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Witness: Mark L. Oligschlaeger  
Sponsoring Party: MoPSC Staff  
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Case No.: ER-2006-0315  
Date Testimony Prepared: September 27, 2006

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**TRUE-UP DIRECT TESTIMONY**

**OF**

**MARK L. OLIGSCHLAEGER**

**THE EMPIRE DISTRICT ELECTRIC COMPANY**

**CASE NO. ER-2006-0315**

Jefferson City, Missouri  
September 2006

Staff Exhibit No. 148  
Case No(s) ER-2006-0315  
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**TABLE OF CONTENTS**  
**TRUE-UP DIRECT TESTIMONY**  
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EXECUTIVE SUMMARY ..... 1

TRUE-UP AUDIT ..... 2

REGULATORY PLAN AMORTIZATIONS ..... 11

1                                   **TRUE-UP DIRECT TESTIMONY**  
2   **OF**  
3                                   **MARK L. OLIGSCHLAEGER**  
4                                   **THE EMPIRE DISTRICT ELECTRIC COMPANY**  
5                                   **CASE NO. ER-2006-0315**

6           Q.     Please state your name and business address.

7           A.     Mark L. Oligschlaeger, P. O. Box 360, Jefferson City, MO 65102.

8           Q.     Are you the same Mark L. Oligschlaeger who has previously filed direct  
9 testimony, supplemental direct testimony, rebuttal and surrebuttal testimony in this  
10 proceeding for the Staff?

11          A.     Yes, I am.

12          Q.     What is the purpose of your true-up direct testimony?

13          A.     The purpose of this testimony is to report the results of the Staff's true-up audit  
14 of The Empire District Electric Company (Empire or Company) in this proceeding.

15                   **EXECUTIVE SUMMARY**

16          Q.     Please briefly summarize your true-up direct testimony.

17          A.     The Staff has performed a true-up audit of Empire's electric operations in  
18 conformity with the Commission's April 11, 2006, "Order Concerning Test Year and True-up  
19 and Adopting Procedural Schedule." In this testimony, I discuss the results of this audit in  
20 general, and in particular the Staff's positions and adjustments concerning renewable energy  
21 credit revenues, rate case expense, and allocation of administrative and general costs and net  
22 general plant in service. I also present the Staff's updated Regulatory Plan amortization  
23 calculation results, reflecting the changes made to the Staff's case per the true-up audit. I also

1 discuss a new approach Staff has used to determine the amount of long-term debt attributable  
2 to Empire's electric operations in the context of the Regulatory Plan amortization  
3 calculations, and the Staff's current position on the Regulatory Plan amortization tax gross-up  
4 issue.

5 **TRUE-UP AUDIT**

6 Q. Please describe the true-up audit of Empire's electric operations performed by  
7 the Staff in this proceeding.

8 A. Per the Commission's April 11, 2006 Order authorizing a true-up in this  
9 proceeding, the Staff has updated its case to reflect known and measurable events affecting  
10 significant elements of Empire's electric revenue requirement for the period April through  
11 June 2006. The revenue requirement areas updated by the Staff are the following:

12 Rate Base: Plant in Service, Depreciation Reserve, Deferred Taxes, Fuel Inventories,  
13 Cash Working Capital (annualized amounts only), Materials and Supplies, Prepayments,  
14 Customer Advances, Customer Contributions, Customer Deposits, Cash Working Capital  
15 Income Tax and Interest Offsets, Allocation Factors.

16 Income Statement: Revenues from Customer Growth, Off-System Sales Margin,  
17 Uncollectibles, Payroll (Employee Levels and Wage Rates), Fuel and Purchased Power  
18 Expense (Fuel and Purchased Power Prices, System Loads), Rate Case Expense, Commission  
19 Assessment, Depreciation Expense, Property Taxes (if applicable and appropriate), Income  
20 Tax (Effect of Trued-up Items), Allocation Factors.

21 Rate of Return: Rate of Return Calculation (excluding Return on Equity), Capital  
22 Structure.

23 Q. How did the Staff conduct its true-up audit?

1           A.     The Staff updated its analysis in almost all of the areas listed above using the  
2 same methods and approach it used in its initial filing in this proceeding. Where the Staff has  
3 deviated from the approach it used in its initial filings due to new circumstances or the  
4 existence of new costs not examined in the Staff's direct case, these instances will be  
5 addressed in this testimony.

6           Q.     What capital structure is the Staff using as of June 30, 2006?

7           A.     The Staff is using Empire's actual capital structure as of June 30, 2006, which  
8 consists of 50.80% common equity, 5.39% trust preferred stock and 43.81% long-term debt.

9           Q.     What is the Staff's true-up rate of return recommendation in this case?

10          A.     After updating the long-term debt rate and capital structure percentages, the  
11 Staff's rate of return recommendation at true-up is 8.41%, reflecting a mid-range return on  
12 equity of 9.55%.

13          Q.     What revenue components were updated by the Staff in its true-up audit?

14          A.     The Staff updated its revenue adjustments to reflect customer growth for the  
15 period April – June 2006 for the following customer classes: residential, commercial, small  
16 heating, total electric buildings, and general power.

17          Q.     What components of fuel/purchased power expense were updated by the Staff  
18 in its true-up audit?

19          A.     The Staff has updated its calculated natural gas prices, coal prices, purchased  
20 power prices, and freight/transportation costs associated with delivery of coal, natural gas  
21 and petroleum coke. The result of this update, when the Staff incorporated this updated  
22 information in its fuel expense model, was an increase in the Staff's recommended level of  
23 fuel/purchased power variable costs from \$159,420,692 to \$161,981,643.

1 Q. Why did the Staff's recommended level of fuel/purchased power expense  
2 increase as a result of the true-up?

3 A. Part of this increase relates to serving the increased customer loads reflected in  
4 the Staff's true-up revenues calculation. Also, replacing April-June 2005 fuel and  
5 purchased power price data with the same months for 2006 in Staff's adjustment  
6 calculations resulted in an overall increase to natural gas and purchased power prices. In  
7 addition, the price to transport coal and petroleum coke by truck increased in the true-up  
8 period due to very high gasoline price levels at June 30, 2006.

9 Q. What true-up natural gas price is the Staff recommending that the  
10 Commission use to set rates in this case?

11 A. The Staff's overall recommended price for natural gas in this proceeding is  
12 \$6.39 per MMBtu. This result is derived from Empire's known and measurable hedged  
13 contracts to purchase natural gas as of June 30, 2006, applicable to the months July 2006  
14 through December 2007, valued at \$6.007/MMBtu; and the weighted average actual price  
15 paid by Empire for spot natural gas for the twelve months ended June 2006, valued at  
16 \$8.109/MMBtu. The Staff combined these two gas costs at an 80% weighting for hedged  
17 gas costs to 20% for spot gas costs to determine the overall price of \$6.39 per MMBtu. This  
18 methodology is consistent with that used to determine the Staff's recommended natural gas  
19 price in its initial direct filing.

20 Q. What is Staff adjustment S-100.1?

21 A. This adjustment includes, in Empire's annualized revenues amounts it has  
22 received from sale of "renewable energy credits" during the test year, update period and  
23 true-up period.

1 Q. What are renewable energy credits (RECs)?

2 A. RECs are credits issued under the Center for Resource Solution's "green-e"  
3 program to certify that one megawatt-hour of electricity has been generated by a facility  
4 engaged in the production of renewable energy, such as wind, solar, or biomass. Since a  
5 number of governmental entities in this country require electric utilities to generate or  
6 obtain a certain percentage of energy from renewable resources, RECs are tradable and can  
7 be bought and sold.

8 Q. Has Empire received revenues from sale of RECs in the test year, update  
9 period and true-up period?

10 A. Yes. Because Empire currently purchases the entire generation output of the  
11 Elk River Wind Farm per a long-term agreement, Empire receives all of the RECs  
12 associated with the Elk River Wind Farm's energy output. Empire has chosen to sell its  
13 RECs since it began taking energy from the Elk River Wind Farm in late 2005.

14 Q. Does Empire have a requirement to generate or obtain power from renewable  
15 sources in any jurisdiction in which it operates?

16 A. No, not to the Staff's knowledge.

17 Q. How much revenue has Empire received from its sale of RECs since late 2005?

18 A. Approximately \$337,000 on a total Company basis.

19 Q. Should the revenues Empire receives from sale of RECs be reflected in the  
20 Missouri ratemaking process?

21 A. Yes, because Missouri customers will be paying the costs of the wind power  
22 obtained by Empire from the Elk River Wind Farm as a result of this case. For this reason,

1 Missouri customers are likewise entitled to any revenue benefits received by Empire as a  
2 result of its contract with the Elk River Wind Farm.

3 Q. Please describe adjustment S-100.1.

4 A. This adjustment reflects in Empire's revenues all proceeds from sale of RECs  
5 from December 2005 to June 2006. Because REC revenues received within the test year  
6 were booked below-the-line by Empire, this adjustment includes those revenues as well as  
7 amounts received by Empire after the end of the test year but prior to the cut-off date for the  
8 true-up.

9 Q. Why is the Staff proposing this adjustment for REC revenues in its true-up  
10 direct testimony, instead of its initial direct testimony in this proceeding?

11 A. The Staff was not aware of Empire's sale of its RECs until June 2006, just  
12 prior to its initial direct filing. On June 23, 2006, the Staff filed a *Notice* with the  
13 Commission to notify it of this issue, and to state that the Staff would address proper  
14 ratemaking treatment of REC revenues in subsequent testimony filings.

15 Q. How did the Staff update Empire's rate case expense in the true-up audit?

16 A. The Staff has reflected Empire's actual rate case expenses incurred through  
17 September 21, 2006, in its case, as well as, including an estimate of the costs Empire will  
18 incur during the true-up and briefing phases of this case. As discussed in the initial direct  
19 testimony of Staff witness Paula Mapeka in this proceeding, the Staff is proposing to  
20 normalize Empire's rate case expense incurred during this proceeding over a two-year period.

21 Q. Has Empire experienced any significant changes to its corporate structure  
22 during the true-up period that will affect its corporate allocations on a going-forward basis?



1           A.     Yes. On June 1, 2006, Empire completed its acquisition of Aquila United,  
2 Inc.'s Missouri natural gas properties, and formed a new subsidiary to operate its new gas  
3 business.

4           Q.     What impact will Empire's new natural gas properties have on its electric  
5 operations?

6           A.     While there should be few direct impacts on Empire's electric operations from  
7 its acquisition of natural gas properties, one direct impact will be a reduction in the percentage  
8 of administrative and general (A&G) costs otherwise allocable to Empire's electric  
9 operations.

10          Q.     Why will the natural gas acquisition affect the allocation of A&G costs to  
11 Empire's electric operations?

12          A.     A&G costs represent corporate overhead costs, or the type of costs a company  
13 incurs that are not directly assignable to any of its distinct lines of business (executive  
14 salaries, corporate office facility and supplies costs, etc.). Therefore, A&G costs are generally  
15 allocated among a utility's lines of business, so that all lines of business bear a reasonable  
16 proportion of a utility's overhead costs. Typically, as a utility expands through mergers and  
17 acquisitions, there will be a reduction in the amount of A&G costs allocated to its existing  
18 divisions/subsidiaries as the new additions will be charged a proportionate share of the  
19 existing A&G cost levels. In this proceeding, the Staff believes it is appropriate to re-  
20 calculate Empire's A&G allocation factors to reflect the known and measurable natural gas  
21 acquisition event that occurred during the true-up period.

22          Q.     What is the relative size of Empire's new gas properties compared to its other  
23 properties?

1           A.     Empire has provided the Staff with a "Massachusetts Formula" analysis of the  
2 amounts of revenue, plant in service and payroll costs experienced by Aquila United, Inc.'s  
3 former Missouri gas properties in calendar year 2005, compared to these same items for  
4 Empire's pre-existing electric, water and non-regulated operations for the same period of  
5 time. This analysis showed that Empire's gas properties are currently estimated to make up  
6 approximately 9.37% of Empire's total Company operations. That means, all other things  
7 being equal, that the gas acquisition should mean a reduction in the percentage of A&G costs  
8 allocated to Empire's electric operations of close to 10%.

9           Q.     Is the Company using the 9.37% percentage above to allocate overhead costs  
10 to its new gas properties?

11          A.     Yes. The Massachusetts Formula is a commonly used procedure in the  
12 regulated utility industry for allocation of common/overhead costs. The 9.37% percentage  
13 referenced in my testimony above is currently being used by Empire to allocate a portion of  
14 its A&G costs to its gas properties.

15          Q.     How did the Staff calculate its adjustment to reflect the reduction in the A&G  
16 expense allocations to Empire's electric operations resulting from the gas acquisition?

17          A.     The Staff re-calculated the allocation factors for selected A&G accounts to  
18 take into account the reduced A&G allocation to Empire's electric operations resulting from  
19 the gas acquisition, using the Massachusetts Formula analysis performed by Empire. The  
20 accounts to which the new allocation factors were applied included A&G salaries, office  
21 supplies, outside services, rents and maintenance of general plant.

1           The calculation of the new A&G allocators is shown in Schedule 1 of this testimony.  
2           Use of these allocation factors has the impact of reducing Empire's electric A&G expense by  
3           over \$700,000 (Missouri jurisdictional) on an annual basis.

4           Q.     Is it possible that the Company could experience additional costs in these A&G  
5           accounts as a result of the gas acquisition that might in part offset savings in electric A&G  
6           allocations?

7           A.     Yes, that is possible. To the extent the Company incurred any such additional  
8           costs by June 30, 2006, (the true-up cut-off) and the costs were in an area updated by the Staff  
9           in the true-up (such as payroll costs), then the additional costs would be reflected in the  
10          Staff's true-up revenue requirement.

11          Q.     Why didn't the Staff reflect new A&G allocations for all of the A&G expense  
12          accounts listed in Accounting Schedule 9, Income Statement?

13          A.     Certain A&G accounts, such as Employee Pensions and Benefits, Property  
14          Insurance, Injuries and Damages, and Miscellaneous Expenses (largely advertising-related)  
15          will likely be charged additional costs due to the gas acquisition. Without further analysis, at  
16          this time it is impossible to determine the extent to which any increased costs in those  
17          accounts will offset or even outweigh the reduction in allocated expenses to Empire's electric  
18          operations that would otherwise occur in those accounts. Therefore, to be conservative, the  
19          Staff has not changed the electric A&G allocation factor that applies to those accounts.

20          Q.     Are there any other expected savings to Empire's electric business resulting  
21          from the gas acquisition?

22          A.     Yes. Empire's electric operations will receive a lower allocation of its general  
23          plant in service (for example, its corporate office building), as a result of the gas acquisition.

1 General plant is the plant investment that is not specifically associated with any of Empire's  
2 lines of businesses.

3 Q. How did the Staff calculate the appropriate allocation factors for general plan  
4 in service and general plant depreciation reserve as of June 30, 2006?

5 A. These calculations can also be found in Schedule 1 of this testimony. The total  
6 reduction in the amount of net plant in service allocated to the Missouri jurisdictional electric  
7 operations of Empire due to the new allocation factors is in excess of \$2 million.

8 Q. Is the issue of A&G allocations a continuing subject of discussion between the  
9 Company and the Staff?

10 A. Yes, it is. The Staff will obtain additional information from the Company after  
11 this testimony is filed to gain a more complete understanding of Empire's plans for allocating  
12 A&G costs to its business lines in the future. Based upon this information, it is possible that  
13 the Staff may modify its position on this issue if appropriate.

14 Q. What were the overall results of the Staff's true-up audit?

15 A. For the Staff's Interim Energy Charge (IEC) Termination scenario, the Staff's  
16 recommended revenue requirement after the true-up audit is \$15,929,828. When taking into  
17 account the reduction in IEC revenues assumed in this scenario, the net rate increase to  
18 Empire's customers under this scenario is \$7,120,178.

19 For the IEC Continuation scenario, the Staff's recommended revenue requirement is  
20 (\$15,258,967).

21 Q. Is the Staff filing True-up Accounting Schedules along with its true-up  
22 testimony?

1           A.     Yes. As with its initial direct filing, the filed accounting schedules support the  
2 Staff's IEC Termination revenue requirement. The only differences between the Staff's  
3 adjustment amounts for the IEC Termination and IEC Continuation scenarios are depicted on  
4 Schedule 2 of this testimony, which is in a similar format to that of Schedule 3 attached to my  
5 direct testimony.

6           **REGULATORY PLAN AMORTIZATIONS**

7           Q.     Has the Staff updated its calculations for the Regulatory Plan amortizations  
8 authorized in the Stipulation And Agreement for Case No. EO-2005-0263?

9           A.     Yes, it did. The updated amortization calculation for the IEC Termination  
10 scenario is shown as Schedule 3 in this testimony, while the updated calculation for the IEC  
11 Continuation scenario is shown as Schedule 4 in this testimony.

12          Q.     Are these amortization calculations different than the earlier calculations  
13 attached to your supplemental direct testimony?

14          A.     Yes. These calculations reflect the Staff's updated true-up revenue  
15 requirement.

16          Q.     Is the Staff proposing any changes to the methodology used to calculate the  
17 Regulatory Plan amortizations at this time?

18          A.     Yes, in the area of capital structure allocation and in the amount of additional  
19 book depreciation required to meet the rating agency metrics. Both of these changes in  
20 approach are discussed below.

21          Q.     Why does the Staff believe a change in approach is needed in the capital  
22 structure allocation area?

1           A.     In the amortization calculations it sponsored in supplemental direct testimony,  
2 the Staff derived the long-term debt component used in the ratio analysis by taking Empire's  
3 total Company capital structure, determining the portion of that capital structure supported by  
4 long-term debt, and then applying a Missouri jurisdictional plant allocation factor to that long-  
5 term debt amount. At that time, this approach was believed to have provided an accurate  
6 quantification of the amount of Empire's long-term debt associated with its electric  
7 operations.

8           Since that time, as previously mentioned, Empire has acquired significant natural gas  
9 operations. To ensure that Empire's debt associated with its new gas and existing non-  
10 regulated operations is not included in the calculation of an amortization intended to cover  
11 only Empire's Missouri jurisdictional electric operations, the Staff has determined that  
12 another approach to determining the amount of debt attributable to Empire's electric business  
13 is more appropriate than the one previously employed by the Staff.

14          Q.     Please describe the Staff's new approach.

15          A.     The Staff analyzed Empire's Electric Balance Sheet as of June 30, 2006, and  
16 determined the amount of Empire's net investment in its electric operations (assets less  
17 liabilities) not reflected in its rate base for ratemaking purposes. (This amount includes such  
18 items as Construction Work in Progress and net Regulatory Assets.) The Staff then combined  
19 this amount with the amount of the Staff's recommended electric rate base (from Accounting  
20 Schedule 2), and applied the current percentage of long-term debt in Empire's capital  
21 structure to the combined rate base/balance sheet net investment amount to determine the  
22 amount of long-term debt attributable to Empire's electric operations used in the Regulatory  
23 Plan calculation.

1           Q.     Is this general approach to determining the amount of long-term debt  
2     attributable to electric operations also being used by the Staff in the current KCPL rate  
3     proceeding, Case No. ER-2006-0314?

4           A.     Yes, it is my understanding that the same general approach will be used by the  
5     Staff in the calculation of the Regulatory Plan amortization for KCPL in that rate proceeding  
6     as well.

7           Q.     Why has the Staff's approach changed regarding the amount of additional book  
8     depreciation provided to allow the Company an opportunity to maintain its investment grade  
9     credit ratings?

10          A.     In prior testimony in this proceeding, the Staff recommended that the  
11     Commission order that any Regulatory Plan amortizations included in rates be treated as book  
12     depreciation by Empire, and that a tax straight-line depreciation deduction equal to the  
13     amount of the amortizations be reflected in the ratemaking process as well.

14          The Staff has made updated calculations to determine the amount of additional book  
15     depreciation required by Empire to address the full cash flow requirements of the credit rating  
16     agency metrics, as measured in the Regulatory Plan amortization calculation (attached as  
17     Appendix D-3 to the Regulatory Plan Stipulation And Agreement from Case No.  
18     EO-2005-0263). Consistent with any increase in book depreciation, Empire will recognize a  
19     corresponding increase in the tax straight-line depreciation deduction used in calculating  
20     deferred income taxes. The impact on deferred tax expense has also been considered in the  
21     Regulatory Plan amortization calculations, consistent with the increased book depreciation  
22     and increased tax straight-line depreciation deduction resulting from the amortization amounts

1 granted in rates. This impact on deferred tax expense was not considered in the Staff's prior  
2 Regulatory Plan amortization calculations.

3 The net result of the Staff's proposed increase in book depreciation recovery through  
4 the Regulatory Plan amortization mechanism addresses the agreement to provide Empire the  
5 opportunity to obtain the necessary after-tax cash flow required to meet the two Regulatory  
6 Plan credit metrics.

7 Q. Are the other parties to this case in agreement with the Staff's approach to this  
8 issue outlined in this testimony?

9 A. The Staff believes there is a "settlement in principle" on the issue of the  
10 Regulatory Plan amortization gross-up among the parties to this proceeding consistent with  
11 the position set forth in this testimony. At this time, the parties are endeavoring to agree on  
12 language for a stipulation and agreement on this matter for submission to the Commission.  
13 This matter is quite complex.

14 Q. What do the Staff's current Regulatory Plan amortization calculations show?

15 A. For the IEC Termination scenario, the Staff's calculated amount is  
16 \$20,745,271; and for the IEC Continuation scenario, the Staff's calculated amount is  
17 \$43,009,776.

18 Q. Taking into account both the Staff's traditional revenue requirement and the  
19 Regulatory Plan amortization revenue requirement, what is the total Staff recommended  
20 revenue requirement for Empire in this case under both scenarios?

21 A. The Staff's total revenue requirement recommendation under the IEC  
22 Termination scenario is \$27,865,449 [\$7,120,178 + \$20,745,271], and for the IEC  
23 Continuation scenario it is \$27,750,809 [(15,258,967) + \$43,009,776].



1           Q.     Why has the amount of the calculated Regulatory Plan amortizations increased  
2 significantly from those attached to your earlier supplemental direct testimony?

3           A.     Most of the increase relates to Empire's greater average debt level for the  
4 twelve months ended June 30, 2006, compared to its average debt level for the twelve months  
5 ended March 31, 2006, the debt amount for which the earlier amortization calculations were  
6 based. All other things being equal, higher debt levels will drive the Company's Regulatory  
7 Plan financial ratios lower, and thereby increase the amount of the necessary amortizations to  
8 maintain Empire at investment grade credit ratings.

9           Q.     Does this conclude your true-up testimony?

10          A.     Yes, it does.

## CALCULATION OF POST-GAS ACQUISITION A&G ALLOCATION FACTORS

- 1) Empire Allocation Factors June 2006, per Massachusetts Formula  
(per 8/9/06 e-mail from Kelly Walters, Empire)

Electric/Water	89.10%
Gas	9.37%
Non-Regulated	1.53%

- 2) Eliminate Non-Regulated Operations from Allocation Factors

Electric/Water/Gas Total	98.47%
Electric/Water (89.1/98.47)	90.48%
Gas (9.37/98.47)	9.52%

- 3) Break Out Water Allocation from Electric Allocation\*

Electric Revenues	\$375,019,825	99.57%
Water Revenues	\$1,616,594	.43%
Electric Plant	\$1,274,613,917	99.22%
Water Plant	\$9,988,725	.78%
Average Electric Percentage		99.395%

	90.48%
X	<u>.99395</u>

Total Company Electric Allocation (post-gas acquisition.) **89.93%**

\* Electric and water revenues and plant totals taken from 8/9/06 e-mail from Kelly Walters

### A&G Expense Allocator

Total Company Electric Allocator		89.93%
Mo. Electric Only A&G Allocator	X	<u>.8289</u>
Missouri Juris A&G Expense Allocator		<b>74.54%</b>

### General Plant Allocator

Total Company Electric Allocator		89.93%
Mo. Electric Only Genl. Plant Allocator	X	<u>.8526</u>
Missouri Juris Genl. Plan Allocator		<b>76.67%</b>

### General Plant Depreciation Reserve Allocator

Total Company Electric Allocator		89.93%
Mo. Electric Only Genl. Plant Depr. Res. Allocator	X	<u>.8537</u>
Missouri Juris Genl. Plant Depr. Res. Allocator		<b>76.77%</b>

**STAFF ALTERNATIVE REVENUE REQUIREMENT CALCULATION  
IEC CONTINUATION SCENARIO  
DIFFERENCES FROM FILED TRUE-UP ACCOUNTING SCHEDULES**

**Accounting Schedule 10, Adjustments to Income Statement**

**REVENUES**

**Accounting Schedules** Adjustment S-1.3: "Eliminate test year Interim Energy Charge Revenues" **(\$6,305,092)**

**Alternative Revenue Requirement Calculation:** Substitute New Adjustment S-1.3: "To adjust test year revenues to reflect Staff's annualization of the IEC rate implemented on 3/27/05"

**+\$2,504,558**

**EXPENSES**

**Accounting Schedules** Adjustment S-7.3: "To adjust test year variable production fuel cost to reflect Staff's annualized level"

**+\$797,442**

Adjustment S-28.2: "To adjust test year variable production fuel cost to reflect Staff's annualized level"

**+\$1,903,425**

Adjustment S-36.2: "To adjust test year expense to reflect Staff's annualization of purchased power for energy charges (variable production)"

**+\$4,459,465**

**Alternative Revenue Requirement Calculation:** New adjustment S-7.3: Substitute for three adjustments listed above "To adjust test year fuel and purchased power expense to reflect levels included in rates in Empire's last rate case"

**(\$19,821,311)**

Adjustments S-28.2 and S-36.2 taken to zero.

1	Calculation of Amortization to meet Financial Ratio Targets			9/27/2006
2	IEC Termination Scenario			
3			Total	Juris
4			Company	Alloc
5	Additional Net Balance Sheet Investment			61,935,326
6	Rate Base	Staff Acct. Schedule 2 *		619,012,465
7	Jurisdictional Allocation for Capital			0.82
8				
9	Total Capital	L5+L6		680,947,791
10	Equity	Murray True-up Workpapers	0.5080	345,921,478
11	Trust Preferred	Murray True-up Workpapers	0.0539	36,703,086
12	Long-term Debt	Murray True-up Workpapers	0.4381	298,323,227
13	Cost of Debt	Murray True-up Workpapers		7.03%
14	Interest Expense	L12 * L13 (+\$4,250,000 (TOPRs))		25,222,123
15				
16	Electric Sales Revenue	Staff Acct. Schedule 9, L.1-3, + Rate Increase		315,233,481
17	Other Electric Operating Revenue	Staff Acct. Schedule 9, L.4-6		4,518,143
18	Water Revenue			
19	Operating Revenue	L16 + L17		319,751,624
20				
21	Operating and Maintenance Expense	Staff Acct. Schedule 9, L.95 (less cust. deposits)		205,737,911
22	Depreciation	Staff Acct. Schedule 9, L.96 + L100		32,584,603
23	Amortization			
24	Interest on Customer Deposits	Staff Acct. Schedule 10, Adj. S-70.3		542,569
25	Taxes Other than Income Taxes	Staff Acct. Schedule 9, L.101		11,240,091
26	Federal and State Income Taxes	Staff Acct. Schedule 9, L.112 (plus rate incr. impact)		17,587,502
27	Gains on Disposition of Plant			
28	Total Water Operating Expenses			
29	Total Electric/Water Operating Exp	Sum of L. 21-28		267,692,676
30				
31	Operating Income - Electric	L19 - L29		52,058,948
32	Operating Income - Water			
33	less: Interest Expense	L14		-25,222,123
34	Depreciation	L22		32,584,603
35	Amortization			
36	Deferred Taxes	Staff Acct. Schedule 9, L111		2,305,505
37	Funds from Operations (FFO)	Sum of L31-36		61,726,933
38				
39				
40				
41				
42				
43	Additional Financial Information Needed for Calculation of Ratios			
44	Capitalized Lease Obligations	EDE Accounts 227 + 243	692,938	568,209
45	Short-term Debt Balance	EDE Form 10-Q, p. 8	35,000,000	28,700,000
46	Short-term Debt Interest	EDE Accounts 417.891 + 431.400	1,418,588	1,163,242
47	Cash Interest Paid	Information Supplied by EDE	27,701,256	22,715,030
48	AFUDC Debt (capitalized interest)	EDE Form 10-Q, p. 4	86,841	71,210
49				
50	Adjustments Made by Rating Agencies for Off-Balance Sheet Obligations			
51	Debt Adj for Off-Balance Sheet Obligs			
52	Operating Lease Debt Equivalent	Information Supplied by EDE/S&P	48,323,160	39,624,991
53	Purchase Power Debt Equivalent	Information Supplied by EDE	23,676,840	19,415,009
54	Total OSB Debt Adjustment	L52 + L53	72,000,000	59,040,000
55				
56	Operating Lease Deprec Adjustment	Information Supplied by EDE/S&P	1,517,000	1,243,940
57				
58	Interest Adjustments for Off-Balance Sheet Obligations			
59	Present Value of Operating Leases	L52 * 10%	4,832,316	3,962,499
60	Purchase Power Debt Equivalent	L53 * 10%	2,367,684	1,941,501
61	Total OSB Interest Adjustment	L59 + L60	7,200,000	5,904,000

62				
63		Ratio Calculations		
64	Adjusted Interest Expense	$L14 + L46 + L61$		32,289,365
65	Adjusted Total Debt 6/30/06	$L11 + L12 + L44 + L45 + L54$		423,334,522
66	Adjusted Total Debt 6/30/05	Same as L65, but for prior year	431,231,000	353,609,420
67	Adjusted Total Capital	$L9 + L44 + L45 + L54$		769,256,000
68				
69	Adj. FFO Interest Coverage	$(L37 + L47 + L48 + L61)/(L14 + L48 + L61)$		2.90
70	Adj. FFO as a % of Average Total Debt	$(L37 + L56)/(\text{avg. of } L65 + L66)$		0.1621
71	Adj. Total Debt to Total Capital	$L65/L67$		0.5503
72				
73		Changes Required to Meet Ratio Targets		
74	Adj. FFO Interest Coverage Target			3.20
75	FFO Adjustment to Meet Target	$(L74 - L69) * L64$		9,743,830
76	Interest Adjustment to Meet Target	$L37 * (1/L74 - 1) - 1/L69 - 1)$		-4,460,386
77				
78	Adj. FFO as a % of Average Total Debt			0.195
79	FFO Adjustment to Meet Target	$(L78 - L70) * (\text{Avg of } L65 + L66)$		12,781,161
80	Debt Adjustment to Meet Target	$L37 * (1/L78 - 1/L70)$		-64,249,638
81				
82	Adj. Total Debt to Total Capital Target			56.50%
83	Debt Adjustment to Meet Target	$(L82 - L71) * L67$		11,295,118
84	Total Capital Adjustment to Meet Target	$L65/L82 - L67$		-19,991,359
85				
86		Amortization and Revenue Needed to Meet Targeted Ratios		
87	FFO Adj Needed to Meet Target Ratios	Maximum of L75, L79 or zero		12,781,161
88	Effective Income Tax Rate			0.3839
89	Deferred Income Taxes	$L87 * L88/(1 - L88)$		-7,964,109
90	Total Amortization Req for FFO Adj	$L87 - L89$		20,745,271
91				
92	* All references to Staff Acct. Schedules tie to schedules supporting amounts reflected in the			
93	True-up Accounting Schedules filed 9/27/06			

1	Calculation of Amortization to meet Financial Ratio Targets			9/27/2006
2	IEC Continuation Scenario			
3			Total	Juris
4			Company	Alloc
5	Additional Net Balance Sheet Investment			61,935,326
6	Rate Base	Staff Acct. Schedule 2 *		618,110,364
7	Jurisdictional Allocation for Capital			0.82
8				
9	Total Capital	L5+L6		680,045,690
10	Equity	Murray True-up Workpapers	0.5080	345,463,211
11	Trust Preferred	Murray True-up Workpapers	0.0539	36,654,463
12	Long-term Debt	Murray True-up Workpapers	0.4381	297,928,017
13	Cost of Debt	Murray True-up Workpapers		7.03%
14	Interest Expense	L12 * L13 (+\$4,250,000 (TOPRs))		25,194,340
15				
16	Electric Sales Revenue	Staff Acct. Schedule 9, L.1-3, + Rate Increase		292,854,336
17	Other Electric Operating Revenue	Staff Acct. Schedule 9, L.4-6		4,518,143
18	Water Revenue			
19	Operating Revenue	L16 + L17		297,372,479
20				
21	Operating and Maintenance Expense	Staff Acct. Schedule 9, L.95 (less cust. deposits)		205,737,911
22	Depreciation	Staff Acct. Schedule 9, L.96 + L100		32,584,603
23	Amortization			
24	Interest on Customer Deposits	Staff Acct. Schedule 10, Adj. S-70.3		542,569
25	Taxes Other than Income Taxes	Staff Acct. Schedule 9, L.101		11,240,091
26	Federal and State Income Taxes	Staff Acct. Schedule 9, L.112 (plus rate incr. impact)		8,996,577
27	Gains on Disposition of Plant			
28	Total Water Operating Expenses			
29	Total Electric/Water Operating Exp	Sum of L. 21-28		259,101,751
30				
31	Operating Income - Electric	L19 - L29		38,270,728
32	Operating Income - Water			
33	less: Interest Expense	L14		-25,194,340
34	Depreciation	L22		32,584,603
35	Amortization			
36	Deferred Taxes	Staff Acct. Schedule 9, L111		2,305,506
37	Funds from Operations (FFO)	Sum of L31-36		47,966,497
38				
39				
40				
41				
42				
43	Additional Financial Information Needed for Calculation of Ratios			
44	Capitalized Lease Obligations	EDE Accounts 227 + 243	692,938	568,209
45	Short-term Debt Balance	EDE Form 10-Q, p. 8	35,000,000	28,700,000
46	Short-term Debt Interest	EDE Accounts 417.891 + 431.400	1,418,588	1,163,242
47	Cash Interest Paid	Information Supplied by EDE	27,701,256	22,715,030
48	AFUDC Debt (capitalized interest)	EDE Form 10-Q, p. 4	86,841	71,210
49				
50	Adjustments Made by Rating Agencies for Off-Balance Sheet Obligations			
51	Debt Adj for Off-Balance Sheet Obligs			
52	Operating Lease Debt Equivalent	Information Supplied by EDE/S&P	48,323,160	39,624,991
53	Purchase Power Debt Equivalent	Information Supplied by EDE	23,676,840	19,415,009
54	Total OSB Debt Adjustment	L52 + I53	72,000,000	59,040,000
55				
56	Operating Lease Deprec Adjustment	Information Supplied by EDE/S&P	1,517,000	1,243,940
57				
58	Interest Adjustments for Off-Balance Sheet Obligations			
59	Present Value of Operating Leases	L52 * 10%	4,832,316	3,962,499
60	Purchase Power Debt Equivalent	L53 * 10%	2,367,684	1,941,501
61	Total OSB Interest Adjustment	L59 + L60	7,200,000	5,904,000

62				
63		Ratio Calculations		
64	Adjusted Interest Expense	$L14 + L46 + L61$		32,261,582
65	Adjusted Total Debt 6/30/06	$L11 + L12 + L44 + L45 + L54$		422,890,689
66	Adjusted Total Debt 6/30/05	Same as L65, but for prior year	431,231,000	353,609,420
67	Adjusted Total Capital	$L9 + L44 + L45 + L54$		768,353,899
68				
69	Adj. FFO Interest Coverage	$(L37 + L47 + L48 + L61)/(L14 + L48 + L61)$		2.46
70	Adj. FFO as a % of Average Total Debt	$(L37 + L56)/(\text{avg. of } L65 + L66)$		0.1267
71	Adj. Total Debt to Total Capital	$L65/L67$		0.5504
72				
73		Changes Required to Meet Ratio Targets		
74	Adj. FFO Interest Coverage Target			3.20
75	FFO Adjustment to Meet Target	$(L74 - L69) * L64$		23,894,638
76	Interest Adjustment to Meet Target	$L37 * (1/L74 - 1) - 1/L69 - 1)$		-11,065,513
77				
78	Adj. FFO as a % of Average Total Debt			0.195
79	FFO Adjustment to Meet Target	$(L78 - L70) * (\text{Avg of } L65 + L66)$		26,498,323
80	Debt Adjustment to Meet Target	$L37 * (1/L78 - 1/L70)$		-132,453,843
81				
82	Adj. Total Debt to Total Capital Target			56.50%
83	Debt Adjustment to Meet Target	$(L82 - L71) * L67$		11,229,264
84	Total Capital Adjustment to Meet Target	$L65/L82 - L67$		-19,874,804
85				
86		Amortization and Revenue Needed to Meet Targeted Ratios		
87	FFO Adj Needed to Meet Target Ratios	Maximum of L75, L79 or zero		26,498,323
88	Effective Income Tax Rate			0.3839
89	Deferred Income Taxes	$L87 * L88/(1 - L88)$		-16,511,453
90	Total Amortization Req for FFO Adj	$L87 - L89$		43,009,776
91				
92	* All references to Staff Acct. Schedules tie to schedules supporting amounts reflected in the			
93	True-up Accounting Schedules filed 9/27/06			