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**MISSOURI PUBLIC SERVICE COMMISSION**

**Case No. ER-2011-0028**

**DIRECT TESTIMONY**

**OF**

**MICHAEL ADAMS**

**On Behalf**

**Of**

**UNION ELECTRIC COMPANY d/b/a AmerenUE**

**St. Louis, Missouri  
September, 2010**

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1 **DIRECT TESTIMONY**

2 **OF**

3 **MICHAEL ADAMS**

4 **CASE NO. ER-2011-0028**

5 **I. INTRODUCTION AND WITNESS QUALIFICATIONS**

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

7 A. My name is Michael Adams. My business address is 293 Boston Post Road West, Suite 500,  
8 Marlborough, Massachusetts 01752.

9 **Q. By who are you employed?**

10 A. I am a Vice President with Concentric Energy Advisors, Inc. ("Concentric").

11 **Q. Please describe Concentric.**

12 A. Concentric is a management consulting and economic advisory firm focused on the North  
13 American energy and water industries. Concentric specializes in regulatory and litigation  
14 support, transaction-related financial advisory services, energy market strategies, market  
15 assessments, energy commodity contracting and procurement, economic feasibility studies,  
16 and capital market analyses and negotiations.

17 **Q. What are your responsibilities in your current position?**

18 A. As a consultant, my responsibilities include assisting clients in identifying and addressing  
19 business issues. My primary areas of focus have been regulatory-, financial- and accounting-  
20 related issues.

1 **Q. Please describe your education.**

2 A. I have a Master of Business Administration degree in Finance from the University of Illinois -  
3 Springfield and a Bachelor of Science degree in Accounting from Illinois College. I am a  
4 member of the American Institute of Certified Public Accountants and the Illinois Society of  
5 Certified Public Accountants.

6 **Q. Please describe your qualifications.**

7 A. I have over twenty-five years of direct experience in the public utility industry. I have worked  
8 for an investor-owned utility, a regulatory agency, and most recently as a consultant to the  
9 energy industry. From 1981 to 1983 I worked as an accountant for Illinois Power Company.  
10 From 1983 to 1995, I worked at the Illinois Commerce Commission. During my tenure at the  
11 Illinois Commerce Commission, I worked as an auditor and expert witness in rate  
12 proceedings; I developed and managed a management audit program; and I served as the  
13 Deputy Director of the agency. From 1995 to 2007, I worked for Navigant Consulting, Inc.  
14 As a Managing Director, I was actively involved in the firm's regulatory practice. In July  
15 2007, I joined Concentric Energy Advisors, Inc. as a Vice President.

16 **Q. Have you previously testified or sponsored reports before regulatory bodies?**

17 A. Yes. I have provided expert testimony or reports before the Arkansas Public Service  
18 Commission, the City of El Paso, Texas, the Federal Energy Regulatory Commission, the  
19 Hawaii Public Utility Commission, the Illinois Commerce Commission, the Maryland Public  
20 Service Commission, the Massachusetts Department of Telecommunications and Energy, the  
21 Missouri Public Service Commission, the New Hampshire Public Utilities Commission, the  
22 Oklahoma Corporation Commission, the Ontario Energy Board, the Pennsylvania Public

1 Utility Commission, and the Public Utilities Commission of Texas. My testimonies typically  
2 address issues related to cost of service/revenue requirement, accounting, or cost allocations.

3 **II. PURPOSE AND SCOPE**

4 **Q. What is the purpose of your direct testimony?**

5 A. My testimony discusses a lead-lag study prepared for Union Electric Company d/b/a  
6 AmerenUE's electric business ("AmerenUE" or the "Company") by Concentric that I used to  
7 develop cash working capital factors ("CWC factor"). The CWC factors are used by  
8 AmerenUE witness Gary S. Weiss to calculate the cash working capital requirements of the  
9 Company.

10 **Q. Please define what you mean by the phrase "cash working capital."**

11 A. Cash working capital is the amount of funds required to finance the day-to-day operations of  
12 the Company.

13 **Q. Are you sponsoring any schedules?**

14 A. Yes. I am sponsoring Schedule MJA-E1, which I will discuss later in my testimony.

15 **III. SUMMARY OF THE COMPANY'S CASH WORKING CAPITAL ANALYSIS**

16 **Q. For what period was the lead-lag study performed?**

17 A. The lead-lag study analyzed the Company's cash transactions and invoices for the twelve  
18 months ended March 31, 2010.

19 **Q. How should the results of the cash working capital analysis be treated for  
20 ratemaking purposes?**

21 A. The cash working capital requirements should be included as part of AmerenUE's rate  
22 base for ratemaking purposes.

1 **Q. Is the analysis of the revenue lags and expense leads typically referred to as a**  
2 **lead-lag study?**

3 A. Yes. Cash working capital requirements are generally determined by lead-lag studies that  
4 are used to analyze the lag time between the date customers receive service and the date  
5 that customers' payments are available to the company. This lag is offset by a lead time  
6 during which the company receives goods and services, but pays for them at a later  
7 date. The "lead" and "lag" are both measured in days. The dollar-weighted lead and  
8 lag days are then divided by 365 to determine a daily CWC factor. This CWC factor is  
9 then multiplied by the annual test year cash expenses to determine the amount of cash  
10 working capital required for operations. The resulting amount of cash working capital is  
11 then included as part of the company's rate base. The test year operating expenses to  
12 which the leads and lags were applied are described in the direct testimony of Mr. Weiss.

13 **Q. What are the various leads and lags that should be considered in a cash working**  
14 **capital analysis?**

15 A. Two broad categories of leads and lags should be considered: 1) lags associated with the  
16 collection of revenues owed to a company ("revenue lags") and 2) lead times associated  
17 with the payments for goods and services received by the company ("expense leads").

18 **Q. What is a revenue lag?**

19 A. A revenue lag refers to the elapsed time between the delivery of the company's product  
20 (i.e., electricity) and its ability to use the funds received as payment for the delivery of the  
21 product.

1 **Q. What is an expense lead?**

2 A. The expense lead refers to the elapsed time from when a good or service is provided to the  
3 company to the point in time when the company pays for the good or service and the funds  
4 are no longer available to the company.

5 **Q. What was the source of information you employed to determine the leads and lags  
6 in your cash working capital analysis?**

7 A. Information from Ameren Service Company's Accounts Payable, Customer Service,  
8 Human Resources, Payroll, and Tax systems was utilized. The information derived from  
9 these sources, together with analyses of specific invoices, led to the determination of the  
10 appropriate number of lead-lag days for AmerenUE's electric business.

11 **A. Revenue Lags**

12 **Q. Was one revenue lag applied to all of AmerenUE's revenues?**

13 A. No. Concentric calculated a base revenue lag that was applied to all cash operating  
14 revenues with the exception of pass-through taxes. A separate revenue lag was calculated  
15 and applied to all revenues associated with pass-through taxes.

16 **1. Base Revenue Lag**

17 **Q. How was the base revenue lag determined?**

18 A. The base revenue lag measures the number of days from the date service was rendered by  
19 the Company until the date payment was received from customers and such funds were  
20 deposited by the Company. In the calculation, the revenue lag was divided into four  
21 distinct components: 1) service lag; 2) billing lag; 3) collections lag; and 4) payment lag.

1           Considered together, these four components of the base revenue lag totaled 45.30 lag  
2           days. An explanation of each component of the base revenue lag follows.

3   **Q.    What is meant by service lag?**

4   A.    The service lag refers to the number of days from the mid-point of the service period to  
5           the meter reading date for that service period. Using the mid-point methodology, the  
6           average lag associated with the provisioning of service was 15.21 days (365 days in the  
7           year divided by 12 months divided by 2).

8   **Q.    What is meant by billing lag?**

9   A.    Billing lag refers to the average number of days from the date on which the meter was read  
10          until the customer was billed. The billing lag was determined by analyzing the  
11          Company's monthly billing schedules and meter reading records. The average billing lag  
12          was determined to be 1.00 days.

13   **Q.    What is meant by collections lag?**

14   A.    The collections lag refers to the average amount of time from the date when the customer  
15          received a bill to the date that the Company received payment from its customers. Based  
16          on weighted average data from the Company's Customer Service System and by  
17          considering accounts receivables balances by class of customer by days aged, the  
18          average collection lag was determined to be 27.44 days.

19   **Q.    How were uncollectible revenues treated in your analyses?**

20   A.    An allowance for uncollectible revenues was removed from the accounts receivables  
21          balances when calculating the collections lag. Based upon information provided by the  
22          Company, a provision of 0.4 percent was excluded from the aging analysis for each



1 bucket except the 90+ days bucket. A provision of 10 percent was excluded from the 90+  
2 days bucket.

3 **Q. What is meant by payment lag?**

4 A. Payment lag refers to the elapsed time between the Company's receipt of the customer's  
5 payment and its transmittal to the bank for collection from the customer's account.

6 **Q. What factors can influence the payment lag?**

7 A. The Company received payments from customers typically in one of four ways:  
8 1) by mail; 2) from payment centers; 3) by credit card; or, 4) via an Electronic  
9 Data Interchange ("EDI") mechanism. Based on data from a sample of daily cash  
10 processing reports and by considering the lag time associated with the various payment  
11 methods, the average payment lag was determined to be 1.65 days.

12 **Q. Please summarize the calculation of base revenue lag days.**

13 A. The calculation of the overall base revenue lag, by lag component, is summarized in the  
14 following table.

<b>Base Revenue Lag Component</b>	<b>Lag Days</b>
Meter Reading	15.21
Billing	1.00
Collections	27.44
Payment	1.65
Total Revenue Lag	45.30

1

2 **Q. Was the base revenue lag adjusted for off-system sales?**

3 A. Yes. Revenues from off-system sales were collected, on average, within 22.50 days.  
4 Therefore, a weighted average of the revenue lag for tariffed revenues and off-system  
5 sales was calculated. The resulting weighted revenue lag was determined to be  
6 42.19 days.

7 **2. Pass-Through Taxes Revenue Lag**

8 **Q. What is a pass-through tax?**

9 A. A pass-through tax refers to a tax assessed by a state or local taxing body for which the  
10 Company bills its customers and then collects and remits the customers' payments to the  
11 taxing body.

12 **Q. If the Company is merely serving as a billing and remittance agent for the taxing  
13 body, why is it appropriate to consider pass-through taxes in the lead-lag study?**

14 A. There can be a timing difference between the period that the Company collects the  
15 payment of such taxes and remits such payments to the taxing body. Therefore it is  
16 necessary to review these timing differences within the lead-lag study.

17 **Q. Does the revenue lag applied to pass-through taxes differ from the base revenue lag?**

18 A. Yes.

19 **Q. How does the revenue lag applied to pass-through taxes differ from the base  
20 revenue lag?**

1 A. The only difference between the base revenue lag and the revenue lag which is applied to  
2 the pass-through taxes is that the revenue lag applied to pass-through taxes excludes the  
3 service lag. Therefore, the revenue lag applied to pass-through taxes is 30.09 days.

4 **Q. Should a different revenue lag be applied to the pass-through tax revenues?**

5 A. Yes.

6 **Q. Please explain.**

7 A. In prior cases,<sup>1</sup> the Commission Staff has taken the position that pass-through taxes are  
8 not generated as a result of the provisioning of a service by the utility. Therefore, for  
9 purposes of this proceeding a revenue lag that excludes a lag associated with the  
10 provisioning of utility service has been applied to the pass-through tax revenues.

11 **Q. Are the revenues attributable to pass-through taxes collected in the same manner  
12 and at the same time as all other revenues?**

13 A. Yes. The Company's customers pay one bill. That bill (and thus the payment) includes  
14 both operating revenues associated with the provisioning of gas service as well as  
15 revenues associated with pass-through taxes.

16 **Q. What impact does the exclusion of the service lag have on the CWC calculation?**

17 A. The service lag represents the period of time during which the Company has provided a  
18 service for which it has not yet been compensated. Since the Company serves primarily  
19 as a collect and remit agent for the various taxing bodies, by excluding the service lag

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<sup>1</sup> Such proceedings include Case Nos. ER-2010-0036 (AmerenUE), ER-2008-0318 (AmerenUE), ER-2007-0291 (Kansas City Power & Light Company), ER-2008-0093 (The Empire District Electric Company), GR-2007-0208 (Laclede Gas Company), GR-2006-0422 (Missouri Gas Energy).

1 from the revenue lag applied to the pass-through taxes, the Company is reflecting that it  
2 has no out-of-pocket expenses for which it is awaiting payment.

3 **B. Expense Leads**

4 **Q. What expense-related leads were considered in the lead-lag analysis?**

5 A. Lead times associated with the following expense categories were considered in the lead-  
6 lag study: a) employee pensions and benefits; b) base payroll; c) FICA (social security)  
7 and other withholdings; d) cost of fuel – nuclear, coal, oil and gas; e) other operations and  
8 maintenance expenses; f) general taxes other than income taxes excluding pass-through  
9 taxes; g) pass-through taxes; h) federal income taxes; i) state income taxes; and,  
10 j) interest on long-term debt.

11 **Q. What types of leads associated with the Company's Employee Benefit programs were  
12 considered in the analysis?**

13 A. The estimated lead times associated with the following major categories of the Company's  
14 employee benefit programs were considered: a) group life insurance; b) group health  
15 insurance including claims processing, claims payment, and administration costs;  
16 c) contributions to the Company's pension fund; d) Other Post-Employment Benefits  
17 costs; and, e) the Company's 401-K plan. Taken together, these programs had a dollar-  
18 weighted lead time of 33.82 days for the twelve months ended March 31, 2010.

19 **Q. What was the expense lead associated with the Company's group life insurance  
20 program?**

21 A. The analysis of invoices paid to the Company's providers of group life insurance resulted in a  
22 weighted average lead time of 24.99 days.

1 **Q. What were the expense leads associated with the Company's group health insurance**  
2 **programs?**

3 A. The Company's group health insurance program had three major categories of activities:  
4 a) claims processing, i.e., from the time a claim was filed to the time it was processed;  
5 b) claims payment, i.e., from the time the provider provided the claim to the Company for  
6 reimbursement and the time the reimbursement occurred; and c) administration-related  
7 expenses. Based on annual summaries of performance provided to the Company by its group  
8 health plan administrators, the claims processing period was determined to be 5.22 days.  
9 Additionally, based on actual service requests and electronic payment instructions  
10 from the Company's Human Resources Department, the claims reimbursement time was  
11 determined to be 9.41 days. Finally, based on an examination of invoices and payment  
12 instructions from within the Company's accounts payable system, a lead time of 3.34 days  
13 was derived for group health administration expenses.

14 **Q. What was the expense lead time associated with the Company's contribution to its**  
15 **pension plan?**

16 A. The Company made quarterly contributions to its pension plan during the twelve months  
17 ended March 31, 2010. Taking this information into account and using the actual date  
18 and dollar contributions made by the Company, a pension expense lead time of  
19 56.68 days was determined.

20 **Q. What was the expense lead associated with the funding of the Company's OPEB**  
21 **fund?**

1 A. The Company made semi-annual contributions to the OPEB fund during the twelve  
2 months ended March 31, 2010. Based upon the actual funding dates, the expense lead  
3 was determined to be 83.25 days.

4 **Q. What was the expense lead associated with the Company's match associated with the**  
5 **401-K plan?**

6 A. The expense lead time associated with the Company's 401-K plan contributions was  
7 14.19 days.

8 **Q. Provide an explanation of the leads associated with the Company's payroll**  
9 **expenses.**

10 A. Payroll lead days were determined by calculating the nominal and weighted lead time  
11 by pay period and weighting the resulting lead days by the amounts paid out by the  
12 Company to cover their payroll obligations. The resulting total on a dollar-weighted  
13 basis was 10.28 days.

14 **Q. Please explain the lead effects associated with FICA and other federal and state**  
15 **withholding taxes.**

16 A. The Company electronically transfers the dollar amounts associated with the employee  
17 and employer share of Federal Insurance Contributions and state withholding taxes to the  
18 appropriate federal and state authorities on their respective due dates – the next business  
19 day to the federal authorities, and the third business day following the end of a period  
20 (periods end on the 7th, 15th, 22nd, and the last day of the month) to the state taxing  
21 authorities. Taking this payment schedule into account and considering weekends and bank  
22 holidays, an incremental lead time of 2.37 days was estimated for federal withholding and

1           2.42 days for social security or FICA-related transactions. This lead time is "incremental"  
2           in the sense that it is added to the lead time on base payroll to derive the total amount of  
3           lead time associated with federal withholding taxes. An incremental lead time of 5.94 days  
4           was determined for transactions involving the State of Missouri. When added to the base  
5           payroll lead time, these lead time estimates total 12.66 days for federal withholding  
6           remittances, 12.70 days for FICA remittances to the federal government, and 16.22 days  
7           for remittances of state withholdings.

8           **Q. How were withholdings associated with Supplemental Life Insurance and**  
9           **Accidental Death and Dismemberment ("AD&D) Insurance, Savings Investment**  
10           **Plan contributions, and employee 401-k contributions handled in the lead-lag**  
11           **study?**

12          A. The lead-lag study reflects the remittance of the employees' payment of  
13          Supplemental Life Insurance and AD&D insurance premiums to the providers  
14          employing actual historical data for the twelve months ended March 31, 2010. The  
15          lead days were determined to be 40.28 for Supplemental Life Insurance and AD&D  
16          insurance premiums. The lead-lag study also reflects contributions made to the  
17          Savings Investment Plan and employee 401-k contributions. The lead days were  
18          determined to be 17.28 days for the Savings Investment Plan contributions and  
19          14.19 days for the employee portion of 401-k contributions.

20          **Q. How was the Vacation Accrual handled in the lead-lag study?**

21          A. In AmerenUE's last electric rate proceeding (Case No. ER-2010-0036), Staff  
22          proposed that the variation in the level of the vacation accrual for contract employees

1           between the test year and the prior year be included in the lead-lag study. The accrual  
2           variation for calendar year 2009 produced a negative result; therefore, instead of  
3           reducing the lead-lag days, the vacation accrual was excluded from the analysis.

4       **Q.    What are other operations and maintenance expenses and what lead times**  
5       **were associated with such expenses?**

6       A.    The Company engages in transactions with other vendors (not associated with pensions,  
7           benefits, payroll, fuel, or taxes) for a variety of purposes including facility maintenance,  
8           system maintenance, and customer service. Invoices from providers of such services were  
9           analyzed in order to estimate a lead time associated with payment for services related to  
10          other operations and maintenance activities. The analysis indicates that on average,  
11          invoices were paid by the Company 42.11 days after receipt.

12      **Q.    What is the lead time on expenses associated with the Company's nuclear fuel?**

13      A.    The Company purchases and owns all of its current nuclear fuel. At the time the nuclear fuel  
14          is purchased it is included in construction work in progress ("CWIP") and accrues an  
15          Allowance for Funds Used During Construction ("AFUDC"). The nuclear fuel stays in  
16          CWIP until it arrives at the reactor site. At that time the nuclear fuel is in service and the  
17          AFUDC ceases. The nuclear fuel is then amortized to expense each month as it is burned.  
18          The average unburned nuclear fuel is included in the materials and supplies inventory in rate  
19          base. Therefore, the only lag is between the monthly burn charged to expenses and when this  
20          expense is recovered in revenues. Thus the service lag is used for the expense lead.

21      **Q.    How did you determine the expense lead time associated with the Company's purchases**  
22      **of coal and related services?**



1 A. Invoices related to purchases of coal, purchases of transportation services, and other sundry  
2 coal-related items were examined to determine the expense lead time associated with the  
3 Company's purchases of coal and related services. When weighted by the dollar amounts  
4 shown on the invoices examined, a weighted average expense lead time of 21.41 days was  
5 determined.

6 **Q. What is the expense lead time associated with the Company's purchases of oil to**  
7 **support its electric operations?**

8 A. Based on an examination of invoices from the four major suppliers of oil to the Company, a  
9 weighted average lead time of 10.31 days was determined.

10 **Q. What is the expense lead time associated with the Company's purchases of natural gas**  
11 **to support its electric operations?**

12 A. Based on an examination of invoices from commodity and pipeline suppliers to the  
13 Company, a weighted expense lead time of 36.68 days was determined.

14 **Q. What types of leads were associated with the Company's purchases of**  
15 **electricity?**

16 A. AmerenUE makes purchases as required from the Midwest Independent Transmission  
17 System Operator, Inc. (or "MISO"). Based on an examination of the service periods  
18 and payment dates for the Company's source of purchased power, a lead time of  
19 22.50 days was determined.

20 **Q. What are the various general taxes considered in the analysis?**

21 A. The following general taxes were considered in the study: a) Federal Unemployment  
22 Taxes; b) State Unemployment Taxes; c) Corporation Franchise Taxes; d) Real Estate

1 and Property Taxes; e) Missouri Sales Tax; f) Missouri and Iowa Use Taxes; g) St. Louis  
2 Corporate Earnings and Payroll Expense Taxes; and, h) Gross Receipts Taxes. Where  
3 taxes were required to be paid to a single taxing authority pursuant to a set schedule, the  
4 statutory payment dates were considered in the analysis.

5 **Q. Explain the lead effects associated with each type of non-pass through general taxes**  
6 **considered in the analysis.**

7 A. The treatment of each category of general taxes in the study is described below:

8 a) Federal Unemployment Taxes: Federal unemployment taxes are due  
9 quarterly by the last day of the month following the end of the quarter.  
10 Taking this information into account, a weighted average expense lead  
11 time of 76.38 days was determined.

12 b) State Unemployment Taxes: The Company does not pay state  
13 unemployment taxes on behalf of its employees in the State of Missouri,  
14 but does pay unemployment taxes on behalf of AmerenUE employees that  
15 reside in the States of Illinois and Iowa and who work on AmerenUE  
16 properties in those states. Like its federal counterpart, state unemployment  
17 taxes are due by the last day of the month following the end of the quarter.  
18 Taking this information into account, a weighted average expense lead  
19 time of 76.38 days was determined.

20 c) Corporation Franchise Taxes: The State of Missouri levies a corporation  
21 franchise tax on companies with in-state assets of \$1,000,000 or more.

1           The tax is due on April 15<sup>th</sup> of the current year. Based on this information  
2           a negative expense lead time of 77.50 days was determined.

3           d) Real Estate and Property Taxes: All current-year property taxes in  
4           Missouri are due on December 31<sup>st</sup> of the current year. Taking this  
5           schedule into consideration, a dollar-weighted expense lead of 182.50 days  
6           was calculated.

7           e) Missouri Sales Tax: Missouri sales tax is payable to the Missouri  
8           Department of Revenue and is calculated as a percent of billings less a  
9           2 percent timely payment allowance. These taxes are due monthly by the  
10          20<sup>th</sup> of the month following except for the payments at the end of the  
11          quarter which are paid on the last day of the month following. Taking this  
12          information into account, and including a half month of service lead time,  
13          a weighted expense lead time of 38.79 days was determined.

14          f) Missouri and Iowa Use Taxes: Missouri and Iowa use taxes are payable to  
15          the Missouri and Iowa Departments of Revenue for purchases made by the  
16          Company from out-of-state vendors (and are thus known as compensating  
17          taxes). This tax is paid quarterly and is due on the last day of the month  
18          following the end of a quarter. Based on when payments are due, a  
19          weighted lead time of 76.38 days was calculated.

20          g) St. Louis Corporate Earnings and Payroll Expense Tax: The Company pays  
21          corporate earnings taxes to the City of St. Louis. This tax is paid by check  
22          to the City of St. Louis annually on April 1<sup>st</sup> for the previous year. Taking

1                   this information into account, the expense lead time associated with  
2                   corporate earnings taxes was determined to be 273.50 days.

3   **Q.    What pass-through taxes are included in the CWC analysis?**

4   A.    The only pass-through tax considered in the CWC analysis was Gross Receipts Taxes.

5   **Q.    Please describe the timing of the payment of the Gross Receipt Taxes.**

6   A.    In the State of Missouri, gross receipts taxes are payable to municipalities and are  
7           typically estimated as a percent of billings to customers within the municipality. The  
8           Company typically pays these taxes on the last day of the month following the end of a  
9           monthly, quarterly, semi-annual, or annual tax period depending on the municipality.  
10          Based on the specific tax periods of the various municipalities, a dollar-weighted gross  
11          receipts tax expense lead time of 27.59 days was calculated.

12 **Q.    Does the lead time for gross receipts taxes include a service lead?**

13 A.    No. Since no service lag was included in the revenue lag assigned to pass-through taxes,  
14          there has been no service lead attributed to the gross receipts taxes.

15 **Q.    Please explain.**

16 A.    Both the service lag and the service lead are associated with the timing of the provisioning  
17          of service. If there is no service lag on the revenue side there can be no service lead on the  
18          expense side. Therefore, for consistency purposes, I have excluded both the service lag  
19          and service lead from the analysis of the pass-through taxes.

20 **Q.    How did your study address federal income taxes?**

21 A.    The lead time associated with federal income tax payments was based on the provisions of  
22          the Internal Revenue Code that require estimated tax payments of 25 percent of total

1 income taxes due on April 15, June 15, September 15, and December 15 of the current  
2 year. Taking this schedule into consideration a lead time of 37.88 days for federal income  
3 tax payments made by the Company was determined.

4 **Q. How did the study address state income taxes?**

5 A. State income taxes follow a pattern similar to federal taxes. Thus, assuming quarterly  
6 payments due on April 15, June 15, September 15, and December 15 of the current year,  
7 an expense lead time of 37.88 days was determined.

8 **Q. Provide a description of how lead times associated with the Company's interest  
9 expenses were addressed by the study.**

10 A. The Company's interest payments on its long-term bonds were made from current  
11 revenues. Thus, there was a lead (or lag) between the date the interest payments were  
12 collected from customers and the date when such amounts were paid to financial  
13 institutions. The Company generally made interest payments on its long-term debt twice a  
14 year at varying times. Using actual due dates on interest payments, a dollar-weighted lead  
15 of 90.69 days for interest payments were determined.

16 **Q. Please describe Schedule MJA-E1.**

17 A. Schedule MJA-E1 summarizes the leads and lags discussed within my direct testimony.  
18 These leads and lags are used by Company witness Weiss to calculate the Company's cash  
19 working capital requirements.

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

21 A. Yes, it does.

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the Matter of Union Electric Company )  
d/b/a AmerenUE for Authority to File )  
Tariffs Increasing Rates for Electric ) Case No. ER-2011-0028  
Service Provided to Customers in the )  
Company's Missouri Service Area. )

**AFFIDAVIT OF MICHAEL J. ADAMS**

**STATE OF ILLINOIS** )  
 ) ss  
**CITY OF SPRINGFIELD** )

Michael J. Adams, being first duly sworn on his oath, states:

1. My name is Michael J. Adams. My office is in Marlborough, Massachusetts, and I am a Vice President with Concentric Energy Advisors, Inc.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 19 pages, and Schedule MJA-E1, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Michael J. Adams  
Michael J. Adams

Subscribed and sworn to before me this 1<sup>st</sup> day of September, 2010.

Katherine P. Adams  
Notary Public

My commission expires:



AmerenUE  
**Cash Working Capital Requirement**  
For the Twelve Months Ended March 31, 2010

Line No.	Description (A)	Revenue Lag (B)	Expense Lead (C)	Net Lag (D)	CWC Factor (E)
1	Pensions & Benefits	42.19	(33.82)	8.38	0.0230
2	Payroll and Withholdings	42.19	(11.70)	30.49	0.0835
3	Employer FICA Contribution	42.19	(12.70)	29.49	0.0808
4	Other Operations and Maintenance Expenses	42.19	(42.11)	0.08	0.0002
5	Federal Unemployment Taxes	42.19	(76.38)	(34.18)	(0.0936)
6	State Unemployment Taxes	42.19	(76.38)	(34.18)	(0.0936)
7	Corporation Franchise Taxes	42.19	77.50	119.69	0.3279
8	Property/Real Estate Taxes	42.19	(182.50)	(140.31)	(0.3844)
9	Sales Tax	42.19	(38.79)	3.40	0.0093
10	Use Tax	42.19	(76.38)	(34.18)	(0.0936)
11	Gross Receipts Taxes	29.06	(27.59)	1.47	0.0040
12	Federal Income Tax	42.19	(37.88)	4.32	0.0118
13	State Income Tax	42.19	(37.88)	4.32	0.0118
14	St Louis Corporate Earnings Tax	42.19	(273.50)	(231.31)	(0.6337)
15	St Louis Payroll Expense Tax	42.19	(76.38)	(34.18)	(0.0936)
16	Fuel - Nuclear	42.19	(15.21)	26.99	0.0739
17	Fuel - Coal	42.19	(21.41)	20.78	0.0569
18	Fuel - Oil	42.19	(10.31)	31.88	0.0874
19	Fuel - Gas	42.19	(36.68)	5.51	0.0151
20	Interest Expense	42.19	(90.69)	(48.49)	(0.1329)
21	Uncollectible Expense	42.19	(42.19)	-	-
22	Purchased Power	42.19	(22.50)	19.69	0.0540