0.00	0.00

CoOPTIONS: ® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Residential	Res TOU	Gen Serv 1	Gen Serv 2	GEN SERV 3	Lights
Average Consumers	37,373	32,783	2,883	1,051	156	363	920
kWh Sold	605,300,210	360,612,230	39,250,333	9,189,901	9,629,157	111,143,310	550,757
kW One		0	0	0	693	299,367	0
kW Two		0	0	0	42,551	0	0
Dist Subs	**2,301,766**	**1,444,811**	**156,733**	**36,894**	**63,987**	**457,624**	**1,499**
Monthly Cost per Cons	5.13	3.67	4.53	2.93	34.18	105.06	0.14
Average Cost per kWh	0.003803	0.004007	0.003993	0.004015	0.006645	0.004117	0.002721
Cost per kW One		0.00	0.00	0.00	92.33	1.53	0.00
Cost per kW Two		0.00	0.00	0.00	1.50	0.00	0.00
Dist Backbone	**4,326,900**	**2,729,217**	**296,065**	**69,691**	**120,871**	**864,442**	**2,831**
Monthly Cost per Cons	9.65	6.94	8.56	5.53	64.57	198.45	0.26
Average Cost per kWh	0.007148	0.007568	0.007543	0.007583	0.012553	0.007778	0.005141
Cost per kW One		0.00	0.00	0.00	174.42	2.89	0.00
Cost per kW Two		0.00	0.00	0.00	2.84	0.00	0.00
Dist Demand	**4,697,129**	**3,899,489**	**342,929**	**160,804**	**54,958**	**173,548**	**0**
Monthly Cost per Cons	10.47	9.91	9.91	12.75	29.36	39.84	0.00
Average Cost per kWh	0.007760	0.010814	0.008737	0.017498	0.005707	0.001561	0.000000
Cost per kW One		0.00	0.00	0.00	79.30	0.58	0.00
Cost per kW Two		0.00	0.00	0.00	1.29	0.00	0.00
Dist Customer	**8,019,065**	**6,451,305**	**567,340**	**260,508**	**88,166**	**273,435**	**273,688**
Monthly Cost per Cons	17.88	16.40	16.40	20.66	47.10	62.77	24.79
Average Cost per kWh	0.013248	0.017890	0.014454	0.028347	0.009156	0.002460	0.496931
Cost per kW One		0.00	0.00	0.00	127.22	0.91	0.00
Cost per kW Two		0.00	0.00	0.00	2.07	0.00	0.00
Metering	**2,394,692**	**1,769,693**	**405,513**	**58,107**	**30,256**	**82,391**	**0**
Monthly Cost per Cons	5.34	4.50	11.72	4.61	16.16	18.91	0.00
Average Cost per kWh	0.003956	0.004907	0.010331	0.006323	0.003142	0.000741	0.000000
Cost per kW One		0.00	0.00	0.00	43.66	0.28	0.00
Cost per kW Two		0.00	0.00	0.00	0.71	0.00	0.00

CoOPTIONS:® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Residential	Res TOU	Gen Serv 1	Gen Serv 2	GEN SERV 3	Lights
Average Consumers	37,373	32,783	2,883	1,051	156	363	920
kWh Sold	605,300,210	360,612,230	39,250,333	9,189,901	9,629,157	111,143,310	550,757
kW One		0	0	0	693	299,367	0
kW Two		0	0	0	42,551	0	0
Meter Reading	**697,480**	**611,605**	**53,786**	**19,608**	**2,910**	**6,772**	**0**
Monthly Cost per Cons	1.56	1.55	1.55	1.55	1.55	1.55	0.00
Average Cost per kWh	0.001152	0.001696	0.001370	0.002134	0.000302	0.000061	0.000000
Cost per kW One		0.00	0.00	0.00	4.20	0.02	0.00
Cost per kW Two		0.00	0.00	0.00	0.07	0.00	0.00
Cust Records	**2,709,168**	**2,329,870**	**204,893**	**74,694**	**11,087**	**25,798**	**0**
Monthly Cost per Cons	6.04	5.92	5.92	5.92	5.92	5.92	0.00
Average Cost per kWh	0.004476	0.006461	0.005220	0.008128	0.001151	0.000232	0.000000
Cost per kW One		0.00	0.00	0.00	16.00	0.09	0.00
Cost per kW Two		0.00	0.00	0.00	0.26	0.00	0.00
Cust Service	**548,254**	**209,894**	**18,459**	**6,729**	**999**	**277,820**	**0**
Monthly Cost per Cons	1.22	0.53	0.53	0.53	0.53	63.78	0.00
Average Cost per kWh	0.000906	0.000582	0.000470	0.000732	0.000104	0.002500	0.000000
Cost per kW One		0.00	0.00	0.00	1.44	0.93	0.00
Cost per kW Two		0.00	0.00	0.00	0.02	0.00	0.00
Revenue	**744,271**	**472,075**	**39,013**	**13,845**	**15,123**	**138,865**	**1,202**
Monthly Cost per Cons	1.66	1.20	1.13	1.10	8.08	31.88	0.11
Average Cost per kWh	0.001230	0.001309	0.000994	0.001507	0.001571	0.001249	0.002182
Cost per kW One		0.00	0.00	0.00	21.82	0.46	0.00
Cost per kW Two		0.00	0.00	0.00	0.36	0.00	0.00
Total Expenses	75,368,541	50,095,277	5,473,101	1,470,683	1,474,308	11,652,274	316,819
Monthly Cost per Cons	168.05	127.34	158.20	116.61	787.56	2,674.99	28.70
Average Cost per kWh	0.124514	0.138917	0.139441	0.160033	0.153109	0.104840	0.575244
Cost per kW One		0.00	0.00	0.00	2,127.43	38.92	0.00
Cost per kW Two		0.00	0.00	0.00	34.65	0.00	0.00

CoOPTIONS:® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Residential	Res TOU	Gen Serv 1	Gen Serv 2	GEN SERV 3	Lights
Average Consumers	37,373	32,783	2,883	1,051	156	363	920
kWh Sold	605,300,210	360,612,230	39,250,333	9,189,901	9,629,157	111,143,310	550,757
kW One		0	0	0	693	299,367	0
kW Two		0	0	0	42,551	0	0
PP Demand	**26,022,391**	**16,467,851**	**1,896,242**	**420,422**	**717,033**	**5,132,915**	**16,740**
Monthly Cost per Cons	58.02	41.86	54.81	33.34	383.03	1,178.36	1.52
Average Cost per kWh	0.042991	0.045666	0.048311	0.045748	0.074465	0.046183	0.030395
Cost per kW One		0.00	0.00	0.00	1,034.68	17.15	0.00
Cost per kW Two		0.00	0.00	0.00	16.85	0.00	0.00
PP Energy	**22,645,712**	**13,547,726**	**1,474,583**	**345,252**	**361,755**	**4,167,434**	**20,691**
Monthly Cost per Cons	50.49	34.44	42.62	27.37	193.25	956.71	1.87
Average Cost per kWh	0.037412	0.037569	0.037569	0.037569	0.037569	0.037496	0.037569
Cost per kW One		0.00	0.00	0.00	522.01	13.92	0.00
Cost per kW Two		0.00	0.00	0.00	8.50	0.00	0.00
Dist Wires Demand	**11,587,510**	**8,235,258**	**813,272**	**271,519**	**246,979**	**1,546,844**	**4,498**
Monthly Cost per Cons	25.84	20.93	23.51	21.53	131.93	355.11	0.41
Average Cost per kWh	0.019143	0.022837	0.020720	0.029545	0.025649	0.013918	0.008167
Cost per kW One		0.00	0.00	0.00	356.39	5.17	0.00
Cost per kW Two		0.00	0.00	0.00	5.80	0.00	0.00
Dist Wires Customer	**15,112,928**	**11,844,443**	**1,289,004**	**433,490**	**148,541**	**805,082**	**274,890**
Monthly Cost per Cons	33.70	30.11	37.26	34.37	79.35	184.82	24.90
Average Cost per kWh	0.024968	0.032845	0.032841	0.047170	0.015426	0.007244	0.499113
Cost per kW One		0.00	0.00	0.00	214.35	2.69	0.00
Cost per kW Two		0.00	0.00	0.00	3.49	0.00	0.00
Total Expenses	75,368,541	50,095,277	5,473,101	1,470,683	1,474,308	11,652,274	316,819
Monthly Cost per Cons	168.05	127.34	158.20	116.61	787.56	2,674.99	28.70
Average Cost per kWh	0.124514	0.138917	0.139441	0.160033	0.153109	0.104840	0.575244
Cost per kW One		0.00	0.00	0.00	2,127.43	38.92	0.00
Cost per kW Two		0.00	0.00	0.00	34.65	0.00	0.00

CoOPTIONS:® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Water Pump	Irrigation	TOD Pump	Inter Comm	Inter Pump	Gen Serv 4	Wheeling
Average Consumers	37,373	64	12	15	7	37	2	13
kWh Sold	605,300,210	3,766,873	538,241	1,690,861	3,726,623	39,876,215	25,325,709	0
kW One		0	0	2,725	693	6,350	42,045	0
kW Two		0	0	12,883	14,838	79,527	22,571	0
PP Dem Gen	**20,511,628**	**179,700**	**38,936**	**40,155**	**39,291**	**235,389**	**533,033**	**0**
Monthly Cost per Cons	45.74	233.98	270.39	223.08	467.75	530.16	22,209.71	0.00
Average Cost per kWh	0.033887	0.047705	0.072339	0.023748	0.010543	0.005903	0.021047	0.000000
Cost per kW One		0.00	0.00	14.74	56.70	37.07	12.68	0.00
Cost per kW Two		0.00	0.00	3.12	2.65	2.96	23.62	0.00
PP Dem Del	**5,510,763**	**48,112**	**10,424**	**10,751**	**10,519**	**63,021**	**161,857**	**0**
Monthly Cost per Cons	12.29	62.65	72.39	59.73	125.23	141.94	6,744.04	0.00
Average Cost per kWh	0.009104	0.012772	0.019367	0.006358	0.002823	0.001580	0.006391	0.000000
Cost per kW One		0.00	0.00	3.95	15.18	9.92	3.85	0.00
Cost per kW Two		0.00	0.00	0.83	0.71	0.79	7.17	0.00
PP Gen Energy	**21,809,416**	**136,292**	**19,474**	**61,178**	**134,835**	**1,442,788**	**832,745**	**0**
Monthly Cost per Cons	48.63	177.46	135.24	339.88	1,605.18	3,249.52	34,697.71	0.00
Average Cost per kWh	0.036031	0.036182	0.036182	0.036182	0.036182	0.036182	0.032881	0.000000
Cost per kW One		0.00	0.00	22.45	194.57	227.21	19.81	0.00
Cost per kW Two		0.00	0.00	4.75	9.09	18.14	36.89	0.00
PP Energy Del	**836,296**	**5,225**	**747**	**2,345**	**5,169**	**55,309**	**32,163**	**0**
Monthly Cost per Cons	1.86	6.80	5.18	13.03	61.53	124.57	1,340.13	0.00
Average Cost per kWh	0.001382	0.001387	0.001387	0.001387	0.001387	0.001387	0.001270	0.000000
Cost per kW One		0.00	0.00	0.86	7.46	8.71	0.76	0.00
Cost per kW Two		0.00	0.00	0.18	0.35	0.70	1.42	0.00
Transmission	**261,714**	**2,277**	**493**	**516**	**1,189**	**6,375**	**7,149**	**1,736**
Monthly Cost per Cons	0.58	2.96	3.43	2.87	14.16	14.36	297.88	11.13
Average Cost per kWh	0.000432	0.000604	0.000917	0.000305	0.000319	0.000160	0.000282	0.000000
Cost per kW One		0.00	0.00	0.19	1.72	1.00	0.17	0.00
Cost per kW Two		0.00	0.00	0.04	0.08	0.08	0.32	0.00

CoOPTIONS:® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Water Pump	Irrigation	TOD Pump	Inter Comm	Inter Pump	Gen Serv 4	Wheeling
Average Consumers	37,373	64	12	15	7	37	2	13
kWh Sold	605,300,210	3,766,873	538,241	1,690,861	3,726,623	39,876,215	25,325,709	0
kW One		0	0	2,725	693	6,350	42,045	0
kW Two		0	0	12,883	14,838	79,527	22,571	0
Dist Subs	**2,301,766**	**20,339**	**4,407**	**4,613**	**10,624**	**56,944**	**27,781**	**15,512**
Monthly Cost per Cons	5.13	26.48	30.60	25.63	126.47	128.25	1,157.53	99.43
Average Cost per kWh	0.003803	0.005399	0.008188	0.002728	0.002851	0.001428	0.001097	0.000000
Cost per kW One		0.00	0.00	1.69	15.33	8.97	0.66	0.00
Cost per kW Two		0.00	0.00	0.36	0.72	0.72	1.23	0.00
Dist Backbone	**4,326,900**	**38,420**	**8,325**	**8,714**	**20,068**	**107,566**	**31,391**	**29,301**
Monthly Cost per Cons	9.65	50.03	57.81	48.41	238.90	242.27	1,307.95	187.83
Average Cost per kWh	0.007148	0.010199	0.015467	0.005153	0.005385	0.002697	0.001239	0.000000
Cost per kW One		0.00	0.00	3.20	28.96	16.94	0.75	0.00
Cost per kW Two		0.00	0.00	0.68	1.35	1.35	1.39	0.00
Dist Demand	**4,697,129**	**22,733**	**4,966**	**7,010**	**4,800**	**18,330**	**2,563**	**4,999**
Monthly Cost per Cons	10.47	29.60	34.48	38.94	57.14	41.28	106.81	32.04
Average Cost per kWh	0.007760	0.006035	0.009226	0.004146	0.001288	0.000460	0.000101	0.000000
Cost per kW One		0.00	0.00	2.57	6.93	2.89	0.06	0.00
Cost per kW Two		0.00	0.00	0.54	0.32	0.23	0.11	0.00
Dist Customer	**8,019,065**	**36,451**	**7,889**	**11,341**	**7,586**	**29,533**	**3,845**	**7,976**
Monthly Cost per Cons	17.88	47.46	54.79	63.00	90.31	66.52	160.21	51.13
Average Cost per kWh	0.013248	0.009677	0.014658	0.006707	0.002036	0.000741	0.000152	0.000000
Cost per kW One		0.00	0.00	4.16	10.95	4.65	0.09	0.00
Cost per kW Two		0.00	0.00	0.88	0.51	0.37	0.17	0.00
Metering	**2,394,692**	**14,948**	**3,286**	**4,108**	**2,173**	**11,488**	**9,167**	**3,560**
Monthly Cost per Cons	5.34	19.46	22.82	22.82	25.87	25.87	381.94	22.82
Average Cost per kWh	0.003956	0.003968	0.006106	0.002430	0.000583	0.000288	0.000362	0.000000
Cost per kW One		0.00	0.00	1.51	3.14	1.81	0.22	0.00
Cost per kW Two		0.00	0.00	0.32	0.15	0.14	0.41	0.00

CoOPTIONS:® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Water Pump	Irrigation	TOD Pump	Inter Comm	Inter Pump	Gen Serv 4	Wheeling
Average Consumers	37,373	64	12	15	7	37	2	13
kWh Sold	605,300,210	3,766,873	538,241	1,690,861	3,726,623	39,876,215	25,325,709	0
kW One		0	0	2,725	693	6,350	42,045	0
kW Two		0	0	12,883	14,838	79,527	22,571	0
Meter Reading	**697,480**	**1,194**	**224**	**280**	**131**	**690**	**37**	**243**
Monthly Cost per Cons	1.56	1.55	1.55	1.55	1.55	1.55	1.55	1.55
Average Cost per kWh	0.001152	0.000317	0.000416	0.000166	0.000035	0.000017	0.000001	0.000000
Cost per kW One		0.00	0.00	0.10	0.19	0.11	0.00	0.00
Cost per kW Two		0.00	0.00	0.02	0.01	0.01	0.00	0.00
Cust Records	**2,709,168**	**4,548**	**4,264**	**10,660**	**4,975**	**26,296**	**2,843**	**9,239**
Monthly Cost per Cons	6.04	5.92	29.61	59.22	59.22	59.22	118.45	59.22
Average Cost per kWh	0.004476	0.001207	0.007922	0.006305	0.001335	0.000659	0.000112	0.000000
Cost per kW One		0.00	0.00	3.91	7.18	4.14	0.07	0.00
Cost per kW Two		0.00	0.00	0.83	0.34	0.33	0.13	0.00
Cust Service	**548,254**	**410**	**77**	**96**	**5,357**	**28,318**	**13**	**83**
Monthly Cost per Cons	1.22	0.53	0.53	0.53	63.78	63.78	0.53	0.53
Average Cost per kWh	0.000906	0.000109	0.000143	0.000057	0.001438	0.000710	0.000001	0.000000
Cost per kW One		0.00	0.00	0.04	7.73	4.46	0.00	0.00
Cost per kW Two		0.00	0.00	0.01	0.36	0.36	0.00	0.00
Revenue	**744,271**	**4,962**	**698**	**1,490**	**3,330**	**35,554**	**16,946**	**1,169**
Monthly Cost per Cons	1.66	6.46	4.85	8.28	39.65	80.08	706.08	7.49
Average Cost per kWh	0.001230	0.001317	0.001298	0.000881	0.000894	0.000892	0.000669	0.000000
Cost per kW One		0.00	0.00	0.55	4.81	5.60	0.40	0.00
Cost per kW Two		0.00	0.00	0.12	0.22	0.45	0.75	0.00
Total Expenses	75,368,541	515,610	104,211	163,256	250,047	2,117,600	1,661,532	73,817
Monthly Cost per Cons	168.05	671.37	723.69	906.98	2,976.75	4,769.37	69,230.52	473.19
Average Cost per kWh	0.124514	0.136880	0.193615	0.096552	0.067098	0.053104	0.065607	0.000000
Cost per kW One		0.00	0.00	59.91	360.82	333.48	39.52	0.00
Cost per kW Two		0.00	0.00	12.67	16.85	26.63	73.61	0.00

© 1984-2007 by C. H. Guernsey & Co.

ARIZONA CORPORATION COMMISSION
TRICO'S EXISTING RATES - STAFF ADJUSTED
DOCKET NO. E-01461A-08-0430 TY END 12-31-07
Summary of Components of Expenses

Accounts	Total	Water Pump	Irrigation	TOD Pump	Inter Comm	Inter Pump	Gen Serv 4	Wheeling
Average Consumers	37,373	64	12	15	7	37	2	13
kWh Sold	605,300,210	3,766,873	538,241	1,690,861	3,726,623	39,876,215	25,325,709	0
kW One		0	0	2,725	693	6,350	42,045	0
kW Two		0	0	12,883	14,838	79,527	22,571	0
PP Demand	**26,022,391**	**227,812**	**49,360**	**50,905**	**49,810**	**298,410**	**694,890**	**0**
Monthly Cost per Cons	58.02	296.63	342.78	282.81	592.98	672.10	28,953.75	0.00
Average Cost per kWh	0.042991	0.060478	0.091707	0.030106	0.013366	0.007483	0.027438	0.000000
Cost per kW One		0.00	0.00	18.68	71.88	46.99	16.53	0.00
Cost per kW Two		0.00	0.00	3.95	3.36	3.75	30.79	0.00
PP Energy	**22,645,712**	**141,516**	**20,221**	**63,523**	**140,004**	**1,498,097**	**864,908**	**0**
Monthly Cost per Cons	50.49	184.27	140.42	352.91	1,666.72	3,374.09	36,037.83	0.00
Average Cost per kWh	0.037412	0.037569	0.037569	0.037569	0.037569	0.037569	0.034151	0.000000
Cost per kW One		0.00	0.00	23.31	202.03	235.92	20.57	0.00
Cost per kW Two		0.00	0.00	4.93	9.44	18.84	38.32	0.00
Dist Wires Demand	**11,587,510**	**83,769**	**18,191**	**20,853**	**36,680**	**189,214**	**68,884**	**51,548**
Monthly Cost per Cons	25.84	109.07	126.33	115.85	436.67	426.16	2,870.17	330.44
Average Cost per kWh	0.019143	0.022238	0.033797	0.012333	0.009843	0.004745	0.002720	0.000000
Cost per kW One		0.00	0.00	7.65	52.93	29.80	1.64	0.00
Cost per kW Two		0.00	0.00	1.62	2.47	2.38	3.05	0.00
Dist Wires Customer	**15,112,928**	**62,513**	**16,439**	**27,975**	**23,552**	**131,879**	**32,850**	**22,270**
Monthly Cost per Cons	33.70	81.40	114.16	155.42	280.39	297.02	1,368.77	142.75
Average Cost per kWh	0.024968	0.016595	0.030542	0.016545	0.006320	0.003307	0.001297	0.000000
Cost per kW One		0.00	0.00	10.27	33.99	20.77	0.78	0.00
Cost per kW Two		0.00	0.00	2.17	1.59	1.66	1.46	0.00
Total Expenses	75,368,541	515,610	104,211	163,256	250,047	2,117,600	1,661,532	73,817
Monthly Cost per Cons	168.05	671.37	723.69	906.98	2,976.75	4,769.37	69,230.52	473.19
Average Cost per kWh	0.124514	0.136880	0.193615	0.096552	0.067098	0.053104	0.065607	0.000000
Cost per kW One		0.00	0.00	59.91	360.82	333.48	39.52	0.00
Cost per kW Two		0.00	0.00	12.67	16.85	26.63	73.61	0.00

CoOPTIONS:® Cost of Service
© 1984-2007 by C. H. Guernsey & Co.