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**BEFORE THE ARIZONA CORPORATION COMMISSION**

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AZ CORP COMMISSION
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**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<br><br>**STAFF'S NOTICE OF FILING DIRECT TESTIMONY** |

Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct Testimony of Crystal S. Brown, J. Jeffrey Pasquinelli, Candrea Allen, and Ray T. Williamson of the Utilities Division in the above-referenced matter.

RESPECTFULLY SUBMITTED this 27th day of February, 2009.

Arizona Corporation Commission
DOCKETED
FEB 27 2009
DOCKETED BY

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**DIRECT**

**TESTIMONY**

**OF**

**CRYSTAL S. BROWN**
**J. JEFFREY PASQUINELLI**
**CANDREA ALLEN**
**RAY T. WILLIAMSON**

**DOCKET NO. E-01461A-08-0430**

**IN THE MATTER OF THE APPLICATION OF TRICO ELECTRIC COOPERATIVE, INC., AN ARIZONA NONPROFIT CORPORATION, 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**

**FEBRUARY 27, 2009**

**BEFORE THE ARIZONA CORPORATION COMMISSION**

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Chairman
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DIRECT

TESTIMONY

OF

CRYSTAL S. BROWN

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 27, 2009

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## SCHEDULES

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

Trico Electric Cooperative, Inc. ("Trico" or "Cooperative") is a certificated Arizona-based non-profit rural electric distribution cooperative. Trico provides power and energy to approximately 38,000 customers in portions of Pima, Pinal, and Santa Cruz counties in Arizona.

The Cooperative proposes total annual revenue of $80,793,749 as shown on Schedule CSB-1. This proposed revenue provides a $6,542,728, or 8.81 percent, revenue increase over adjusted test year revenue of $74,251,021. Operating revenue of $80,793,749 would produce an operating margin of $11,761,982 for a 7.61 percent rate of return on an original cost rate base of $154,546,824 and produces a 1.68 operating times interest earned ratio ("TIER") and a 2.06 debt service coverage ("DSC").

Staff recommends total annual revenue of $81,521,496 as shown on Schedule CSB-1. This proposed revenue provides a $6,043,717, or 8.01 percent, revenue increase over Staff adjusted test year revenue of $75,477,779. Operating revenue of $81,521,496 would produce an operating margin of $12,370,271 for an 8.80 percent rate of return on a Staff adjusted original cost rate base of $140,628,110 and produces a 1.83 operating TIER and a 1.93 debt service coverage ("DSC").

**INTRODUCTION**

**Q. Please state your name, occupation, and business address.**

A. My name is Crystal S. Brown. I am a Public Utilities Analyst V employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

**Q. Briefly describe your responsibilities as a Public Utilities Analyst V.**

A. I am responsible for the examination and verification of financial and statistical information included in utility rate applications. In addition, I develop revenue requirements, prepare written reports, testimonies, and schedules that include Staff recommendations to the Commission. I am also responsible for testifying at formal hearings on these matters.

**Q. Please describe your educational background and professional experience.**

A. I received a Bachelor of Science Degree in Business Administration from the University of Arizona and a Bachelor of Science Degree in Accounting from Arizona State University.

Since joining the Commission in August 1996, I have participated in numerous rate cases and other regulatory proceedings involving electric, gas, water, and wastewater utilities. I have testified on matters involving regulatory accounting and auditing. Additionally, I have attended utility-related seminars sponsored by the National Association of Regulatory Utility Commissioners ("NARUC") on ratemaking and accounting designed to provide continuing and updated education in these areas.

**Q. What is the scope of your testimony in this case?**

A. I am presenting Staff's analysis and recommendations in the areas of rate base, operating revenues and expenses, and revenue requirement regarding Trico Electric Cooperative, Inc.'s ("Trico" or "Cooperative") application for a permanent rate increase.

**Q. What is the basis of Staff's recommendations presented in this testimony?**

A. I performed a regulatory audit of Trico's application to determine whether sufficient, relevant, and reliable evidence exists to support the Cooperative's requested rate increase. The regulatory audit consisted of examining and testing the financial information, accounting records, and other supporting documentation and verifying that the accounting principles applied were in accordance with the Commission adopted National Rural Utilities Service ("RUS") Uniform System of Accounts ("USOA").

**Q. Who else is providing Staff testimony and what issues will they address?**

A. Staff witness J. Jeffrey Pasquinelli is presenting Staff's base cost of power and DSM recommendations. Staff witness Candrea Allen is presenting Staff's recommendations concerning the Cooperative's requested revision to its line extension policy to eliminate all free allowances. Staff witness Jerry Anderson is presenting Staff's rate design recommendations. Staff witnesses Prem Bahl is presenting Staff's cost of service analysis and Staff witness Ray Williamson is presenting Staff's engineering analysis and recommendations.

**BACKGROUND**

**Q. Please review the background of this application.**

A. Trico is a certificated Arizona-based non-profit rural electric distribution cooperative. Trico provides power and energy to approximately 38,000 customers in portions of Pima, Pinal, and Santa Cruz counties in Arizona.

Trico filed an application for a permanent rate increase on August 15, 2008. On September 12, 2008, Staff filed a letter declaring the application sufficient. Trico's current rates were authorized in Decision No. 68073, dated August 17, 2005.

**Q. What are the primary reasons for the Cooperative's requested permanent rate increase?**

A. The Cooperative states that its adjusted test year operating income is $5,219,254 resulting in a 3.38 percent rate of return and a 0.71 operating times interest earned ratio ("TIER"). According to the Cooperative, the primary reasons it filed the application are to increase equity to 30 percent of capitalization and to increase margins in order to fund more of its plant additions from internally generated cash instead of long-term debt. Additionally, the Cooperative is requesting:

1. A revision to its line extension policy to eliminate all free allowances and,
2. Modification to the RS-1 TOU rate.

**CONSUMER SERVICES**

**Q. Please provide a brief history of customer complaints received by the Commission regarding Trico.**

A. Staff reviewed the Commission's records for the period of January 1, 2006 through February 10, 2009, and found 69 complaints (primarily regarding billing disputes). One billing complaint remains open pending final investigative results. All others have been resolved and closed. There were five opinions filed in opposition to the rate increase. The Cooperative's Affidavit of Mailing the Customer Notification was filed January 13, 2009.

**SUMMARY OF PROPOSED REVENUES**

**Q. Please summarize the Cooperative's filing.**

A. The Cooperative proposes total annual revenue of $80,793,749 as shown on Schedule CSB-1. This proposed revenue provides a $6,542,728, or 8.81 percent, revenue increase over adjusted test year revenue of $74,251,021. Operating revenue of $80,793,749 would produce an operating margin of $11,761,982 for a 7.61 percent rate of return on an original cost rate base of $154,546,824 and produces a 1.68 operating TIER and a 2.06 DSC.

**Q. Please summarize Staff's recommended revenue.**

A. Staff recommends total annual revenue of $81,521,496 as shown on Schedule CSB-1. This proposed revenue provides a $6,043,717, or 8.01 percent, revenue increase over Staff adjusted test year revenue of $75,477,779. Operating revenue of $81,521,496 would produce an operating margin of $12,370,271 for an 8.80 percent rate of return on a Staff adjusted original cost rate base of $140,628,110 and produces a 1.83 operating TIER and a 1.93 DSC.

**Q. Did Staff prepare a comparative analysis showing the details of the Cooperative proposed and the Staff recommended margin increase?**

A. Yes. Staff's analysis is shown in the following table:

| | Cooperative Proposed | Difference | Staff Recommended |
|---|---|---|---|
| Margin Revenue | $30,529,433 | $(383,182) | $30,146,251 |
| Revenue Annualization | $ 0 | $ 420,238 | $ 420,238 |
| Subtotal Margin Revenue | $30,529,433 | $ 37,056 | $30,566,489 |
| | | | |
| Power Revenue | $48,668,102 | $255,813 | $48,923,915 |
| Pur Power Revenue Annualization | $ 0 | $550,706 | $ 550,706 |
| Subtotal Power Revenue | $48,668,102 | $806,519 | $49,474,621 |
| | | | |
| Demand Side Mgmt Adjustor | $ 115,828 | $(115,828) | $ 0 |
| Sales for Resale - Other | $ 10,144 | $ 0 | $ 10,144 |
| Other Revenues | $ 1,470,242 | $ 0 | $1,470,242 |
| **Total Annual Revenue** | **$80,793,749** | **$ 727,748** | **$81,521,497** |
| | | | |
| Purchased Power Expense | $48,668,102 | $255,813 | $48,923,915 |
| Purchased Power Exp Annualization | $ 0 | $550,706 | $ 550,706 |
| Subtotal Purchased Power Expense | $48,668,102 | $806,519 | $49,474,621 |
| | | | |
| All Other Expenses | $20,363,664 | $(859,924) | $19,503,740 |
| Expense Annualization | $ 0 | $ 172,864 | $ 172,864 |
| **Total Annual Expenses** | **$69,031,766** | $ 119,459 | $69,151,225 |
| | | | |
| **Oper Margin Before Int Exp** | **$11,761,983** | **$608,288** | **$12,370,271** |
| | | | |
| Interest Exp on L.T. Debt | $7,195,345 | $ 0 | $7,195,345 |
| | | | |
| **Oper Margin After Int Exp** | **$4,566,638** | **$608,288** | **$5,174,926** |

**Q. What test year did Trico utilize in this filing?**

A. Trico's rate filing is based on the twelve months ended December 31, 2007 ("test year").

**Q. Please summarize the rate base and operating income recommendations and adjustments addressed in your testimony for Trico.**

A. My testimony addresses the following issues:

**Rate Base Adjustments**

Plant Held for Future Use – This adjustment decreases rate base by $198,972 to remove plant that is not used and useful.

Construction Work In Progress – This adjustment decreases rate base by $8,148,627 to remove plant that was under construction at the end of the test year.

Accumulated Depreciation, Automatic Meter Readers ("AMR's) – This adjustment increases rate base by $49,161 to remove accelerated depreciation not approved by the Commission and the accumulated depreciation expense on a retirement work in progress.

Consumer Deposits – This adjustment decreases rate base by $47,022 to reflect the test year-end consumer deposits balance.

Working Capital – This adjustment decreases rate base by $5,573,254 to eliminate the Cooperative's recognition of working capital components that only increase rate base.

**Operating Margin Adjustments**

Revenue and Expense Annualizations – This adjustment increases revenues and expenses by $970,945 and 723,570, respectively, to reflect the revenues and expenses at the test year-end customer level.

Base Cost of Power and Wholesale Power Cost Adjustor ("WPCA") – This adjustment increases revenues by $255,813 as a result of matching the Base Cost of Power Revenue to the Staff proposed Base Cost of Power Expense and eliminating the WPCA revenues from operating revenues.

Demand Side Management Expenses – This adjustment decreases operating expenses by $115,828 to remove costs that Staff recommends to flow through an adjustor mechanism.

Normalized Administrative and General Expenses – This adjustment decreases operating expenses by $105,922 to reflect administrative and general expenses at a normalized level.

Employee Payroll, Benefits, and Payroll Taxes – This adjustment decreases operating expenses by $119,277 to reflect Staff's recommended level of employees.

Year-End Bonuses – This adjustment decreases operating expenses by $20,700 to remove optional expenses that are not needed for the provision of service.

Advertising and Lobbying Expenses – This adjustment decreases operating expenses by $131,462 to remove advertising expenses incurred for image building and lobbying expenses.

Property Taxes – This adjustment decreases expenses by $366,736 to reflect the Cooperative's most recent property tax bill.

Capital Credits – This adjustment decreases net margins by $1,986,966 to reflect the portion of reported capital credits that are cash.

**RATE BASE**

**Fair Value Rate Base**

**Q. Did the Cooperative prepare a schedule showing the elements of Reconstruction Cost New Rate Base?**

A. No, the Cooperative did not. The Cooperative's filing treats the OCRB the same as the fair value rate base.

**Rate Base Summary**

**Q. Please summarize Staff's adjustments to Trico's rate base shown on Schedules CSB-2 and CSB-3.**

A. Staff's adjustments to Trico's rate base resulted in a net decrease of $13,918,714, from $154,546,824 to $140,628,110. This decrease was primarily due to Staff: (1) removing construction work in progress and (2) removing the Cooperative's selective recognition of working capital components.

**Rate Base Adjustment No. 1 – Plant Held for Future Use**

**Q. What plant is the Cooperative holding for future use?**

A. The Cooperative is holding two parcels of land costing $198,972 for future use and proposes to include the cost of the land in rate base.

**Q. Why is the land being held?**

A. The land is being held for future substation and headquarters expansion sites.

**Q. Should land that is held for future use be included in rate base?**

A. No, because it was not used and useful during the test year.

**Q. Did the Commission disallow Plant Held for Future Use in the Cooperative's last rate case?**

A. Yes, in Decision No. 68073, dated August 17, 2005.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing rate base by $198,972 as shown on Schedules CSB-3 and CSB-4.

**Rate Base Adjustment No. 2 – Construction Work In Progress ("CWIP")**

**Q. Did the Cooperative inadvertently include CWIP in rate base?**

A. Yes, the Company indicated in response to a data request that inclusion of $8,148,627 in CWIP was an oversight.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing rate base by $8,148,627 as shown on Schedules CSB-3 and CSB-5.

**Rate Base Adjustment No. 3– Accumulated Depreciation**

**Q. What is the Cooperative proposing for accumulated depreciation?**

A. The Cooperative is proposing $35,593,254 for accumulated depreciation as shown on Schedule CSB-3.

**Q. What adjustment did Staff make to accumulated depreciation?**

A. Staff removed $189,924 of accumulated depreciation calculated using an accelerated depreciation rate not approved by the Commission. Further, Staff added $140,763 for depreciation expense for a plant asset that was in the process of being retired at the end of the test year.

**Q. What is Staff's recommendation?**

A. Staff recommends that accumulated depreciation be decreased by $49,161 as shown Schedule CSB-3 and CSB-6.

**Rate Base Adjustment No. 4 – Consumer Deposits**

**Q. What is the Cooperative's actual test year end consumer deposits balance?**

A. The Cooperative's actual test year end consumer deposits balances is $1,171,452.

**Q. When is it appropriate to adjust actual test year-end balances?**

A. It is appropriate to adjust actual test year-end balances when the adjustments provide a more realistic relationship between revenues, expenses, and rate base than the actual test year results.

**Q. What adjustments to the consumer deposits balance is the Cooperative proposing?**

A. The Cooperative is proposing to decrease consumer deposits by $47,022 as a result of averaging the balances.

**Q. What is the effect of averaging the balances?**

A. The effect is that the capital provided by customers in the form of advances and deposits is understated which, in turn, results in an over-stated rate base.

**Q. Does Trico's adjustment to the consumer deposit balance provide a more realistic relationship between revenues, expenses, and rate base?**

A. No, it does not. The actual plant in service balance, which is the most significant component of rate base, was not averaged. Therefore, to be consistent with plant in service, the actual balances of consumer deposits and advances should also be used.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing rate base by $47,022 to reflect the actual test year end balances for consumer deposits as shown on Schedules CSB-3 and CSB-7.

**Rate Base Adjustment 5 – Working Capital**

**Q. What are the components of working capital?**

A. The components of working capital as prescribed by the Arizona Administrative Code are cash working capital ("CWC"), materials and supplies, and prepaid expenses.

**Q. Can total working capital be a negative amount that is deducted from rate base?**

A. Yes, this can happen when CWC is negative and is larger than the sum of the materials, supplies, and prepayments.

**Q. Does the Cooperative's proposal to include materials, supplies, and prepayments in working capital represent an inequitable adjustment to increase rate base?**

A. Yes. The Cooperative chose not to conduct a lead-lag study, and accordingly, failed to reflect any customer provided capital in its working capital requirement.

It is inequitable for a company the size of Trico to calculate working capital by using a method that ignores customer provided capital while guaranteeing a positive working capital result for Trico. Had a lead-lag study been conducted, it might have shown that working capital is a negative component of rate base.

**Q. What is Staff's recommendation?**

A. Staff recommends removing $5,573,254 for materials, supplies and prepayments as shown on Schedules CSB-3 and CSB-8.

## Operating Margin

### Operating Margin Summary

**Q. What are the results of Staff's analysis of test year revenues, expenses and operating margin?**

A. As shown on Schedules CSB-9 and CSB-10 Staff's analysis resulted in test year revenues of $75,477,779, expenses of $69,151,225 and operating margin before interest expense of $6,326,553.

### Operating Margin Adjustment No. 1 – Revenue and Expense Annualizations

**Q. What is the purpose of revenue and expense annualizations?**

A. Revenue and expense annualizations are made to achieve matching with the year end rate base measurement date. The adjustments reflect the known and measurable changes to customer counts during the test year. Revenues are annualized to reflect sales that would have occurred if customers on the system at the end of the test year had taken service for the entire year. Likewise, variable expenses are annualized to reflect the increased costs to provide the level of sales related to year-end customers.

**Q. What was the increase in customers during the test year?**

A. Trico's customer count grew by 1,614 from 36,505 at the beginning of the year to 38,119 at the end of the year.

**Q. What number of customers did Staff use to annualize revenues to the end of year level?**

A. Staff annualized revenues by assuming customer growth takes place evenly over the course of the year. Therefore, Staff's calculation of the additional bills and kWhs is based on the average increase of 807 customers (i.e., 807 = 1,614 / 2).

**Q. What amount of additional revenue did the annualization produce?**

A. The annualization produced an additional $970,945 in revenue. Staff's calculations are shown on Schedule CSB-11, page 2.

**Q. Did Staff match the annualized purchased power costs recovered through revenue to the annualized purchased power expense?**

A. Yes, $550,706 was added to both revenues and expenses as shown on Schedule CSB-11, Page 1, lines 2 and 5. Matching is necessary because the Cooperative has a power cost adjustor that facilitates full recovery of the Cooperative's purchased power costs.

**Q. What net effect does purchased power costs have on Staff's annualization?**

A. Regardless of the level used in the annualization, purchased power costs will have no net effect. This is because the same power cost will be used in both revenues and expenses.

**Q. How did Staff annualize expenses?**

A. Staff's analysis found that the number of customers grew at a rate of 4.42 percent from 2006 to 2007. Staff calculated an annualization factor of 2.21 percent which represents the growth rate of 4.42 percent assuming that growth takes place evenly over the year. Staff applied the 2.21 annualization factor to variable test year expenses (except purchased power expense) as shown on Schedule CSB-11, Page 1, lines 28 through 32. Purchased power expense was calculated by multiplying the additional annualized kilowatt-hours ("kWhs") by the base cost of power rate.

**Q. What amount of additional expenses did the annualization produce?**

A. The annualization produced an additional $723,570 in expenses. Staff's calculations are shown on Schedule CSB-11, Page 1, lines 18 through 22.

**Q. What is Staff's recommendation?**

A. Staff recommends increasing revenues by $970,945 and expenses by $723,570 as shown on Schedules CSB-10 and CSB-11.

**Operating Margin Adjustment 2 – Base Cost of Power Revenue and Wholesale Power Cost Adjustor**

**Q. Explain the purpose of the break-out of the total revenue from sales of electricity into components as shown on Schedules CSB-10 and -12.**

A. The purpose is to show the portion of revenue that is generated from base rates separately from revenue that is generated from margin revenue, and the wholesale power cost adjustor.

**Q. Does Trico's power revenue match its purchased power expense?**

A. No. The Cooperative's filing reflects $37,912,600 in test year power revenue and $48,668,102 in test year purchased power expense, for a difference of $10,755,503 as shown on Schedules CSB-10 and CSB-12.

**Q. What is the cause of the mismatch?**

A. The Cooperative proposes to "restate the WPCA revenue based on the adjusted power cost and to zero out the fuel bank.[1]" The Cooperative reflects the $10,755,503 difference in the wholesale power costs adjustor revenues.

**Q. For ratemaking purposes, should the $10,755,503 difference be reflected in power revenue or WPCA revenue?**

A. The $10,755,503 difference should be reflected in the power revenue because to include any WPCA revenue in test year operating revenue will under or overstate the amount of revenue increase needed from base rates. Further, the WPCA rate is set using a mechanism that is different from that used to set base rates. Moreover, the WPCA rate can change outside of a rate case based on over or under collections in the Cooperative's fuel bank. Consequently, Staff's adjustment removes the $10,755,503 from the WPCA revenue and adds it to the power revenue.

**Q. Should Trico's test year power revenue equal purchased power expense?**

A. Yes. The Cooperative has a power cost adjustor mechanism that facilitates full recovery of all purchased power costs. The adjustor mechanism ensures that the Cooperative neither over nor under recovers purchased power cost. This means that changes in the cost of purchased power do not affect income. The difference between the amount

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[1] Searcy Direct page 5 at 17

collected from customers and the amount paid to power suppliers for purchased power in any year due to timing differences is reflected on the balance sheet as an asset or liability, not on the income statement.

Failure to recognize equal amounts for the revenue and expense associated with purchased power when an adjustor mechanism is in effect is inconsistent with the USOA. This mismatch results in a misstatement of income. Therefore, any pro forma adjustment to purchased power expense must be offset by an equal adjustment to base cost of power revenue.

**Q. Did Staff make an adjustment to match Staff's recommended power revenue to its recommended purchased power expense?**

A. Yes, Staff added $255,813 to power revenue and purchased power expense.

**Q. What is Staff's recommendation?**

A. Staff recommends increasing base cost of power revenue by $255,813 to match Staff's recommended $48,923,915 in purchased power expense and eliminating the $10,755,502 WPCA as shown on Schedules CSB-10 and CSB-12.

**Operating Margin Adjustment 3 – Demand Side Management ("DSM") Expenses**

**Q. What are DSM expenses?**

A. DSM expenses are incurred to promote reduction in the amount of power usage through customer education and other programs.

**Q. What amount in DSM costs did the Cooperative report in the test year?**

A. The Company reported $115,828 in DSM costs as shown on Schedule CSB-13.

**Q. Is Staff recommending that the Cooperative's approved DSM costs flow through its adjustor mechanism?**

A. Yes. As discussed in the testimony of J. Jeffery Pasquinelli, Staff is recommending that approved DSM costs flow through the Cooperative's adjustor mechanism. This will allow the Cooperative to recover or refund changes in its approved DSM costs without filing a permanent rate increase application. Therefore, Staff removed the DSM costs from the revenue requirement.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing operating expense by $115,828 as shown on Schedule CSB-10 and CSB-13.

**Operating Margin Adjustment No. 4 – Normalized Administrative and General Expenses**

**Q. What amount did administrative and general salaries expense increase from 2006 to 2007?**

A. The Cooperative's administrative and general expenses increased by $211,844, from $1,156,400 in 2006 to $1,368,244 in 2007.

**Q. What was the primary cause of the increase?**

A. Staff determined through Trico's response to a Staff data request that the majority of the increase was due to the Cooperative paying for the salary of two Chief Executive Officers: Mark Schwirtz, the current CEO and Marv Athey, the previous CEO who had deferred compensation costs in 2007.

**Q. What adjustment did Staff make?**

A. Staff calculated a two-year average to reflect administrative and general salaries expense at a normalized level.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing administrative and general expense by $105,922 as shown on Schedules CSB-10 and CSB-14.

**Operating Margin Adjustment No. 5 – Employee Payroll, Benefits, and Payroll Taxes**

**Q. What adjustment did the Cooperative propose for employee payroll, benefits, and payroll taxes?**

A. The Cooperative proposed to increase operating expenses by $378,687 to reflect the employee payroll, benefits, and payroll taxes of 132 full-time employees and 12 part-time employees using 2008 wage levels. The part-time employee count of 12 included 6 employees that were not employed during the test year.

**Q. Is recognition of the six additional part-time employees that were not hired during the test year appropriate?**

A. No, it is not. Staff determined, through review of the Cooperative's historical employee levels and responses to data requests, that an increase in the number of part-time employees was not warranted. Therefore, Staff utilized the test year level of part-time employees in operating expenses.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing operating expense by $119,277 as shown on Schedules CSB-10 and CSB-15.

**Operating Margin Adjustment No. 6 – Year End Bonuses**

**Q. What is Trico proposing for year end bonuses?**

A. Trico is proposing $20,700 for year end bonuses as shown on Schedule CSB-16.

**Q. Is the cost of bonuses necessary to provide safe and reliable service?**

A. No, employee bonuses are not necessary to provide safe and reliable service. Trico pays its employees competitive salary, wage and benefits packages with regular annual wage increases. These costs are designed to compensate the employees to perform work that will enable the Cooperative to provide safe and reliable service. Therefore, the cost of the employees' base salaries and wages is a required cost. The cost of bonuses is an optional cost and, therefore, should not be recognized as an operating cost.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing operating expense by $20,700 as shown on Schedules CSB-9 and CSB-16.

**Operating Margin Adjustment No. 7 – Advertising and Lobbying Expenses**

**Q. What is Trico proposing for advertising and lobbying expenses?**

A. Trico is proposing $131,462 for advertising incurred for image building and lobbying expenses as shown on Schedule CSB-17.

**Q. Why did Staff recommend disallowance of the advertising expense?**

A. Through analysis of Trico's responses to Staff data requests CSB 1.39, 1.40, and 1.46, Staff determined that $113,735 of the cost for advertising pertained to image building. Since this cost is voluntary, it is not necessary to provide service. Consequently, Staff recommends that it be recognized as non-operating expense and excluded from the revenue requirement.

**Q. Why did Staff recommend disallowance of the lobbying expense?**

A. When a utility claims that lobbying activities benefit ratepayers, the utility is presuming that its customers would consent to the lobbying efforts. However, customers have not been given the prior opportunity to assess the lobbying efforts and either agree or object to participation. Further, such an assessment might entail quantifying the benefit of each lobbying effort in terms of dollars to determine whether or not the cost of the lobbying activities exceeds the benefit derived from it. In addition, the disallowance of lobbying expenses is consistent with prior Commission decisions and with the treatment of such expenses in other jurisdictions.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing operating expense by $131,462 as shown on Schedules CSB-10 and CSB-17.

**Operating Margin No. 8 – Property Taxes**

**Q. What is the Cooperative proposing for Property Taxes?**

A. Trico is proposing $2,888,439. The amount is composed of $2,524,023 for property tax incurred during the test year and a pro-forma adjustment of $364,482 to reflect property taxes on a going forward basis.

**Q. What adjustment did Staff make to Property Taxes?**

A. Staff adjusted property taxes to reflect the Cooperative's 2008 property tax bill in the amount of $2,521,703. The 2008 property tax bill more appropriately reflects the going forward level of property taxes.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing property taxes by $366,736 as shown on Schedules CSB-10 and CSB-18.

**Operating Margin Adjustment No. 9 – Capital Credits**

**Q. What are capital credits?**

A. Capital credits are ownership interests cooperatives receive as a result of doing business with another cooperative. For example, the net margins (or profit) of generation and transmission cooperatives are distributed through capital credits to the distribution cooperatives that buy power from them. Capital credits are required to be reported in the income statement as non-operating revenue.

**Q. What amount is Trico proposing for Capital Credits?**

A. The Cooperative proposes $2,058,436 for Capital Credits as shown on Schedule CSB-19.

**Q. Do Capital Credits necessarily represent cash receipts?**

A. No. Capital credits are earnings from another cooperative, only some of which might be received in cash as a distribution. Capital credits are accounting income. The dollar amount cooperatives report as capital credits on the income statement will differ from the cash amount they actually receive because capital credits received in one year are generally paid in a subsequent year.

**Q. What adjustment did Staff make?**

A. Staff removed non-cash capital credits.

**Q. What is Staff's recommendation?**

A. Staff recommends decreasing capital credits by $1,986,966 as shown on Schedules CSB-10 and CSB-19.

## REVENUE REQUIREMENT – DEBT SERVICE COVERAGE

**Q. What are the primary factors considered in determining the Cooperative's revenue requirement?**

A. Staff's revenue requirement is primarily driven by the revenues needed to pay the principal and interest on long-term debt, and to meet the minimum 1.25 for both the times interest earned ratio ("TIER") and the debt service coverage ("DSC") ratio required by the RUS. Additionally, Staff's revenue requirement provides sufficient cash flow to pay operating expenses and to build equity.

**Q. What was the amount of the Cooperative's outstanding long-term debt at the end of the test year, and what was the test year interest expense incurred?**

A. At the end of the test year, the Cooperative had $120,358,339 in long-term debt, and it incurred $5,912,629 in interest expense.[2] The Cooperative made proforma adjustments to increase long-term debt and interest expense by $11,696,155 and $831,996, respectively, to reflect drawn downs subsequent to the test year. The total amount of long-term debt and interest expense proposed by the Company and adopted by Staff is $132,054,494 and $6,744,625, respectively.

[2] Per the 2007 Form 7

**Q. Has the Commission recently approved an $84 million loan for Trico?**

A. Yes, in Decision No. 70399, dated July 3, 2008.

**Q. Did Staff consider a portion of this loan in the determination of the Cooperative's revenue requirement?**

A. Yes, Staff's revenue is sufficient to cover the principal and interest payments on $46.5 million of the $84 million loan as well as the Cooperative's existing $132,054,494 in loans.

**Q. Why did Staff include only $46.5 million and not the full $84 million loan?**

A. The Cooperative's construction plan covers a five year period from mid-2008 to mid-2013 as shown in the following table.[3]

| Year of Draw | Amount Drawn | Maturity Date |
|---|---|---|
| 2008 | $10,500,000 | 2043 |
| 2009 | $18,000,000 | 2044 |
| 2010 | $18,000,000 | 2045 |
| 2011 | $18,000,000 | 2046 |
| 2012 | $18,000,000 | 2047 |
| 2013 | $ 1,480,000 | 2048 |
| **Total** | **$83,980,000** | |

The purpose of the $84 million loan is to finance the construction of additional and supplemental facilities to provide for expected growth and to properly maintain plant. Consequently, including the entire $84 million loan in the revenue requirement would cause test year customers to pay for a portion of plant that will be used by future customers.

[3] Page 2 of Trico Electric Cooperative's application for $84 million financing authorization (Docket No. E-01461A-07-0433).

The Cooperative anticipates that it will file its next rate case within the next three years[4]. Accordingly, Staff included debt service coverage for $46.5 million which represents the total draw downs for the years 2008, 2009, and 2010. The remaining $33.5 million (i.e., $80 million – $46.5 million) can be requested when the Cooperative files its next rate case.

**Q. Why are TIER and DSC ratio requirements utilized for a cooperative rather than a cost of capital analysis?**

A. TIER and DSC ratio requirements are utilized because the customers/members are also the owners of the cooperative.

**Q. Would you please briefly define the DSC ratio and the TIER?**

A. DSC measures an entity's ability to generate cash flow to pay its debt service obligations (interest and principal) from operating activities. It is calculated by dividing (1) earnings before interest, taxes, and depreciation expense by (2) the principal and interest payments. When DSC is greater than 1.0, operating cash flow is sufficient to cover debt obligations. TIER measures the number of times operating income will cover interest on long-term debt. It is calculated by dividing (1) operating margin after interest on long-term debt plus interest on long-term debt by (2) interest on long-term debt. When TIER is greater than 1.0, operating income is sufficient to cover interest expense.

**Q. Do the Applicant's lenders have debt covenants for TIER and DSC?**

**A.** Yes. The Rural Utilities Service ("RUS") requires Trico to maintain a minimum TIER of 1.25 and a minimum DSC of 1.25.

[4] As evidenced by the three year period the Cooperative used to normalize its rate case expense.

**Q. What TIER and DSC level does the Cooperative claim will result from its proposed revenues?**

A. The Cooperative claims its proposed revenues would result in a 1.68 TIER and a 2.06 DSC.

**Q. What is Staff's recommendation to satisfy Trico's DSC and TIER requirements?**

A. Staff recommends revenue of $81,521,496 to provide a 1.93 DSC and a 1.83 TIER. Staff's proposed revenue would generate enough cash flow to service the Cooperative's debt and comply with RUS debt coverage requirements, allow for reasonable contingencies, and build equity.

**Q. What is Staff's recommended increase over the Staff adjusted test year revenue?**

A. Staff's recommended revenue of $81,521,496 is a $6,043,717 (or an 8.01 percent) increase over the Staff adjusted test year revenue of $75,477,779.

**Q. Is an 8.01 percent increase representative of the increase to customer bills on average with Staff's recommended revenue requirement?**

A. No. Customer bills are comprised of margin costs and the cost of purchased power. The margin cost portion of customer bills would increase on average by 8.01 percent. The cost of power portion of customer bills reflects, on average, the Cooperative's actual cost of purchased power. The cost of purchased power fluctuates and might result in a different increase or decrease in customers' bills.

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

A. Yes, it does.

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Test Year Ended December 31, 2007

Schedule CSB-1

**REVENUE REQUIREMENT**

| LINE NO. | DESCRIPTION | | [A] COMPANY ORIGINAL COST | | [B] STAFF ORIGINAL COST |
|---|---|---|---|---|---|
| 1 | Adjusted Operating Margin (Loss) Before Interest Expense | $ | 5,219,254 | $ | 6,326,553 |
| 2 | Depreciation and Amortization | $ | 5,736,387 | $ | 5,736,387 |
| 3 | Income Tax Expense | | - | | - |
| 4 | Long-term Interest Expense | $ | 6,744,625 | $ | 6,744,625 |
| 5 | Principal Repayment | $ | 2,612,943 | $ | 2,612,943 |
| 6a | **Recommended Increase in Operating Revenue** | $ | 6,542,728 | **$** | **6,043,717** |
| 6b | **Percent Increase (Line 6a / Line 7) - Per Staff** | | N/A | | **8.01%** |
| 6c | Percent Increase (Line 6a / Line 7) - Per Cooperative | | 8.81% | | N/A |
| 7 | Adjusted Test Year Operating Revenue | $ | 74,251,021 | $ | 75,477,779 |
| 8 | **Recommended Annual Operating Revenue** | $ | 80,793,749 | **$** | **81,521,496** |
| 9a | **Recommended Operating Margin Before Interest Exp** | $ | 11,761,982 | **$** | **12,370,271** |
| 9b | Recommended Net Margin | $ | 6,798,238 | $ | 5,419,561 |
| 10a | **Recommended Operating TIER (L3+L9a)/L4 - Per Staff** | | N/A | | **1.83** |
| 10b | Recommended Operating TIER - Per Cooperative | | 1.68 | | N/A |
| 10c | Recommended Net TIER - Per Cooperative | | 2.01 | | N/A |
| 11a | **Recommended DSC (L2+L3+L9a)/(L4+L5) - Per Staff** | | N/A | | **1.93** |
| 11b | Recommended DSC (L2+L4+L9b)/(L4+L5) - Per Cooperative | | 2.06 | | N/A |
| 12 | **Adjusted Rate Base** | $ | 154,546,824 | **$** | **140,628,110** |
| 13 | Rate of Return (L9a / L12) | | 7.61% | | 8.80% |

References:
Column [A]: Company Schedules A-1, C-1, C-3
Column [B]: Staff Schedules CSB-2, CSB-11, Testimony

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**Schedule CSB-2**

## RATE BASE - ORIGINAL COST

| LINE NO. | | [A] COMPANY AS FILED | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|
| 1 | Plant in Service | $ 184,431,148 | $ (198,972) | $ 184,232,176 |
| 2 | Less: Acc Depreciation & Amortization | (35,593,925) | 49,161 | (35,544,764) |
| 3 | Net Plant in Service | $ 148,837,223 | $ (149,811) | $ 148,687,412 |
| 4 | Construction Work In Progress (CWIP) | 8,148,627 | (8,148,627) | - |
| 5 | Net Plant in Service and CWIP | $ 156,985,850 | $ (8,298,438) | $ 148,687,412 |
| 6 | | | | |
| 7 | *LESS:* | | | |
| 8 | | | | |
| 9 | Deferred Credits | $ (6,887,850) | $ - | $ (6,887,850) |
| 10 | Consumer Deposits | $ (1,124,430) | $ (47,022) | $ (1,171,452) |
| 11 | Total | (8,012,280) | (47,022) | (8,059,302) |
| 12 | | | | |
| 13 | | | | |
| 14 | *ADD:* | | | |
| 15 | | | | |
| 16 | Cash Working Capital | $ - | $ - | $ - |
| 17 | Materials and Supplies | $ 4,978,946 | $ (4,978,946) | $ - |
| 18 | Prepayments | $ 594,308 | $ (594,308) | $ - |
| 19 | Total | $ 5,573,254 | $ (5,573,254) | $ - |
| 20 | | | | |
| 21 | **Total Rate Base** | $ 154,546,824 | $ (13,918,714) | $ 140,628,110 |

References:
Column [A], Cooperative Schedule B-1
Column [B]: Schedules CSB-2 through CSB-7
Column [C]: Column [A] + Column [B]

**Trico Electric Cooperative**
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**Schedule CSB-3**

## SUMMARY OF RATE BASE ADJUSTMENTS

| LINE NO. | Acct. No. | DESCRIPTION | [A] COOPERATIVE AS FILED | [B] Plant Held For Future Use ADJ No.1 Ref: Sch CSB-4 | [C] Construction Work In Progress ("CWIP") ADJ No. 2 Ref: Sch CSB-5 | [D] Accumulated Depreciation ADJ No. 3 Ref: Sch CSB-6 | [E] Consumer Deposits ADJ No. 4 Ref: Sch CSB-7 | [F] Working Capital ADJ No. 5 Ref: Sch CSB-8 | [G] STAFF ADJUSTED |
|---|---|---|---|---|---|---|---|---|---|
| | | *PLANT IN SERVICE:* | | | | | | | |
| 1 | 105 | Plant Held for Future Use | $ 198,972 | $ (198,972) | $ - | $ - | $ - | $ - | $ 0 |
| 2 | 301 | Intangible Plant - Organization | $ 1,180 | $ - | $ - | $ - | $ - | $ - | $ 1,180 |
| 3 | 350 | Transmission Plant - Land and Land Rights | $ 532,578 | $ - | $ - | $ - | $ - | $ - | $ 532,578 |
| 4 | 353 | Transmission Plant - Station Equipment | $ 121,499 | $ - | $ - | $ - | $ - | $ - | $ 121,499 |
| 5 | 355 | Transmission Plant - Poles and Fixtures | $ 1,617,267 | $ - | $ - | $ - | $ - | $ - | $ 1,617,267 |
| 6 | 356 | Transmission Plant - OH Conductors and Devices | $ 1,138,636 | $ - | $ - | $ - | $ - | $ - | $ 1,138,636 |
| 7 | 360 | Distribution Plant - Land and Land Rights | $ 101,005 | $ - | $ - | $ - | $ - | $ - | $ 101,005 |
| 8 | 361 | Distribution Plant - Photovoltaic Equipment | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 9 | 362 | Distribution Plant - Station Equipment | $ 10,169,518 | $ - | $ - | $ - | $ - | $ - | $ 10,169,518 |
| 10 | 362.12 | Distribution Plant - Mt. Lemmon Standby Generator | $ 875,063 | $ - | $ - | $ - | $ - | $ - | $ 875,063 |
| 11 | 364 | Distribution Plant - Poles, Towers, and Fixtures | $ 16,639,932 | $ - | $ - | $ - | $ - | $ - | $ 16,639,932 |
| 12 | 365 | Distribution Plant - Conductors and Devices | $ 17,878,151 | $ - | $ - | $ - | $ - | $ - | $ 17,878,151 |
| 13 | 366 | Distribution Plant - Underground Conduit | $ 2,283,636 | $ - | $ - | $ - | $ - | $ - | $ 2,283,636 |
| 14 | 367 | Distribution Plant - Underground Conductors | $ 71,364,858 | $ - | $ - | $ - | $ - | $ - | $ 71,364,858 |
| 15 | 368 | Distribution Plant - Transformers | $ 24,699,678 | $ - | $ - | $ - | $ - | $ - | $ 24,699,678 |
| 16 | 369 | Distribution Plant - Services | $ 7,115,841 | $ - | $ - | $ - | $ - | $ - | $ 7,115,841 |
| 17 | 370 | Distribution Plant - Meters | $ 10,307,398 | $ - | $ - | $ - | $ - | $ - | $ 10,307,398 |
| 18 | 371 | Distribution Plant - Install. On Customers Premises | $ 326,780 | $ - | $ - | $ - | $ - | $ - | $ 326,780 |
| 19 | 373 | Distribution Plant - Street Lighting and Signal Syst | $ 1,561 | $ - | $ - | $ - | $ - | $ - | $ 1,561 |
| 20 | 389 | General Plant - Land and Land Rights | $ 734,514 | $ - | $ - | $ - | $ - | $ - | $ 734,514 |
| 21 | 390 | General Plant - Structures and Improvements | $ 9,866,470 | $ - | $ - | $ - | $ - | $ - | $ 9,866,470 |
| 22 | 390.01 | General Plant - Structures, Mt. Lemmon | $ 22,687 | $ - | $ - | $ - | $ - | $ - | $ 22,687 |
| 23 | 391 | General Plant - Office Furniture and Equipment | $ 1,591,657 | $ - | $ - | $ - | $ - | $ - | $ 1,591,657 |
| 24 | 392 | General Plant - Transportation Equipment | $ 4,126,307 | $ - | $ - | $ - | $ - | $ - | $ 4,126,307 |
| 25 | 393 | General Plant - Stores Equipment | $ 258,654 | $ - | $ - | $ - | $ - | $ - | $ 258,654 |
| 26 | 394 | General Plant - Tools, Shop, & Garage Equipment | $ 570,986 | $ - | $ - | $ - | $ - | $ - | $ 570,986 |
| 27 | 395 | General Plant - Laboratory Equipment | $ 596,415 | $ - | $ - | $ - | $ - | $ - | $ 596,415 |
| 28 | 396 | General Plant - Power Operated Equipment | $ 695,789 | $ - | $ - | $ - | $ - | $ - | $ 695,789 |
| 29 | 397 | General Plant - Communications Equipment | $ 473,920 | $ - | $ - | $ - | $ - | $ - | $ 473,920 |
| 30 | 398 | General Plant - Miscellaneous | $ 107,026 | $ - | $ - | $ - | $ - | $ - | $ 107,026 |
| 31 | 399 | General Plant - Other Tangible Plant, Generator | $ 13,170 | $ - | $ - | $ - | $ - | $ - | $ 13,170 |
| 32 | | Total Plant in Service | $ 184,431,148 | $ (198,972) | $ - | $ - | $ - | $ - | $ 184,232,176 |
| 33 | | Construction Work In Progress (CWIP) | $ 8,148,627 | $ - | $ (8,148,627) | $ - | $ - | $ - | $ - |
| 34 | | Total Plant in Service and CWIP | $ 192,579,775 | $ (198,972) | $ (8,148,627) | $ - | $ - | $ - | $ 184,232,176 |
| 35 | | | | | | | | | |
| 36 | | Less: Accumulated Depreciation | $ (35,593,925) | $ - | $ - | $ 49,161 | $ - | $ - | $ (35,544,764) |
| 37 | | Less: Accumulated Amortization | - | - | - | - | - | - | - |
| 38 | | Total Accumulated Depreciation & Amortization | $ (35,593,925) | $ - | $ - | $ 49,161 | $ - | $ - | $ (35,544,764) |
| 39 | | | | | | | | | |
| 40 | | Net Plant in Service | $ 156,985,850 | $ (198,972) | $ (8,148,627) | $ 49,161 | $ - | $ - | $ 148,687,412 |
| 41 | | | | | | | | | |
| 42 | | *LESS:* | | | | | | | |
| 43 | | Deferred Credits | $ (6,887,850) | $ - | $ - | $ - | $ - | $ - | $ (6,887,850) |
| 44 | | Consumer Deposits | $ (1,124,430) | $ - | $ - | $ - | $ (47,022) | $ - | $ (1,171,452) |
| 45 | | Total | $ (8,012,280) | $ - | $ - | $ - | $ (47,022) | $ - | $ (8,059,302) |
| 46 | | | | | | | | | |
| 47 | | *ADD:* | | | | | | | |
| 48 | | Cash Working Capital | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 49 | | Materials and Supplies | $ 4,978,946 | $ - | $ - | $ - | $ - | $ (4,978,946) | $ - |
| 50 | | Prepayments | $ 594,308 | $ - | $ - | $ - | $ - | $ (594,308) | $ - |
| 51 | | Total | $ 5,573,254 | $ - | $ - | $ - | $ - | $ (5,573,254) | $ - |
| 52 | | | | | | | | | |
| 53 | | **Total Rate Base** | $ 154,546,824 | $ (198,972) | $ (8,148,627) | $ 49,161 | $ (47,022) | $ (5,573,254) | $ 140,628,110 |

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**Schedule CSB-4**

## RATE BASE ADJUSTMENT NO. 1 - PLANT HELD FOR FUTURE USE

| | | [A] | [B] | [C] |
|---|---|---|---|---|
| **LINE NO.** | **DESCRIPTION** | **COMPANY AS FILED** | **STAFF ADJUSTMENTS** | **STAFF AS ADJUSTED** |
| 1 | Plant in Service | $ 184,232,176 | $ - | $ 184,232,176 |
| 2 | Plant Held for Future Use | 198,972 | (198,972) | - |
| 3 | Total Plant | $ 184,431,148 | $ (198,972) | $ 184,232,176 |

References:
Column [A]: Cooperative Schedules C-2.0
Column [B]: Testimony, CSB; Data Request Response CSB 7.1
Column [C]: Column [A] + Column [B]

**Trico Electric Cooperative**
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**Schedule CSB-5**

## RATE BASE ADJUSTMENT NO. 2 - CONSTRUCTION WORK IN PROGRESS ("CWIP")

| LINE NO. | DESCRIPTION | [A] COMPANY AS FILED | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|
| 1 | Construction Work In Progress | 8,148,627 | (8,148,627) | - |

References:
Column [A]: Cooperative Schedules B-1.0, C-2.0
Column [B]: Testimony, CSB; Data Request Response CSB 3-1
Column [C]: Column [A] + Column [B]

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**Schedule CSB-6**

## RATE BASE ADJUSTMENT NO. 3 - ACCUMULATED DEPRECIATION

| | | [A] | [B] | [C] |
|---|---|---|---|---|
| **LINE NO.** | **DESCRIPTION** | **COMPANY AS FILED** | **STAFF ADJUSTMENTS** | **STAFF AS ADJUSTED** |
| 1 | Accumulated Depreciation before Accelerated Depr | $ 35,544,764 | $ - | $ 35,544,764 |
| 2 | Accelerated Depreciation on AMR | 189,924 | (189,924) | - |
| 3 | Total | 35,734,688 | (189,924) | 35,544,764 |
| 4 | Accumulated Depr on Retirement Work in Progress | (140,763) | 140,763 | - |
| 5 | Total | $ 35,593,925 | $ (49,161) | $ 35,544,764 |

References:
Column [A]: Cooperative Schedules B-1.0 and C-3.0
Column [B]: Testimony, CSB;
Column [C]: Column [A] + Column [B]

**Trico Electric Cooperative**
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**Schedule CSB-7**

## RATE BASE ADJUSTMENT NO. 4 - CONSUMER DEPOSITS

| | | [A] | [B] | [C] |
|---|---|---|---|---|
| **LINE NO.** | **DESCRIPTION** | **COMPANY AS FILED** | **STAFF ADJUSTMENTS** | **STAFF AS ADJUSTED** |
| 1 | Consumer Deposits | $ 1,124,430 | $ 47,022 | $ 1,171,452 |

References:
*Column* [A]: Cooperative Schedules B-2.0
Column [B]: Column [C] + Column [A]
Column [C]: Testimony, CSB; Cooperative Schedule B-3.0

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**Schedule CSB-8**

**RATE BASE ADJUSTMENT NO. 5 - WORKING CAPITAL**

| | | [A] | [B] | [C] |
|---|---|---|---|---|
| **LINE NO.** | **DESCRIPTION** | **COMPANY AS FILED** | **STAFF ADJUSTMENTS** | **STAFF AS ADJUSTED** |
| 1 | Cash Working Capital | $ - | $ - | $ - |
| 2 | Materials and Supplies | $ 4,978,946 | $ (4,978,946) | $ - |
| 3 | Prepayments | $ 594,308 | $ (594,308) | $ - |
| 4 | **Total Working Capital** | **$ 5,573,254** | **$ (5,573,254)** | **$ -** |

References:
Column [A]: Cooperative Schedules B-1.0 and B-3.0
Column [B]: Column [C] + Column [A]
Column [C]: Testimony, CSB

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Schedule CSB-9

**OPERATING MARGIN - TEST YEAR AND STAFF RECOMMENDED**

| Line No. | DESCRIPTION | [A] COMPANY TEST YEAR AS FILED | [B] STAFF TEST YEAR ADJUSTMENTS | REF Sch CSB-10 Adjustments | [C] STAFF TEST YEAR AS ADJUSTED | [D] STAFF RECOMMENDED CHANGES | [E] STAFF RECOMMENDED |
|---|---|---|---|---|---|---|---|
| | *REVENUES:* | | | | | | |
| 1 | Margin Revenue (Non-Power) | $ 24,102,533 | $ 420,238 | 1 | $ 24,522,771 | $ 6,043,717 | $ 30,566,489 |
| 2 | | | | | | | |
| 3 | Base Cost of Power Revenue | $ 36,352,802 | $ 806,520 | 1,2 | $ 37,159,322 | $ - | $ 37,159,322 |
| 4 | GS4 Power Revenue | $ 1,559,798 | $ - | | $ 1,559,798 | $ - | $ 1,559,798 |
| 5 | Wholesale Power Cost Adjustor (WPCA) | $ 10,755,503 | $ - | | $ 10,755,503 | $ - | $ 10,755,503 |
| 6 | Rounding | $ (1) | $ - | | $ (1) | $ - | $ (1) |
| 7 | Base Cost of Power, GS4, and Adjustor Revenue | $ 48,668,102 | $ 806,520 | | $ 49,474,621 | $ - | $ 49,474,621 |
| 8 | | | | | | | |
| 9 | Total Revenue from Sales of Electricity | $ 72,770,635 | $ 1,226,758 | 1,2 | $ 73,997,393 | $ 6,043,717 | $ 80,041,110 |
| 10 | | | | | | | |
| 11 | Sales for Resale - Other | $ 10,144 | $ - | | $ 10,144 | $ - | $ 10,144 |
| 12 | Other Revenues | $ 1,470,242 | $ - | | $ 1,470,242 | $ - | $ 1,470,242 |
| 13 | **Total Revenues** | **$ 74,251,021** | **$ 1,226,758** | | **$ 75,477,779** | **$ 6,043,717** | **$ 81,521,496** |
| 14 | | | | | | | |
| 15 | *EXPENSES:* | | | | | | |
| 16 | Purchased Power | $ 48,668,102 | $ 806,519 | 1,2 | $ 49,474,621 | $ - | $ 49,474,621 |
| 17 | Transmission Operation and Maintenance | $ 2,117 | $ 30 | 1,5,6 | $ 2,147 | $ - | $ 2,147 |
| 18 | Distribution - Operations | $ 3,122,117 | $ 22,687 | 1,5,6 | $ 3,144,805 | $ - | $ 3,144,805 |
| 19 | Distribution - Maintenance | $ 1,979,970 | $ 18,766 | 1,5,6 | $ 1,998,737 | $ - | $ 1,998,737 |
| 20 | Consumer Accounting | $ 2,500,269 | $ 27,807 | 1,5,6 | $ 2,528,076 | $ - | $ 2,528,076 |
| 21 | Customer Service | $ 215,083 | $ 1,976 | 1,5,6 | $ 217,059 | $ - | $ 217,059 |
| 22 | Sales | $ 329,894 | $ (3,513) | 5,6 | $ 326,381 | $ - | $ 326,381 |
| 23 | Administrative and General | $ 3,589,387 | $ (388,079) | 3,4,5,6,7 | $ 3,201,308 | $ - | $ 3,201,308 |
| 24 | Depreciation and Amortization | $ 5,736,387 | $ - | | $ 5,736,387 | $ - | $ 5,736,387 |
| 25 | Taxes | $ 2,888,439 | $ (366,736) | 8 | $ 2,521,703 | $ - | $ 2,521,703 |
| 26 | **Total Operating Expenses** | $ 69,031,766 | $ 119,459 | | $ 69,151,225 | $ - | $ 69,151,225 |
| 27 | | | | | | | |
| 28 | **Operating Margin Before Interest on L.T.- Debt** | $ 5,219,254 | $ 1,107,299 | | $ 6,326,553 | $ - | $ 12,370,271 |
| 29 | | | | | | | |
| 30 | ***INTEREST ON LONG-TERM DEBT & OTHER DEDUCTIONS*** | | | | | | |
| 31 | Interest on Long-term Debt | $ 6,744,625 | $ - | | $ 6,744,625 | $ - | $ 6,744,625 |
| 32 | Interest - Other | $ 56,679 | $ - | | $ 56,679 | $ - | $ 56,679 |
| 33 | Other Dedcutions | $ 394,041 | $ - | | $ 394,041 | $ - | $ 394,041 |
| 34 | **Total Interest & Other Deductions** | $ 7,195,345 | $ - | | $ 7,195,345 | $ - | $ 7,195,345 |
| 35 | | | | | | | |
| 36 | ***MARGINS (LOSS) AFTER INTEREST EXPENSE*** | $ (1,976,091) | $ 1,107,299 | | $ (868,792) | $ - | $ 5,174,926 |
| 37 | | | | | | | |
| 38 | ***NON-OPERATING MARGINS*** | | | | | | |
| 39 | Interest Income | $ 161,158 | $ - | | $ 161,158 | $ - | $ 161,158 |
| 40 | Other Margins | $ 12,007 | $ - | | $ 12,007 | $ - | $ 12,007 |
| 41 | G&T Capital Credits | $ 1,950,858 | $ (1,950,858) | 9 | $ - | $ - | $ - |
| 42 | Other Capital Credits | $ 107,578 | $ (36,108) | 9 | $ 71,470 | $ - | $ 71,470 |
| 43 | **Total Non-Operating Margins** | $ 2,231,601 | $ (1,986,966) | | $ 244,635 | $ - | $ 244,635 |
| 44 | | | | | | | |
| 45 | ***EXTRAORDINARY ITEMS*** | $ - | $ - | | $ - | $ - | $ - |
| 46 | | | | | | | |
| 47 | ***NET MARGINS (LOSS)*** | $ 255,510 | $ (879,667) | | $ (624,157) | $ - | $ 5,419,561 |

References:
Column (A): Cooperative Schedule A
Column (B): Schedule CSB-10
Column (C): Column (A) + Column (B)
Column (D): Schedule CSB-1
Column (E): Column (C) + Column (D)

**Trico Electric Cooperative**
**Docket No. E-01461A-08-0430**
**Test Year Ended December 31, 2007**

**SUMMARY OF OPERATING MARGIN ADJUSTMENTS - TEST YEAR**

| LINE NO. | DESCRIPTION | [A] COMPANY AS FILED | [B] ADJ #1 Revenue and Expense Annualizations Ref: Sch CSB-11 | [C] ADJ #2 Base Cost of Power and Wholesale Pwr Cost Adjustor Ref: Sch CSB-12 | [D] ADJ #3 Demand Side Management Expenses Ref: Sch CSB-13 | [E] ADJ #4 Normalized Administrative & General Exp Ref: Sch CSB-14 | [F] ADJ #5 Employee Payroll and Payroll Taxes Ref: Sch CSB-15 | [G] ADJ #6 Year-End Bonuses Ref: Sch CSB-16 | [H] ADJ #7 Advertising and Lobbying Expenses Ref: Sch CSB-17 |
|---|---|---|---|---|---|---|---|---|---|
| | ***REVENUES:*** | | | | | | | | |
| 1 | Margin Revenue (Non-Power) | $ 24,102,533 | $ 420,238 | $ - | $ - | $ - | $ - | $ - | $ - |
| 2 | | | | | | | | | |
| 3 | Base Cost of Power Revenue | $ 36,352,802 | $ 550,706 | $ 255,813 | $ - | $ - | $ - | $ - | $ - |
| 4 | GS4 Power Revenue | 1,559,798 | - | - | - | - | - | - | - |
| 5 | Wholesale Power Cost Adjustor (WPCA) | 10,755,503 | - | - | - | - | - | - | - |
| 6 | Rounding | (1) | - | - | - | - | - | - | - |
| 7 | Base Cost of Power, GS4, and Adjustor Revenue | $ 48,668,102 | $ 550,706 | $ 255,813 | $ - | $ - | $ - | $ - | $ - |
| 8 | | | | | | | | | |
| 9 | Total Revenue from *Sales of Electricity* | $ 72,770,635 | $ 970,945 | $ 255,813 | $ - | $ - | $ - | $ - | $ - |
| 10 | | | | | | | | | |
| 11 | Sales for Resale - Other | $ 10,144 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 12 | Other Revenues | $ 1,470,242 | - | - | - | - | - | - | - |
| 13 | **Total Revenues** | **$ 74,251,021** | **$ 970,945** | **$ 255,813** | $ - | $ - | $ - | $ - | $ - |
| 14 | | | | | | | | | |
| 15 | ***OPERATING EXPENSES:*** | | | | | | | | |
| 16 | Purchased Power | $ 48,668,102 | $ 550,706 | $ 255,813 | $ - | $ - | $ - | $ - | $ - |
| 17 | Transmission Operation and Maintenance | 2,117 | 47 | - | - | - | (13) | (4) | - |
| 18 | Distribution - Operations | 3,122,117 | 69,019 | | - | - | (40,826) | (5,505) | - |
| 19 | Distribution - Maintenance | 1,979,970 | 43,770 | - | - | - | (21,512) | (3,491) | - |
| 20 | Consumer Accounting | 2,500,269 | 55,272 | - | - | - | (23,056) | (4,409) | - |
| 21 | Customer Service | 215,083 | 4,755 | - | - | - | (2,399) | (379) | - |
| 22 | Sales | 329,894 | - | - | - | - | (2,931) | (582) | - |
| 23 | Administrative and General | 3,589,387 | - | - | (115,828) | (105,922) | (28,538) | (6,329) | (131,462) |
| 24 | Depreciation and Amortization | 5,736,387 | - | - | - | - | - | - | - |
| 25 | Taxes | 2,888,439 | - | - | - | - | - | - | - |
| 26 | **Total Operating Expenses** | **$ 69,031,766** | **$ 723,570** | **$ 255,813** | **$ (115,828)** | **$ (105,922)** | **$ (119,277)** | **$ (20,700)** | **$ (131,462)** |
| 27 | | | | | | | | | |
| 28 | **Operating Margin Before Interest on L.T.- Debt** | **$ 5,219,254** | **$ 247,375** | **$ 0** | **$ 115,828** | **$ 105,922** | **$ 119,277** | **$ 20,700** | **$ 131,462** |
| 29 | | | | | | | | | |
| 30 | ***INTEREST ON LONG-TERM DEBT & OTHER DEDUCTIONS*** | | | | | | | | |
| 31 | Interest on Long-term Debt | $ 6,744,625 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 32 | Interest - Other | $ 56,679 | - | - | - | - | - | - | - |
| 33 | Other Dedcutions | 394,041 | - | - | - | - | - | - | - |
| 34 | **Total Interest & Other Deductions** | $ 7,195,345 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 35 | | | | | | | | | |
| 36 | ***MARGINS (LOSS) AFTER INTEREST EXPENSE*** | **$ (1,976,091)** | **$ 247,375** | **$ 0** | **$ 115,828** | **$ 105,922** | **$ 119,277** | **$ 20,700** | **$ 131,462** |
| 37 | | | | | | | | | |
| 38 | ***NON-OPERATING MARGINS*** | | | | | | | | |
| 39 | Interest Income | $ 161,158 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 40 | Other Margins | 12,007 | | | | | | | |
| 41 | G&T Capital Credits | 1,950,858 | | | | | | | |
| 42 | Other Capital Credits | 107,578 | - | - | - | - | - | - | - |
| 43 | **Total Non-Operating Margins** | $ 2,231,601 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 44 | | | | | | | | | |
| 45 | ***EXTRAORDINARY ITEMS*** | $ - | - | - | - | - | - | - | - |
| 46 | | | | | | | | | |
| 47 | ***NET MARGINS (LOSS)*** | $ 255,510 | $ 247,375 | $ 0 | $ 115,828 | $ 105,922 | $ 119,277 | $ 20,700 | $ 131,462 |

| LINE NO. | DESCRIPTION | [I] ADJ #8 Property Taxes Ref: Sch CSB-18 | [J] ADJ #9 Capital Credits Ref: Sch CSB-19 | [K] STAFF ADJUSTED |
|---|---|---|---|---|
| | ***REVENUES:*** | | | |
| 1 | Margin Revenue (Non-Power) | $ - | $ - | $ 24,522,771 |
| 2 | | | | |
| 3 | Base Cost of Power Revenue | $ - | $ - | $ 37,159,322 |
| 4 | GS4 Power Revenue | - | - | 1,559,798 |
| 5 | Wholesale Power Cost Adjustor (WPCA) | - | - | 10,755,503 |
| 6 | Rounding | - | - | (1) |
| 7 | Base Cost of Power, GS4, and Adjustor Revenue | $ - | $ - | $ 49,474,621 |
| 8 | | | | |
| 9 | Total Revenue from Sales of Electricity | $ - | $ - | $ 73,997,393 |
| 10 | | | | |
| 11 | Sales for Resale - Other | $ - | $ - | $ 10,144 |
| 12 | Other Revenues | - | - | 1,470,242 |
| 13 | **Total Revenues** | $ - | # $ - | $ 75,477,779 |
| 14 | | | | |
| 15 | ***OPERATING EXPENSES:*** | | | |
| 16 | Purchased Power | $ - | $ - | $ 49,474,621 |
| 17 | Transmission Operation and Maintenance | - | - | 2,147 |
| 18 | Distribution - Operations | - | - | 3,144,805 |
| 19 | Distribution - Maintenance | - | - | 1,998,737 |
| 20 | Consumer Accounting | - | - | 2,528,076 |
| 21 | Customer Service | - | - | 217,059 |
| 22 | Sales | - | - | 326,381 |
| 23 | Administrative and General | - | - | 3,201,308 |
| 24 | Depreciation and Amortization | - | - | 5,736,387 |
| 25 | Taxes | (366,736) | - | 2,521,703 |
| 26 | **Total Operating Expenses** | **$ (366,736)** | **$ -** | **$ 69,151,225** |
| 27 | | | | |
| 28 | **Operating Margin Before Interest on L.T.- Debt** | **$ 366,736** | **$ -** | **$ 6,326,553** |
| 29 | | | | |
| 30 | ***INTEREST ON LONG-TERM DEBT & OTHER DEDUCTIONS*** | | | |
| 31 | Interest on Long-term Debt | $ - | $ - | $ 6,744,625 |
| 32 | Interest - Other | - | - | 56,679 |
| 33 | Other Dedcutions | - | - | 394,041 |
| 34 | **Total Interest & Other Deductions** | $ - | $ - | $ 7,195,345 |
| 35 | | | | |
| 36 | ***MARGINS (LOSS) AFTER INTERST EXPENSE*** | **$ 366,736** | **$ -** | **$ (868,792)** |
| 37 | | | | |
| 38 | ***NON-OPERATING MARGINS*** | | | |
| 39 | Interest Income | $ - | $ - | $ 161,158 |
| 40 | Other Margins | | - | 12,007 |
| 41 | G&T Capital Credits | | (1,950,858) | - |
| 42 | Other Capital Credits | - | (36,108) | 71,470 |
| 43 | **Total Non-Operating Margins** | $ - | $ (1,986,966) | $ 244,635 |
| 44 | | | | |
| 45 | ***EXTRAORDINARY ITEMS*** | - | - | - |
| 46 | | | | |
| 47 | ***NET MARGINS (LOSS)*** | $ 366,736 | $ (1,986,966) | $ (624,157) |

**Trico Electric Cooperative**
**Docket No. E-01461A-08-0430**
**Test Year Ended December 31, 2007**



## OPERATING MARGIN ADJUSTMENT NO. 1 - REVENUE AND EXPENSE ANNUALIZATIONS

| LINE NO. | DESCRIPTION | [A] COMPANY AS FILED | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|
| 1 | Total Margin Revenues | $ 24,102,533 | $ 420,238 | $ 24,522,771 |
| 2 | Base Cost of Power Revenue | $ 48,668,102 | $ 550,706 | $ 49,218,808 |
| 3 | **Revenue Annualization Adjustment (Sch CSB-11, Page 2)** | $ 72,770,635 | **$ 970,945** | $ 73,741,579 |
| 4 | | | | |
| 5 | Purchased Power | $ 48,668,102 | $ 550,706 | $ 49,218,808 |
| 6 | Transmission - Operation and Maintenance | $ 2,117 | $ 47 | $ 2,164 |
| 7 | Distribution - Operations | $ 3,122,117 | $ 69,019 | $ 3,191,137 |
| 8 | Distribution - Maintenance | $ 1,979,970 | $ 43,770 | $ 2,023,741 |
| 9 | Customer Accounting | $ 2,500,269 | $ 55,272 | $ 2,555,541 |
| 10 | Customer Service | $ 215,083 | $ 4,755 | $ 219,838 |
| 11 | **Expense Annualization Adjustment** | $ 56,487,659 | **$ 723,570** | $ 57,211,229 |
| 12 | | | | |
| 13 | **Operating Margin** | **$ 16,282,975** | **$ 247,375** | **$ 16,530,350** |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |

| LINE NO. | | | |
|---|---|---|---|
| 17 | **Calculation of Base Cost of Power and Purchased Power Adjustments** | | |
| 18 | | | |
| 19 | Additional kWh's Due To Annualization | 8,786,000 | From Sch CSB-11, Page 2, Col C, Line 28 |
| 20 | Base Cost of Power | 0.06268 | |
| 21 | | 550,706.45 | |
| 22 | | | |
| 23 | | | |

| LINE NO. | | | | |
|---|---|---|---|---|
| 24 | **Calculation of Variable Expense Adjustments** | | | |
| 25 | **Excluding Purchased Power** | | | |
| 26 | | | **2007** | **Adjustment** |
| 27 | **Description** | **Amount** | **Growth Rate** | **to Expenses** |
| 28 | Transmission - Operation and Maintenance | $ 2,117 | 2.2107% | $ 47 |
| 29 | Distribution - Operations | $ 3,122,117 | 2.2107% | $ 69,019 |
| 30 | Distribution - Maintenance | $ 1,979,970 | 2.2107% | $ 43,770 |
| 31 | Customer Accounting | $ 2,500,269 | 2.2107% | $ 55,272 |
| 32 | Customer Service | $ 215,083 | 2.2107% | $ 4,755 |
| 33 | Total Variable Expenses Excluding Purchased Power | $ 7,819,557 | | $ 172,864 |
| 34 | | | | |
| 35 | | | | |
| 36 | | | | |

| LINE NO. | Calculation of Annualization Factor | |
|---|---|---|
| 37 | | |
| 38 | | |
| 39 | | |
| 40 | 38,119 | 2007 Year-end Total Customer Count per Form 7 |
| 41 | 36,505 | 2006 Year-end Total Customer Count per Form 7 |
| 42 | 1,614 | Increase in Total Customer Count |
| 43 | 4.42% | Growth Rate (Line 42 / Line 41) |
| 44 | | |
| 45 | 2.2107% | Annualization Factor (Line 43 / 2) |

References:
Column A: Schedule CSB-9
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

## OPERATING MARGIN ADJUSTMENT NO. 1 - REVENUE AND EXPENSE ANNUALIZATIONS CONTINUED

**Calculation of Annualized Revenue**

| Line No. | | [A] Residential Sales RS-1 | [B] General Service 1 | [C] Total for RS-1 and Gen Serv 1 | |
|---|---|---|---|---|---|
| 1 | End of Year Customer Count Per Form 7 | 36,302 | 1,742 | | |
| 2 | Beginning of Year Customer Count Per Form 7 | 34,871 | 1,562 | | |
| 3 | Increase in Customers | 1,431 | 180 | | |
| 4 | Divided by: | 2 | 2 | | |
| 5 | Average Number of Monthly Bills | 716 | 90 | | |
| 6 | Multiplied by 12 Months | 12 | 12 | | |
| 7 | **Additional Bills Due To Annualization** | **8,586** | **1,080** | **9,666** | Bills |
| 8 | Multiplied by Monthly Customer Charge | $ 12.00 | $ 15.00 | | |
| 9 | **Additional Customer Charge Revenue Due to Annualization** | **$ 103,032** | **$ 16,200** | **$ 119,232** | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | Total kWh's for RS-1 Per Coop | 374,399,081 | 9,189,901 | | |
| 13 | Divided by total RS-1 Bills Per Coop | 405,747 | 11,496 | | |
| 14 | Average Number of kWh's Per Bill Per Month | 923 | 799 | | |
| 15 | Multiplied By Total Additional Bills | 8,586 | 1,080 | | |
| 16 | **Additional kWh's Due To Annualization** | **7,922,648** | **863,352** | **8,786,000** | kWh's |
| 17 | kWh Charge | $0.09602 | $0.10538 | | |
| 18 | **Additional kWh Revenue Due to Annualization** | **$ 760,733** | **$ 90,980** | **$ 851,713** | |
| 19 | | | | | |
| 20 | **Total Revenue** | **$ 863,765** | **$ 107,180** | **$ 970,945** | |
| 21 | Less: Base Cost of Power Revenue: | (496,592) | (54,115) | (550,706) | |
| 22 | | 367,173 | 53,065 | 420,238 | |
| 23 | | | | | |
| 24 | | | | | |
| 25 | | **Calculation of the Base Cost of Power Revenue** | | | |
| 26 | Additional kWh's Due To Annualization | 7,922,648 | 863,352 | | |
| 27 | Multiplied by the Base Cost of Power | $0.06268 | $0.06268 | | |
| 28 | | $ 496,592 | $ 54,115 | $ 550,706 | |

Trico Electric Cooperative
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Schedule CSB-12

**OPERATING MARGIN ADJUSTMENT NO. 2 - POWER REVENUE AND WHOLESALE POWER COST ADJUSTOR**

| LINE NO. | DESCRIPTION | [A] COMPANY AS FILED | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|
| 1 | ***Revenues*** | | | |
| 2 | Base Cost of Power Revenue ("BCOP") | $ 36,352,802 | $ - | $ 36,352,802 |
| 3 | GS4 Power Revenue | 1,559,798 | - | 1,559,798 |
| 4 | Base Cost of Power & GS4 Power Revenue Per Coop | $ 37,912,600 | $ - | $ 37,912,600 |
| 5 | To Match Coop Power Rev to Coop Proposed Power Exp | - | 10,755,502 | 10,755,502 |
| 6 | Total Power Revenue | $ 37,912,600 | $ 10,755,502 | $ 48,668,102 |
| 7 | To Increase Power Rev to Staff's Recommended Pur Pwr | - | 255,813 | 255,813 |
| 8 | | $ 37,912,600 | $ 11,011,315 | $ 48,923,915 |
| 9 | To Eliminate Wholesale Power Cost Adjustor ("WPCA") | 10,755,503 | (10,755,503) | - |
| 10 | Rounding | (1) | 1 | - |
| 11 | **Total Base Cost of Power, GS4 and WPCA Revenue** | **$ 48,668,102** | **$ 255,813** | **$ 48,923,915** |
| 12 | ***Expenses*** | | | |
| 13 | **Total Purchased Power Expense** | **$ 48,668,102** | **$ 255,813** | **$ 48,923,915** |
| 14 | **Operating Margin (Line 11 - Line 13)** | **$ (0)** | **$ 0** | **$ 0** |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | Current Base Cost of Power Revenue | | |
| 19 | Test Year Sales (In kWhs) | 579,974,501 | - | 579,974,501 |
| 20 | Multiplied by: Base Cost of Power per kWh | 0.062680000 | - | 0.062680000 |
| 21 | Total Base Cost of Power | $ 36,352,802 | $ - | $ 36,352,802 |
| 22 | | | | |
| 23 | | Current GS4 Power Revenue | | |
| 24 | | 25,325,709 | - | 25,325,709 |
| 25 | Multiplied by: GS4 Average Rate during Test Year | 0.061589510 | - | 0.061589510 |
| 26 | Total Base Cost of Power | $ 1,559,798 | $ - | $ 1,559,798 |
| 27 | | | | |
| 28 | **Total Current Power Revenue** | **$ 37,912,600** | **$ -** | **$ 37,912,600** |
| 29 | | | | |
| 30 | | | | |
| 31 | | | | |
| 32 | | Proposed Base Cost of Power Revenue | | |
| 33 | Test Year Sales (In kWhs) | 579,974,501 | - | 579,974,501 |
| 34 | Multiplied by: Base Cost of Power per kWh | 0.081225000 | 0.0004130 | 0.081638000 |
| 35 | Total Base Cost of Power | $ 47,108,429 | $ 239,529 | $ 47,347,958 |
| 36 | | | | |
| 37 | | Proposed GS4 Power Revenue | | |
| 38 | | 25,325,709 | - | 25,325,709 |
| 39 | Multiplied by: GS4 Average Rate during Test Year | 0.061589510 | 0.0006356 | 0.062225109 |
| 40 | Total Base Cost of Power | $ 1,559,798 | $ 16,097 | $ 1,575,895 |
| 41 | | | | |
| 42 | | $ 48,668,227 | $ 255,626 | $ 48,923,853 |
| 43 | Rounding | (125) | 187 | 62 |
| 44 | **Total Proposed/Recommended Power Revenue (L35 +L40)** | **$ 48,668,102** | **$ 255,813** | **$ 48,923,915** |

References:

Column A: Cooperative Schedules A-1, N-3.1
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

Trico Electric Cooperative
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Schedule CSB-13

## OPERATING MARGIN ADJUSTMENT NO. 3 - DSM EXPENSES

| LINE NO. | Acct. No. | DESCRIPTION | [A] COMPANY AS FILED CSB 5-2 | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|---|
| 1 | 909.06 | Residential Audit Material | $ 1,675 | $ (1,675) | $ - |
| 2 | 909.01 | Classroom Connection | $ 2,548 | $ (2,548) | $ - |
| 3 | 908.08 | C & I Auditing/Consulting | $ 5,000 | $ (5,000) | $ - |
| 4 | 908.00 | Conservation Workshops | $ 2,000 | $ (2,000) | $ - |
| 5 | 908.00 | Residential Energy Auditing Workshop | $ 6,000 | $ (6,000) | $ - |
| 6 | 912.20 | Operation Cool Shade | $ 22,075 | $ (22,075) | $ - |
| 7 | 426.10 | Pima County Weatherization | $ 4,100 | $ (4,100) | $ - |
| 8 | 903.00 | Estimated Labor for Member Education | $ 72,430 | $ (72,430) | $ - |
| 9 | | TOTAL | $ 115,828 | $ (115,828) | $ - |

References:
Column A: Cooperative Data Request Response CSB 3.9
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

**Trico Electric Cooperative**
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**Schedule CSB-14**

## OPERATING MARGIN ADJUSTMENT NO. 4 - NORMALIZED ADMIN & GENERAL EXPENSES

| | | [A] | [B] | [C] |
|---|---|---|---|---|
| **LINE NO.** | **DESCRIPTION** | **COMPANY AS FILED CSB 3.13** | **STAFF ADJUSTMENTS** | **STAFF AS ADJUSTED** |
| 1 | Administrative and General Expenses | $ 2,221,143 | $ - | $ 2,221,143 |
| 2 | Administrative and General Salaries | 1,368,244 | (105,922) | 1,262,322 |
| 3 | Total Administrative and General Expenses | $ 3,589,387 | $ (105,922) | $ 3,483,465 |

| | |
|---|---|
| 2006 Administrative and General Expenses | $ 1,156,400 |
| 2007 Administrative and General Expenses | $ 1,368,244 |
| | $ 2,524,644 |
| Divided by | 2 |
| | $ 1,262,322 |

References:
Column A: Cooperative Schedule A-1
Column B: Testimony, CSB; Data Request Response CSB 3.2
Column C: Column [A] + Column [B]

**Trico Electric Cooperative**
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## OPERATING MARGIN ADJUSTMENT NO. 5 - EMPLOYEE PAYROLL AND PAYROLL TAXES

| | | [A] | [B] | [C] |
|---|---|---|---|---|
| **LINE NO.** | **DESCRIPTION** | **COMPANY AS FILED** | **STAFF ADJUSTMENTS** | **STAFF AS ADJUSTED** |
| 1 | Full-Time Salaries and Wages | $ 7,840,320 | $ - | $ 7,840,320 |
| 2 | Part-time Wages | 188,643 | (119,277) | 69,366 |
| 3 | | $ 8,028,963 | (119,277) | 7,909,686 |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | **Allocation of Staff's Adjustment** | | |
| 9 | Transmission Operation and Maintenance | 0.01% | $ (119,277) | $ (13) |
| 10 | Distribution - Operations | 34.23% | (119,277) | (40,826) |
| 11 | Distribution - Maintenance | 18.04% | (119,277) | (21,512) |
| 12 | Consumer Accounting | 19.33% | (119,277) | (23,056) |
| 13 | Customer Service | 2.01% | (119,277) | (2,399) |
| 14 | Sales | 2.46% | (119,277) | (2,931) |
| 15 | Administrative and General | 23.93% | (119,277) | (28,538) |
| 16 | | 100.00% | | **$ (119,277)** |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |

| LINE NO. | | *Payroll* | *FIC* | *Medicare* | *Fed Unemploy* | *State Unemploy* | *Total* |
|---|---|---|---|---|---|---|---|
| 21 | | *From CSB-15, P. 2* | *From CSB-15, P. 2* | *From CSB-15, P. 2* | *From CSB-15, P. 2* | *From CSB-15, P. 2* | *Payroll &* |
| 22 | | *Col C, Line 19* | *Col F, Line 47* | *Col G, Line 47* | *Col H, Line 47* | *Col I, Line 47* | *Payroll* |
| 23 | | $ 64,038 | $ 3,970 | $ 929 | 216 | 213 | *Taxes* |
| 24 | Transmission Oper & Maint | $ 7 | $ 0 | $ 0 | $ 0 | $ 0 | $ 8 |
| 25 | Distribution - Operations | 21,919 | 1,359 | 318 | 74 | 73 | 23,743 |
| 26 | Distribution - Maintenance | 11,550 | 716 | 167 | 39 | 38 | 12,511 |
| 27 | Consumer Accounting | 12,379 | 767 | 179 | 42 | 41 | 13,408 |
| 28 | Customer Service | 1,288 | 80 | 19 | 4 | 4 | 1,395 |
| 29 | Sales | 1,574 | 98 | 23 | 5 | 5 | 1,705 |
| 30 | Administrative and General | 15,322 | 950 | 222 | 52 | 51 | 16,596 |
| 31 | | $ 64,038 | $ 3,970 | $ 929 | $ 216 | $ 213 | $ 69,366 |
| 32 | | | | | | | |
| 33 | | | | | | | |

The header row of the table above is printed on line 20.

| LINE NO. | | *Payroll* | *Payroll Taxes* | *Total* | *Percent* |
|---|---|---|---|---|---|
| 35 | | *Coop Sch A-3.1, P. 2* | *Coop Sch A-3.3, P. 2* | *Payroll & Taxes* | *to Total* |
| 36 | Transmission Oper & Maint | $ 26 | $ 4 | $ 30 | 0.01% |
| 37 | Distribution - Operations | 79,534 | 13,295 | 92,829 | 34.23% |
| 38 | Distribution - Maintenance | 42,120 | 6,794 | 48,914 | 18.04% |
| 39 | Consumer Accounting | 45,015 | 7,409 | 52,424 | 19.33% |
| 40 | Customer Service | 4,680 | 776 | 5,456 | 2.01% |
| 41 | Sales | 5,737 | 928 | 6,665 | 2.46% |
| 42 | Administrative and General | 56,138 | 8,750 | 64,889 | 23.93% |
| 43 | | $ 233,250 | $ 37,955 | **$ 271,205** | 100.00% |

The header row of the table above is printed on line 34.

References:
Column A: Cooperative Schedule A-6.0, Cooperative provided workpaper entitled "WK_PAYROLL"
Column B: Testimony, CSB; Data Request Response CSB 1.36
Column C: Column [A] + Column [B]

## Calculation of Staff Adjusted Payroll Expense and Payroll Taxes

| | Payroll Expense Calculation | | |
|---|---|---|---|
| Line No. | Status | Annual Number of Hours Worked | Annual Wages |
| 1 | Part-time | 1,048 | $ 16,841 |
| 2 | Part-time | 400 | 4,740 |
| 3 | Part-time | 1336 | 19,225 |
| 4 | Part-time | 860 | 14,921 |
| 5 | Part-time | 400 | 7,316 |
| 6 | Part-time | 1000 | 11,850 |
| 7 | Part-time | 400 | 4,740 |
| 8 | Part-time | 1664 | 22,897 |
| 9 | Part-time | 860 | 14,921 |
| 10 | Part-time | 600 | 7,110 |
| 11 | Part-time | 1834 | 41,448 |
| 12 | Part-time | 1910 | 22,634 |
| 13 | | | $ 188,643 |
| 14 | Divided by 12 employees | | 12 |
| 15 | Cost per employee | | $ 15,720 |
| 16 | Multiplied by 6 employees | | 6 |
| 17 | | | $ 94,321 |
| 18 | Payroll Expensed Ratio | | x 67.893% |
| 19 | Staff's Payroll Expense | | $ 64,038 |
| 20 | | | |
| 21 | | | |
| 22 | | | |

| | Payroll Taxes Calculation | | | | | |
|---|---|---|---|---|---|---|
| 23 | | | | | | |
| 24–26 | Status | Annual Number of Hours Worked | FICA Wages | Medicare Wages | Federal Unemployment Wages | State Unemployment Wages |
| 27 | Part-time | 1,048 | $ 16,841 | $ 16,841 | $ 7,000 | $ 7,000 |
| 28 | Part-time | 400 | 4,740 | 4,740 | 4,740 | 4,740 |
| 29 | Part-time | 1336 | 19,225 | 19,225 | 7,000 | 7,000 |
| 30 | Part-time | 860 | 14,921 | 14,921 | 7,000 | 7,000 |
| 31 | Part-time | 400 | 7,316 | 7,316 | 7,000 | 7,000 |
| 32 | Part-time | 1000 | 11,850 | 11,850 | 7,000 | 7,000 |
| 33 | Part-time | 400 | 4,740 | 4,740 | 4,740 | 4,740 |
| 34 | Part-time | 1664 | 22,897 | 22,897 | 7,000 | 7,000 |
| 35 | Part-time | 860 | 14,921 | 14,921 | 7,000 | 7,000 |
| 36 | Part-time | 600 | 7,110 | 7,110 | 7,000 | 7,000 |
| 37 | Part-time | 1834 | 41,448 | 41,448 | 7,000 | 7,000 |
| 38 | Part-time | 1910 | 22,634 | 22,634 | 7,000 | 7,000 |
| 39 | | | $ 188,643 | $ 188,643 | $ 79,480 | $ 79,480 |
| 40 | Divided by 12 employees | | 12 | 12 | 12 | 12 |
| 41 | Cost per employee | | $ 15,720 | $ 15,720 | $ 6,623 | $ 6,623 |
| 42 | Multiplied by 6 employees | | 6 | 6 | 6 | 6 |
| 43 | | | $ 94,321 | $ 94,321 | $ 39,740 | $ 39,740 |
| 44 | Multiplied by payroll tax rate | | x 6.20% | x 1.45% | x 0.80% | x 0.79% |
| 45 | | | $ 5,847.93 | $ 1,367.66 | $ 317.92 | $ 313.95 |
| 46 | Payroll Expensed Ratio | | x 67.893% | x 67.893% | x 67.893% | x 67.893% |
| 47 | Total | | $ 3,970 | $ 929 | $ 216 | $ 213 |

Trico Electric Cooperative
Docket No. E-01461A-08-0430
Test Year Ended December 31, 2007

Schedule CSB-16

## OPERATING MARGIN ADJUSTMENT NO. 6 - YEAR-END BONUSES

| LINE NO. | DESCRIPTION | [A] COMPANY AS FILED | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|
| 1 | Full-Time Salaries and Wages | $ 7,997,787 | $ - | $ 7,997,787 |
| 2 | Year-end Bonuses | 20,700 | (20,700) | - |
| 3 | | $ 8,018,487 | (20,700) | 7,997,787 |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | Allocation of Staff's Adjustment | | |
| 9 | Transmission Operation and Maintenance | 0.02% | $ (20,700) | $ (4) |
| 10 | Distribution - Operations | 26.60% | (20,700) | (5,505) |
| 11 | Distribution - Maintenance | 16.87% | (20,700) | (3,491) |
| 12 | Consumer Accounting | 21.30% | (20,700) | (4,409) |
| 13 | Customer Service | 1.83% | (20,700) | (379) |
| 14 | Sales | 2.81% | (20,700) | (582) |
| 15 | Administrative and General | 30.58% | (20,700) | (6,329) |
| 16 | | 100.00% | | $ **(20,700)** |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21-22 | | | Per Coop Sch A-1.0 | Percent to Total |
| 23 | | Transmission Oper & Maint | $ 2,117 | 0.02% |
| 24 | | Distribution - Operations | 3,122,117 | 26.60% |
| 25 | | Distribution - Maintenance | 1,979,970 | 16.87% |
| 26 | | Consumer Accounting | 2,500,269 | 21.30% |
| 27 | | Customer Service | 215,083 | 1.83% |
| 28 | | Sales | 329,894 | 2.81% |
| 29 | | Administrative and General | 3,589,387 | 30.58% |
| 30 | | | $ 11,738,838 | 100.00% |

References:
Column A: Cooperative Schedule A-1.0, Cooperative provided workpaper entitled "WK_PAYROLL"
Column B: Testimony, CSB; Data Request Response CSB 1.34
Column C: Column [A] + Column [B]

Trico Electric Cooperative
Docket No. E-01461A-08-0430
Test Year Ended December 31, 2007

Schedule CSB-17

## OPERATING MARGIN ADJUSTMENT NO. 7 - ADVERTISING AND LOBBYING EXPENSES

| LINE NO. | DESCRIPTION | | [A] COMPANY AS FILED | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|---|
| 1 | Advertising | | $ 113,715 | $ (113,715) | $ - |
| 2 | Lobbying | | 17,746 | (17,746) | - |
| 3 | | | $ 131,462 | $ (131,462) | $ - |
| 4 | DATA | | | | |
| 5 | REQUEST | | | | |
| 6 | RESPONSE | **Advertising** | | | |
| 7 | CSB 1.46 | Image Enhancement Advertising | $ 103,606 | | |
| 8 | CSB 1.46 | Member Advisory Council | 3,705 | | |
| 9 | CSB 1.46 | Washington Youth Tour | 6,405 | | |
| 10 | | Subtotal | $ 113,715 | | |
| 11 | | **Lobbying** | | | |
| 12 | CSB 1.40 | Grand Canyon State Electrica Cooperative Association - Lobbying | $ 10,948 | | |
| 13 | CSB 1.40 | National Rural Electrical Cooperative Association - Lobbying | 4,051 | | |
| 14 | CSB 1.39 | Employee Lobbying expenses | 331 | | |
| 15 | CSB 1.39 | Employee Lobbying expenses | 2,416 | | |
| 16 | | Subtotal | $ 17,746 | | |
| 17 | | | | | |
| 18 | | Total (Line 10 + Line 16) | $ 131,462 | | |

References:
Column A: Cooperative Data Request Response CSB 1.39, 1.40, 1.46
Column B: Testimony, CSB
Column C: Column [A] + Column [B]

Trico Electric Cooperative
Docket No. E-01461A-08-0430
Test Year Ended December 31, 2007

Schedule CSB-18

OPERATING MARGIN ADJUSTMENT NO. 8 - PROPERTY TAXES

| LINE NO. | DESCRIPTION | [A] COMPANY AS FILED CSB 5-2 | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|
| 1 | Property Taxes | $ 2,888,439 | (366,736) | $ 2,521,703 |

References:
Column A: Cooperative Schedule A-1.0
Column B: Testimony, CSB; Data Request Response CSB 3.5
Column C: Column [A] + Column [B]

**Trico Electric Cooperative**
**Docket No. E-01461A-08-0430**
**Test Year Ended December 31, 2007**

**Schedule CSB-19**

## OPERATING MARGIN ADJUSTMENT NO. 9 - CAPITAL CREDITS

| LINE NO. | DESCRIPTION | [A] COMPANY AS FILED | [B] STAFF ADJUSTMENTS | [C] STAFF AS ADJUSTED |
|---|---|---|---|---|
| 1 | G&T Capital Credits | $ 1,950,858 | $ (1,950,858) | $ - |
| 2 | Other Capital Credits | 107,578 | (36,108) | 71,470 |
| 3 | Total | $ 2,058,436 | $ (1,986,966) | $ 71,470 |

References:
Column A: Cooperative Schedule A-1
Column B: Testimony, CSB; CSB 3.15, CSB 3.16
Column C: Column [A] + Column [B]

**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., AN ARIZONA NONPROFIT CORPORATION, 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 |

DIRECT

TESTIMONY

OF

J. JEFFREY PASQUINELLI

PUBLIC UTILITIES ANALYST

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 27, 2009

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

Mr. Pasquinelli's testimony makes the following recommendation with respect to power costs:

- The base cost of purchased power should take account of the most recent purchase power expenses in the Test Year.

This means that actual test year costs should be adjusted to reflect costs occurring at the end of the test year.

Mr. Pasquinelli's testimony makes the following recommendations with respect to Trico Electric Cooperative, Inc.'s ("Trico") Demand Side Management ("DSM"):

- Trico's base power cost should be $0.081638 per kWh.

- Trico should provide complete responses to Staff's data requests regarding Trico's existing DSM programs as soon as possible.

- Trico's DSM data request responses should include, at the minimum, the information set forth in Tables 3 and 4 herein on or before March 9, 2009.

- Trico should file for Commission approval of its new and modified DSM programs as soon as possible.

- Trico's filing for approval of its new and modified DSM programs should include, at a minimum, the information set forth in Tables 3 and 4 herein.

## INTRODUCTION

**Q. Please state your name, occupation, and business address.**

A. My name is Jeffrey Pasquinelli. I am a Utilities Analyst employed under contract by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

**Q. Briefly describe your responsibilities as a Utilities Analyst.**

A. In my capacity as a Staff Utilities Analyst, I perform analyses and provide recommendations to the Commission on rates, costs, energy conservation, DSM, and alternative energy issues.

**Q. Please describe your educational background and professional experience.**

A. I hold a Bachelor of Science degree in Electrical Engineering and a Master's in Business Administration, both from Wayne State University in Detroit, Michigan. I have been an instructor at Wayne State's College of Engineering, and have taught numerous professional training courses. I have been employed for more than 25 years in the rate and regulatory areas of Detroit Edison, Southern California Edison, and Citizens Utilities. I was with the State of Nevada Public Utilities Commission as well. With Detroit Edison, I also worked in the Electrical System Department. I have testified to cost and rate issues before the Arizona, Michigan, and Nevada Commissions, as well as the Federal Energy Regulatory Commission ("FERC"). I am a registered professional engineer in Arizona and Michigan, though I have allowed these registrations to lapse.

I have been employed by ACC Staff since 2007.

**Q. What is the scope of your testimony in this case?**

A. I will address the appropriate base cost of purchased power for Trico, the operation of their purchased power adjustor rate, and I will make recommendations pertaining to Trico's demand side management ("DSM") programs.

## BASE POWER COST AND PURCHASED POWER ADJUSTOR

**Q. What is your recommendation for Trico's base power cost?**

A. Trico's proposed base power cost represents the average cost paid to Arizona Electric Power Cooperative, Inc. ("AEPCO") for power during the test year. To utilize a base power cost in Staff-proposed rates that is more closely aligned with actual cost, Staff recalculated the 2007 power costs using AEPCO's slightly higher wholesale power cost adjustment factor that was in effect at the end of the test year. Table 1 shows the differences with the more recent costs included.

**Table 1**

**TRICO ELECTRIC COOPERATIVE, INC.**
**PROPOSED BASE POWER COST**

| | Trico Proposed | Staff Proposed |
|---|---|---|
| Total Power Cost | 48,668,102 | 48,923,915 |
| Remove GS4 costs | 1,559,798 | 1,575,895 |
| System Remainder | 47,108,304 | 47,348,020 |
| Sales (kWh) | 605,300,210 | 605,300,210 |
| Remove GS4 kWh | 25,325,709 | 25,325,709 |
| Remainder | 579,974,501 | 579,974,501 |
| | | |
| Base cost per kWh Sold | $0.081225 | $0.081638 |

Though Staff recommends the slightly higher base cost, AEPCO's adjustor rate would allow the wholesale rate to follow wholesale power costs so Trico's customers would not necessarily have permanently higher costs. Changes in wholesale costs would flow through to Trico customers through Trico's Wholesale Power Cost Adjustment clause rate ("WPCA").

**Q. Have Trico's WPCA and bank balance operated satisfactorily during the test year?**

A. In general, yes. The WPCA rate ranged from 1.5¢ per kWh to 1.9¢ per kWh during the test year. The ending bank balance was a negative $166,261 in 2007; the monthly balances are not extremely over- or under-recovered, nor are there unusually long periods of consecutive over- or under-recovered months.

## DSM PROGRAMS

**Q. What is Trico's DSM plan?**

A. The DSM programs shown on Table 2 below and on Trico's Exhibit MR-2 are now in operation, and Trico has said it plans to add programs and perhaps change existing programs with a filing later this year. Trico has never filed for Commission approval of these programs.

**Table 2**

**TRICO ELECTRIC COOPERATIVE, INC.**
**EXISTING DSM PROGRAMS**

| | |
|---|---|
| 1. Residential Audit Material | 1,675 |
| 2. Classroom Connection | 2,548 |
| 3. C&I Auditing, consultant | 5,000 |
| 4. Conservation Workshops | 2,000 |
| 5. Residential Energy Audit Workshop | 6,000 |
| 6. Operation Cool Shade | 22,075 |
| 7. Pima County Weatherization | 4,100 |
| 8. Estimated Labor for Member Education | 72,430 |
| Total Cost | $115,828 |

. . .

**Q. How is Trico recovering the costs of its DSM programs?**

A. Trico is paying for its DSM expenses through general tariff revenue. Although Decision No. 68073 authorized a DSM adjustor mechanism for cost recovery, Trico has not implemented the rate because that Decision specified that programs must have been approved by the Commission, and Trico has not yet filed for approval of the existing programs. The Decision stated:

> "Trico should be allowed to recover its costs for ***pre-approved*** Demand Side Management ("DSM") programs through a separate DSM adjustment mechanism which would provide for a separate and specific accounting for ***pre-approved*** DSM costs" [emphasis added].

**Q. Is Trico now seeking Commission approval to begin using the DSM Adjustor rate?**

A. Yes, Trico has asked that its existing DSM programs be approved by the Commission, and that the previously approved DSM Adjustor rate be activated for cost recovery. With existing program costs of $115,828 and sales of 605,300 MWh, the Adjustor rate would add 0.0191356¢ per kWh to a customer's bill. At this time, Staff cannot support Trico's proposal. However, as discussed below, Staff may address this issue in subsequent testimony.

**Q. Why does Staff not support Trico's proposal for recovery of the existing DSM programs?**

A. At this time, Staff cannot support Trico's proposal to implement the DSM adjustor rate because Staff has not completed its evaluation of the cost effectiveness of the existing programs. This evaluation is necessary if Staff is to make recommendations to the Commission for approval of DSM programs.

Staff requires specific, detailed data as shown in Tables 3 and 4 below, in order to effectively analyze the programs, and has issued a discovery request for these data. Upon receipt of a complete response, Staff will perform the economic analysis. Staff will provide its recommendations in subsequent testimony, such as rebuttal or supplemental.

**Q. Should Trico continue its unapproved DSM programs?**

A. Ms. Brown has adjusted Trico's O&M expense to be sure the expenses for the existing DSM programs are not included in Staff's proposed revenue requirement. DSM costs are not a part of Trico's current approved base rates. Trico is free to spend funds on its DSM programs, though it risks a revenue deficiency if the Commission finds the programs not to be cost effective or for other reasons not in the public interest.

Trico's filing for approval of new DSM programs should provide complete information about each program, including, minimally, the information shown on Tables 3 and 4. This is what Staff has requested on discovery for the existing DSM programs.

**Table 3**

**TRICO ELECTRIC COOPERATIVE, INC.**
**INFORMATION TO BE INCLUDED FOR EACH DSM PROGRAM**

| |
|---|
| 1. Complete Program Concept, Rationale, and Description |
| 2. The Target Market for the Program |
| 3. Program Marketing and Communications Strategy |
| 4. Baseline Market Conditions |
| 5. Program Eligibility |
| 6. Program Objectives |
| 7. Products and Services to be Provided Including Costs |
| 8. Administration and Delivery Strategy |
| 9. Program Implementation Schedule |
| 10. Monitoring and Evaluation Plan. |

To enable Staff to analyze the Programs on Benefit/Cost criteria, Trico should provide further information about each program, including at least the data shown here on Table 4.

**Table 4**

**TRICO ELECTRIC COOPERATIVE, INC.**
**DATA REQUIRED FOR DSM EVALUATION**

| |
|---|
| 1. Number of units of DSM expected to be implemented each year. i.e., number of classes held, number of trees planted, number of homes insulated, etc. |
| 2. Useful life of each unit of DSM. |
| 3. Estimated annual energy reduction for each unit of DSM.<br>4. Estimated annual peak demand reduction for each unit of DSM, with estimated coincidence factor. |
| 5. Base year for analysis |
| 6. The year the DSM program is to be implemented |
| 7. Costs and prices of baseline and more efficient products and equipment. |
| 8. Proposed program budget categorized by at least the following:<br>a. Administrative<br>b. Marketing<br>c. Training<br>d. Material and Equipment<br>e. Implementation<br>f. Measurement and Evaluation |
| 9. System average line losses |
| 10. The year that new generation would be added without the DSM program |
| 11. Capacity cost per kW (in base year dollars), and type of new generation to be added without the DSM program. |
| 12. Useful life of new capacity |
| 13. Fixed O&M in base year dollars associated with new generation.<br>14. Hourly marginal costs of existing power supply. |

**Q. Please summarize Staff's Recommendations.**

A. Staff recommends the following for Trico Electric Cooperative, Inc. in this case:

- Trico's base power cost should be $0.081638 per kWh.

- Trico should provide complete responses to Staff's data requests regarding Trico's existing DSM programs as soon as possible.

- Trico's DSM data request responses should include, at the minimum, the information set forth in Tables 3 and 4 herein on or before March 9, 2009.

- Trico should file for Commission approval of its new and modified DSM programs as soon as possible.

- Trico's filing for approval of its new and modified DSM programs should include, at a minimum, the information set forth in Tables 3 and 4 herein.

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

A. Yes, it does.

**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., AN ARIZONA NON-PROFIT CORPORATION, FOR A PERMANENT RATE INCREASE, FOR A DETERMINATION OF THE FAIR VALUE OF THE CORPORATION'S ELECTRIC SYSTEM FOR RATE MAKING PURPOSES, FOR A FINDING OF A JUST AND REASONABLE RATE OF RETURN THEREON AND A JUST AND REASONABLE RETURN, AND FOR APPROVAL OF RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN | ) | DOCKET NO. E-01461A-08-0430 |

DIRECT

TESTIMONY

OF

CANDREA ALLEN

PUBLIC UTILITIES ANALYST

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 27, 2009

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

Staff's testimony contains specific recommendations regarding some of Trico's proposed modifications to its Rules, Regulations, and Line Extension Policies. Staff's testimony also includes recommendations supporting Trico's proposed elimination of free footage for line extensions. In addition, Staff's testimony opposes some of Trico's proposed modifications to its Rules, Regulations, and Line Extension Policies.

## INTRODUCTION

**Q. Please state your name and business address.**

A. My name is Candrea Allen. My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

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

A. In am employed by the Utilities Division ("Staff") of the Arizona Corporation Commission as a Public Utilities Analyst. My duties include evaluation of various utility applications and review of utility tariff filings.

**Q. As part of your employment responsibilities, were you assigned to review matters contained in Docket No. E-01461A-08-0430?**

A. Yes.

**Q. Please describe your educational background and work experience.**

A. I have a Bachelor of Arts from the University of Oklahoma. I have been employed by the Arizona Corporation Commission for over two years.

**Q. What is the purpose of your testimony in this case?**

A. My testimony provides Staff's recommendations regarding the Rules, Regulations, and Line Extension Policies for Trico Electric Cooperative, Inc. ("Trico").

## RULES, REGULATIONS, AND LINE EXTENSION POLICIES

**Q. Has Trico proposed any modifications to its Rules, Regulations, and Line Extension Policies?**

A. Yes. Trico has proposed several modifications to its rules, regulations, and line extension policies. Many of the changes proposed by Trico are substantive, but some of the proposed changes are merely clarifications to its rules, regulations, and line extension policies. The majority of Trico's substantive modifications appear in Part 2 Line Extensions of the Rules, Regulations, and Line Extension Policies.

**Q. Does Staff support Trico's proposed elimination of its free footage for line extensions?**

**A.** Yes. Currently, Trico's Rules, Regulations, and Line Extension Policies allow a 600-foot allowance for single-phase customers and a 200-foot allowance for three-phase customers to receive a line extension. Trico is proposing to eliminate the free footage allowance which will require new customers or existing customers that have new line extension requests to pay the entire cost of the line extension relevant to that particular customer.

Mark Schwirtz from Trico stated in his direct testimony that Trico has been experiencing above average growth of over 6 percent annually for the past ten years. Because Trico's territory essentially surrounds the Tucson Electric Power Company service area, the growth experienced around Tucson and the surrounding suburban and rural areas has extended into the service territory of Trico. Trico's average annual growth rate from 1999 to 2007 for all customer classes of service has been 6.29 percent. However, due to the cyclical decline in construction since 2007, Trico's customer growth rate from 2007 through 2008 was 2.69 percent. Trico projects its customer growth in 2009 to be 1.93 percent. Despite the decrease in customer growth, Trico is experiencing customer growth greater than the national average growth in 2007 for residential and commercial customers of 1.2 percent, according to the Energy Information Administration's ("EIA") website. It is Staff's opinion that Trico's customer growth will return to its longer term average annual rate of approximately 6 percent or greater after the economy improves. Mr. Schwirtz also states that Trico has seen an increase in its costs of construction and its costs to finance the construction associated with such growth rates. Under such circumstances, Trico is experiencing financial pressure to meet the increasing demand. Staff agrees that elimination of Trico's free footage allowance would improve Trico's ability to recover the costs associated with this growth.

Staff notes that the elimination of the free footage for line extensions was granted by the Commission for UNS Electric, Inc. (Decision No. 70360), Graham County Electric Cooperative, Inc. (Decision No. 70289), and Arizona Public Service Company (Decision No. 70185). These utilities also experienced rapid customer growth rates in Arizona.

**Q. Should Trico make special provisions to phase in the elimination of the free footage for line extensions?**

**A.** Yes. Staff believes that any potential customer who has been given a line extension estimate or quote by Trico up to one year prior to an Order in this matter should be automatically exempt from the proposed line extension policy and be given the free footage for line extensions specified in Trico's current Rules, Regulations, and Line Extension Policies on file with the Commission.

**Q. Does Staff support Trico's various proposed modifications to other portions of the Rules, Regulations, and Line Extension Policies?**

A. Staff supports many of Trico's proposed modifications. The modifications that Staff does have concerns about are discussed below by section in the Rules, Regulations, and Line Extension Policies.

**Definitions**

1. Section 219 of Trico's Rules, Regulations, and Line Extension Policies refers to a "Facilities Charge." However, Trico does not provide a definition for "Facilities Charge" in the Definition section of its Rules, Regulations, and Line Extension Policies. Staff recommends that Trico include this definition in the Definitions section of its Rules, Regulations, and Line Extension Policies and renumber the remaining definitions accordingly.
2. Section 208.B of Trico's Rules, Regulations, and Line Extension Policies refers to "Spine Facilities or Backbone Facilities." However, Trico does not provide a definition for "Spine Facilities or Backbone Facilities" in the Definition section of its Rules, Regulations, and Line Extension Policies. Staff recommends that Trico include this definition in the Definitions section of its Rules, Regulations, and Line Extension Policies and renumber the remaining definitions accordingly.

**Section 102. Application for Service**

In this section, Trico has proposed to remove the word "optional" from item K., "Applicant's social security number" in the list of items required on the application for service. Currently, an applicant has the option to provide his or her social security number. With the proposed modification, an applicant would have to provide his or her social security number prior to receiving service. First, Staff is concerned that a social security number is being required when it is not actually needed. Second, Staff believes that removal of the word "optional" is inconsistent with the approved modifications of this section in Trico's previous rate case (Decision No. 68073). Staff recommends that the word "optional" remain in this section.

**Section 105. Service Beyond Scope of Line Extension Policy**

Currently, when service is requested that is different from the standard conditions contained in Trico's line extension policy, Trico files a separate contractual agreement with the Commission. Trico has proposed to modify the language so that a sample of an agreement would be filed with the Commission, instead of the actual agreement. Staff opposes this change. Staff recommends that an agreement concerning services that differ from approved policies must be filed with the Commission for approval.

**Section 106. Conditions for Supplying Service**

Section 106 lists the conditions under which Trico would grant an extension. The first item requires the premises to be wired in accordance with Codes. Staff recommends that the word "applicable" be inserted before the word "Codes" for clarity.

**Section 124. Billing Deposit Requirements**

Trico proposed adding the following sentence to the section on Billing Deposit Requirements: "B. The Cooperative may require an Applicant to pay a deposit in advance for locations identified by the Cooperative as "at risk" locations where balances are frequently left unpaid." An Applicant for service would be required to pay a deposit if others previously receiving service from Trico in that location had poor payment history. Trico's proposed requirement may also have potential of unjustly being applied to or targeting a particular area. Staff opposes this addition because it is discriminatory and unfairly penalizes new Applicants for the failure of others previously receiving service. Staff recommends that Trico not include this addition to its Rules, Regulations, and Line Extension Policies. This will ensure that Trico's billing deposit requirements are consistent with Commission Rules.

**Section 144. Service Call Fees**

This section lists examples of the types of service calls for which Trico may charge a fee to a customer. Trico has proposed to add the following to **Part A:** "or return trips in the event the initial trip was unsuccessful due to no fault of the Cooperative." Staff recommends that Trico modify the sentence to read: "or return trips in the event the initial trip was unsuccessful due to the fault of the customer." Staff believes this modification would ensure that a customer will only be charged a service fee if the return trip is due to the fault of the customer. Staff does not believe a customer should be charged if a return trip is required due to no fault of the customer.

**Section 201. Statement of Policy**

Currently, Trico provides plans, specifications, or cost estimates to an applicant requesting a line extension for a proposed subdivision within 45 days after the applicant pays a deposit. Trico has proposed to remove the following from **Part B:** "Proposed subdivisions with approved plans requiring electric service shall be given plans, specifications, or cost estimates within forty-five (45) days after subdivider pays a deposit as referred to above." This modification would extend the timeframe for providing such plans, specifications, or costs estimates for subdivisions from forty-five (45) days to ninety (90) days. This change would not be consistent with Arizona Administrative Code ("A.A.C.") R14-2-207.A.3 which specifies the timeframes in which an electric utility is required to provide plans, specifications, or cost estimates to an applicant requesting a line extension. Staff opposes Trico's proposed changes. Staff recommends that Trico modify this section to be consistent with A.A.C. R14-2-207.A.3.

In **Part F** of this section, Trico has proposed to remove references to its free footage allowance and clarify language regarding location(s) of a customer's point(s) of delivery. Trico has added the following to **Part F:** "unless in the Cooperative's opinion operation of multiple points of delivery is reasonable and economical." Staff recommends that Trico modify this sentence to read: "unless operation of multiple points of delivery is reasonable and economical" removing the words "in the Cooperative's opinion."

**Section 202. Minimum written Agreement Requirements**

Currently, **Part E** of this section does not list "overhead" as an item included in a cost estimate. Trico has proposed to add "overhead" to **Part E** as an item that is included in a cost estimate. Staff recommends that the word "reasonable" be inserted before "overhead."

**Section 203. Line Extension Costs**

To help clarify **Part D** of this section, Staff recommends that Trico specify that a customer shall pay only for those facilities dedicated solely to serve that particular customer. Trico has proposed including in this section a sentence which states that it may average the cost estimates of the previous 12 months for the specific type of line extension being requested to create a new cost estimate for a customer. Staff recommends that Trico add to this section the following sentence "If, for residential customers, the cost is greater than the previous twelve month average provided, by more than ten percent (10%), Trico shall provide written explanation and a cost comparison to the customer describing the reasons why the cost is greater than the twelve month average."

**Section 205. Extension to Residential Customers Outside of Duly Recorded Subdivisions**

Trico proposes to include language in Section 205 to address the difference between actual costs and estimated costs of a line extension. Part of the language includes the following sentence: "In the event the actual costs are less than the estimated costs, the Cooperative shall promptly pay the Customer the difference." Staff recommends that Trico modify this sentence to read: "In the event the actual costs are less than the estimated costs, the Cooperative shall pay the Customer the difference within 30 days." Staff believes that there should be a time limit for refunds.

**Section 214. Conversion of Line**

Currently, the heading of this section reads "Conversion of Overhead to Underground." Trico has proposed to remove the words "Overhead to Underground" and add the word "Line" to this heading. Staff recommends that Trico modify the heading of this section to read "Conversion of Existing Line."

**Section 219. Primary Service**

Currently, the heading of this section reads "Primary Service." Staff recommends that Trico modify the heading of this section to read "Primary Voltage Service." In addition, to help clarify this section, Staff recommends that Trico specify and clarify in the last sentence that all new customers pay 100 percent of the line extension distribution and transmission facility construction costs, between the nearest Trico power facility and the point of delivery, constructed to serve that specific individual customer. Staff does not believe that the costs for facilities or upgrades of facilities on the Cooperative's side (source side) should be charged to the customer as part of a line extension.

**Section 301. Frequency of Meter Reading**

This second sentence of this section currently reads "however, in no event will meters not be read less frequently than every three (3) months." To clarify this section, the sentence should read: "However, in no event will meters be read less frequently than every three (3) months." Staff recommends that Trico revise this sentence.

**Section 305. Conditions for Estimated Bills**

Currently, the heading for this section reads "Conditions for Estimated Bills." The heading for this section should read "Estimated Bills" to better reflect the contents of this section. In addition, Staff recommends that Trico include, in this section, a reference to its Bill Estimation Tariff.

**Section 315. Customer Requested Rereads**

Currently, this section does not specify the rate schedule where a customer can find the amount he or she may be charged for a reread of his or her meter. Staff recommends that Trico specify, in this section, that the charge for a meter reread can be found in its Schedule of Special Charges.

**Section 335. Tampering and Theft Charges**

Currently, this section explains that Trico is entitled to collect damages for tampering and theft of services according to Arizona law. However, Trico does not include the appropriate Arizona law(s) in this section. Staff recommends that Trico specify the appropriate Arizona law(s) in this section.

**Section 358. Non-Permissible Reasons to Terminate Electric Service**

This section includes a paragraph that states that Trico would not terminate service to a customer who is unable to pay, and that termination would be dangerous or life threatening, that life supporting equipment is dependent on electric service, or that weather would be especially dangerous to health. However, Trico has proposed adding the phrase "for a reasonable period of time" to apparently allow termination of service after a period of time to these customers. This change would not be consistent with A.A.C. R14-2-211.A.5. which does not allow termination of service to customers in this situation. Staff opposes Trico's proposed changes. Staff recommends that Trico not include this modification in its Rules, Regulations, and Line Extension Policies.

In addition, the reference to "E or F" in **Part F** should read "D or E."

**Section 359. Termination of Service without Notice**

This section lists the conditions when electrical service may be disconnected without advance written notice. Trico has proposed adding "refusal to give the Cooperative's personnel access to the meter or any facilities of the Cooperative on the property of the Customer" to the list of conditions not requiring advance notice for termination of service. This would not be consistent with A.A.C. R14-2-211.C.1.d. which lists this item as requiring notice before disconnection. Staff opposes Trico's proposed changes. Staff recommends that Trico not include this modification to its Rules, Regulations, and Line Extension Policies.

**Section 365. Written Notice Information Required**

Currently, the heading of this section reads "Advance Notice Information Required." Trico has proposed to remove the word "advance" and insert the word "written" in the heading. However, Trico refers to "advance written notice" in this section. To maintain consistency, Staff recommends that the word "Advance" remain in the section heading.

**Section 369. Delivery of Notice Requirement**

This section describes the conditions in which a customer will be considered to have been notified of termination of service. To clarify the purpose of this section, the heading should read "Delivery of Notice of Termination Requirement".

**Section 371. Service Termination by Cooperative**

Currently this section reads "A service may only be disconnected by an authorized representative of the Cooperative, by a means acceptable to the Cooperative." Trico has proposed to remove the words "of the Cooperative" from this section description. To clarify this description, Staff recommends that the words "of the Cooperative" remain in the section.

**SUMMARY OF STAFF RECOMMENDATIONS**

**Q. Please summarize Staff's recommendations.**

A. Staff recommends that any potential customer who has been given a line extension estimate or quote by Trico prior to an Order in this matter should be automatically exempt from the proposed line extension policy and be given the free footage for line extensions specified in Trico's current Rules, Regulations, and Line Extension Policies on file with the Commission.

Staff opposes some of Trico's proposed modifications to its Rules, Regulations, and Line Extension Policies, as described herein.

Staff recommends that its proposed changes to Trico's Rules, Regulations, and Line Extension Policies be adopted as specified herein.

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

A. Yes, it does.

**BEFORE THE ARIZONA CORPORATION COMMISSION**

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

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|---|---|
| IN THE MATTER OF THE APPLICATION OF TRICO ELECTRIC COOPERATIVE, INC., AN ARIZONA NONPROFIT CORPORATION, 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 |

DIRECT

TESTIMONY

OF

RAY T. WILLIAMSON

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 27, 2009

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

Mr. Williamson's testimony supports the Utilities Division Staff's ("Staff") position in the case of Trico Electric Cooperative, Inc.'s ("Trico") application for a general rate increase. Mr. Williamson describes his engineering evaluation and his inspection of the Trico distribution system. The evaluation looks at Trico's current operation, maintenance, and planning as outlined in Trico's 2007-2010 Construction Work Plan.

It is Staff's conclusion that Trico:

- is maintaining and operating its electrical system properly,
- has an acceptable level of system losses, consistent with the industry guidelines,
- is carrying out system improvements, upgrades and new additions to meet the current and projected load of the Cooperative in an efficient and reliable manner, and
- has a satisfactory record of service interruptions in the periods of 2007 and 2008.

**INTRODUCTION**

**Q. Please state your name, occupation, and business address.**

A. My name is Ray T. Williamson. 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 received a Bachelor of Science degree in Engineering from the U.S. Military Academy in 1970. I graduated with a Master of Public Service degree from Western Kentucky University in 1976. I received a Master of Business Administration degree from Arizona State University in 1982.

**Q. Please describe your pertinent work experience.**

A. I have worked at the Arizona Corporation Commission since 1992 in various capacities, including Economist, Engineer, Senior Rate Analyst, Chief of Economics & Research, and Acting Director of the Utilities Division. Most of my work has been related to electric utilities and gas utilities. I have been active in all phases of renewable energy programs at the Commission. I served as a member of the Arizona Power Plant and Transmission Line Siting Committee from 2001-2005, covering 21 transmission and power plant cases.

**Q. What was your assignment in this case?**

A. I was assigned to perform an engineering evaluation of Trico Electric Cooperative, Inc.'s ("Trico") electric system, to include an inspection of the Trico distribution system and facilities.

## ENGINEERING EVALUATION

**Q. Please describe Trico's general utility background and the potential for load growth in its service territory.**

A. The following provides an overview of Trico's electric system, its customers and projected load grown in its service territory.

### Utility Overview

Trico is a member-owned electric cooperative which operates an electric public service company in Pima, Pinal, and Santa Cruz Counties of Arizona. Trico operates under a Certificate of Convenience and Necessity issued by the Arizona Corporation Commission.

Trico's principal place of business is located at 8600 West Tangerine Road in Marana, Arizona.

Trico is required to purchase all of its electricity from Arizona Electric Power Cooperative, Inc. ("AEPCO") under an amended Wholesale Power Contract between Trico and AEPCO.

### Customer and Load Growth

In the last four years, Trico was one of the fastest growing electric cooperatives in the U.S. Since 2003, Trico's average number of customers has increased from 28,762 to 37,373.

This is a 29.94 percent increase. Over 36,000 of the 37,373 customers are residential customers.

Trico's net plant after depreciation has increased from $102,098,701 to $156,985,850, an increase of more than 53 percent. The Trico system has over 3,500 miles of overhead and underground distribution lines. Trico employs 126 full-time employees.

Trico's service area, which is predominately rural, surrounds the City of Tucson, extending 20 miles to the north, 15 miles to the east, 50 miles to the south and 25 miles to the west. The territory includes: Sasabe, Arivaca, and the Boboquivari Mountains areas.

**Q. Did you perform an engineering evaluation of Trico's electrical system?**

A. Yes. On January 16, 2009, I visited the Trico offices in Marana and met with Mr. Ron Brown, Manager of Electric Operations.

We visited the various sections and offices of Trico at the headquarters and I inspected the warehouse, the metering department, equipment yard, and operations center.

Next, we drove to inspect the Trico distribution system. This included a visit to the Thornydale, Sandario, and Marana substations. The transformer and circuit breakers were properly grounded and the substations were properly maintained.

**Q. What are the major capital improvement projects that Trico plans to cover in its work plan?**

A. Trico estimates that the four-year construction work plan will have a cost of approximately $88,549,830. Over 55 percent of the cost will be for line extensions to new customers and the need for new transformers and meters for those new customers. Approximately 7.5 percent of the total, or $6,626,685, will be for new transmission lines and substations owned by Trico. An additional cost will be for direct assigned facilities from Southwest Transmission Cooperative ("SWTC").

Trico estimates that 27.6 percent of the work plan costs ($24,439,867) will be spent for improvements to the Trico system. That will include $10,512,811 for new line ties and $12,221,993 for line conversions and changes. Another $4,498,166 will be used to replace poles and other items in the distribution system.

The new Naviska and New Tucson substations will be needed by 2010 to take some of the load that is expected to push the Thornydale and Sahuarita substations to and past their thermal limits.

**Q. What is your view of Trico's system reliability?**

A. Trico reports its 2006 average outage time per customer was 2.472 hours and that Trico's five year average is 2.361 hours per customers. Staff believes that these outage times are reasonable according to the national Rural Utilities Service ("RUS") standard of 5 outage hours per customer per year.

Trico is constructing major lines with an extra safety factor to withstand most wind "down bursts."

Trico's building of the new Naviska, Bicknell, San Joaquin, and New Tucson Substations will assist Trico in meeting its projected system load growth in a safe and reliable manner.

**Q. At what level are Trico's overall system losses? Are they reasonable and acceptable?**

A. Trico's annual system losses ranged from a low of 4.85 percent to a high of 5.50 percent during the years 2000-2007. These losses are well below the industry guideline of 10 percent per year for rural electric cooperatives.

**CONCLUSIONS**

**Q. What are Staff's conclusions regarding the engineering evaluation of Trico's electric system?**

A. Staff's conclusions are as follows:

It is Staff's conclusion that Trico:

- is maintaining and operating its electrical system properly,
- has an acceptable level of system losses, consistent with the industry guidelines,
- is carrying out system improvements, upgrades and new additions to meet the current and projected load of the Cooperative in an efficient and reliable manner, and
- has a satisfactory record of service interruptions in the periods of 2007 and 2008.

**Q. Does that conclude your direct testimony?**

A. Yes, it does.