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Witness: Michael J. Adams  
Sponsoring Party: Union Electric Company  
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**MISSOURI PUBLIC SERVICE COMMISSION**

**Case No. ER-2012-0166**

**DIRECT TESTIMONY**

**OF**

**MICHAEL J. ADAMS**

**On Behalf**

**Of**

**UNION ELECTRIC COMPANY**

**d/b/a AMEREN MISSOURI**

**St. Louis, Missouri  
February 2012**

## TABLE OF CONTENTS

<b>I. INTRODUCTION AND WITNESS QUALIFICATIONS.....</b>	<b>1</b>
<b>II. PURPOSE AND SCOPE.....</b>	<b>3</b>
<b>III. SUMMARY OF THE COMPANY’S CASH WORKING CAPITAL ANALYSIS .....</b>	<b>4</b>
A. Revenue Lags .....	6
1. Base Revenue Lag .....	6
2. Pass-Through Taxes Revenue Lag .....	10
B. Expense Leads .....	12

1 **DIRECT TESTIMONY**

2 **OF**

3 **MICHAEL J. ADAMS**

4 **CASE NO. ER-2012-0166**

5 **I. INTRODUCTION AND WITNESS QUALIFICATIONS**

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

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

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

10 A. I am a Senior 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 an MBA in Finance from the University of Illinois - Springfield and a BS in  
3           Accounting from Illinois College. I am a member of the American Institute of Certified  
4           Public Accountants and the Illinois Society of Certified Public Accountants.

5    **Q.     Please describe your qualifications.**

6    A.     I have over twenty-five years of direct experience in the public utility industry. I have worked  
7           for an investor-owned utility, a regulatory agency, and most recently as a consultant to the  
8           energy industry. From 1981 to 1983 I worked as an accountant for Illinois Power Company.  
9           From 1983 to 1995, I worked at the Illinois Commerce Commission. During my tenure at the  
10          Illinois Commerce Commission, I worked as an auditor and expert witness in rate  
11          proceedings; I developed and managed a management audit program; and I served as the  
12          Deputy Director of the agency. From 1995 to 2007, I worked for Navigant Consulting, Inc.  
13          As a Managing Director, I was actively involved in the firm's regulatory practice. In July  
14          2007, I joined Concentric Energy Advisors, Inc. as a Vice President. I was promoted to my  
15          current position in 2010.

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

1 Oklahoma Corporation Commission, the Ontario Energy Board, the Pennsylvania Public  
2 Utility Commission, the Public Utilities Commission of Texas and the State Corporation  
3 Commission of Virginia. My testimonies typically address issues related to cost of  
4 service/revenue requirement, accounting, or cost allocations.

## 5 II. PURPOSE AND SCOPE

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

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

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

13 A. Cash working capital ("CWC") is the amount of funds required to finance the day-to-day  
14 operations of the Company.

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

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

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

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

A. The lead-lag study analyzed the Company's cash transactions and invoices for the twelve months ended September 30, 2011.

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

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

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

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

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

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

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

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

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

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

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

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

**A. Revenue Lags**

**Q. Was one revenue lag applied to all of the Ameren Missouri's revenues?**

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

**1. Base Revenue Lag**

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

A. The base revenue lag measures the number of days from the date service was rendered by the Company until the date payment was received from customers and such funds were deposited by the Company. In the calculation, the revenue lag was divided into three distinct components: 1) service lag; 2) billing lag; and 3) collections lag. Considered together, these three components of the base revenue lag totaled 44.95 lag days. An explanation of each component of the base revenue lag follows.

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

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

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

2    A.     Billing lag refers to the average number of days from the date on which the meter was read  
3           until the customer was billed. The billing lag was determined by analyzing the  
4           Company's monthly billing schedules and meter reading records. The average billing lag  
5           was determined to be 0.99 days.

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

7    A.     The collections lag refers to the average amount of time from the date when the customer  
8           received a bill to the date that the Company received payment from its customers. Based  
9           on weighted average data from the monthly CURCT617 Accounts Receivables  
10          Breakdown Report from the Company's Customer Service System and by considering  
11          accounts receivables balances by class of customer by days aged, the average collection  
12          lag was determined to be 28.75 days.

13   **Q.     Please describe the report that was used to determine the collections lag.**

14   A.     The CURCT617 Accounts Receivable Breakdown Report was designed to meet  
15          business needs specific to tracking accounts receivables in the general ledger. The  
16          report reflects the age of the accounts receivable balance for current or within 30 days  
17          outstanding, 30-59 days outstanding, 60-89 days outstanding, 90-119 days outstanding,  
18          and 120 or more days outstanding. The report also captures data related to specific  
19          general ledger accounts including receivables that are subject to payment agreements,  
20          budget billing deferred amounts, and credits or overpayments. The report is used by  
21          different Ameren departments for analyses such as reconciliation by auditors, control  
22          balancing, and predicting future uncollectibles. The data in the report most accurately

1 reflects the data in Ameren's general ledger system since the source of the data for the  
2 report and the general ledger accounts is from the Customer Service System ("CSS").  
3 This report has been used by the Company to manage receivables since May 2010.

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

5 A. An allowance for uncollectible revenues was removed from the accounts receivables  
6 balances when calculating the collections lag. Based upon information provided by the  
7 Company, a provision of 0.42 percent was excluded from the aging analysis for each  
8 bucket except the 90-120 days and 120+ days buckets. A provision of 10 percent was  
9 excluded from the 90-120 days and 120+ days buckets.

10 **Q. Please explain how the provision for uncollectible revenues was determined.**

11 A. The level of uncollectibles was forecasted by the Company to establish a reserve for bad debt.  
12 A 0.42 percent provision for uncollectibles was applied to the 0-30 days, 30-60 days, and 60-  
13 90 days buckets. A 10 percent provision for uncollectibles was applied to the 90-120 days and  
14 120+ days buckets. The uncollectibles percentages were developed by the General  
15 Accounting and Credit and Collections functions and reflect customers' current payment  
16 habits. The Company uses historical data to develop the bad debt estimate, and also takes into  
17 account current economic and load forecasts to adjust the estimates accordingly. The  
18 weighted average bad debt percentage for the test year, applying 0.42% to each of the aged  
19 buckets other than the 90-120 days and 120+ days buckets and 10% to the 90-120 days and  
20 120+ days buckets, was 1.36%. This amount reflects the bad debt percentage removed from  
21 the accounts receivable balances in the Company's Collections Lag calculation.

The actual bad debt percentage for Ameren Missouri Electric during 2010, dividing FERC Account 904 by total electric operating revenues, was 0.34 percent. Therefore, the Company has excluded a conservative estimate (i.e., a higher percentage) of uncollectible expenses from the test year accounts receivables than was actually experienced during the year.

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

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

Base Revenue Lag Component	Lag Days
Meter Reading	15.21
Billing	0.99
Collections	28.75
Total Revenue Lag	44.95

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

A. Yes. Revenues from off-system sales were collected, on average, within 25.83 days. Therefore, a weighted average of the revenue lag for tariffed revenues and off-system sales was calculated. The resulting weighted revenue lag was determined to be 42.66 days.

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

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

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

**Q. Which taxes is the Company treating as pass-through taxes for purposes of the CWC analysis?**

A. The Gross Receipts Taxes are considered to be pass-through taxes for purposes of the CWC analysis.

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

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

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

A. Yes. The only difference between the base revenue lag and the revenue lag applied to the pass-through taxes is that the revenue lag applied to pass-through taxes excludes the service lag. Therefore, the revenue lag applied to pass-through taxes is 29.74 days.

1    **Q.     Why is it appropriate to exclude the service lag from the calculation of the revenue**  
2           **lag for pass-through taxes?**

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

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

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

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

13   A.     The service lag represents the period of time during which the Company has provided a  
14          service for which it has not yet been compensated. Since the Company serves primarily  
15          as a billing and remittance agent for the various taxing bodies, by excluding the service  
16          lag from the revenue lag applied to the pass-through taxes, the Company is reflecting that  
17          it has no out-of-pocket expenses for which it is awaiting payment.

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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).

**B. Expense Leads**

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

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

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

A. The estimated lead times associated with the following major categories of the Company's employee benefit programs were considered: a) group life insurance; b) group health insurance including claims processing, claims payment, and administration costs; c) contributions to the Company's pension fund; d) Other Post-Employment Benefits costs; and e) the Company's 401-K plan. Taken together, these programs had a dollar-weighted lead time of 32.02 days.

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

A. The analysis of invoices paid to the Company's providers of group life insurance resulted in a 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 to 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 5.19 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 10.66 days. Finally, based on an examination of invoices and payment  
12 instructions from within the Company's accounts payable system, a lead time of 2.38 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 September 30, 2011. Taking this information into account and using the actual  
18 date and dollar contributions made by the Company, a pension expense lead time of  
19 45.74 days was determined.

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

3 A. The Company made semi-annual contributions to the OPEB fund during the twelve  
4 months ended September 30, 2011. Based upon the actual funding dates, the expense  
5 lead was determined to be 74.80 days.

6 **Q. What was the expense lead associated with the Company's match associated with the**  
7 **401-K plan?**

8 A. The expense lead time associated with the Company's 401-K plan contributions was  
9 14.08 days.

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

11 A. Payroll lead days were determined by calculating the nominal and weighted lead time  
12 by pay period and weighting the resulting lead days by the amounts paid out by the  
13 Company to cover its payroll obligations. The resulting total on a dollar-weighted  
14 basis was 12.29 days.

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

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

1 holidays, an incremental lead time of 2.41 days was estimated for federal withholding and  
2 2.44 days for social security or FICA-related transactions. This lead time is "incremental"  
3 in the sense that it is added to the lead time on base payroll to derive the total amount of  
4 lead time associated with federal withholding taxes. An incremental lead time of 5.97 days  
5 was determined for transactions involving the State of Missouri. When added to the base  
6 payroll lead time, these lead time estimates total 12.69 days for federal withholding  
7 remittances, 12.73 days for FICA remittances to the federal government, and 16.26 days  
8 for remittances of state withholdings.

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

13 A. The lead-lag study reflects the remittance of the employees’ payment of  
14 Supplemental Life Insurance and AD&D insurance premiums for the twelve months  
15 ended September 30, 2011. The lead days were determined to be 40.28 days for  
16 Supplemental Life Insurance and AD&D insurance premiums. The lead-lag study  
17 also reflects contributions made to the Savings Investment Plan and employee 401-k  
18 contributions. The lead days were determined to be 17.28 days for the Savings  
19 Investment Plan contributions and 14.08 days for the employee portion of 401-k  
20 contributions.

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

2   A.     In Ameren Missouri's recent electric rate proceeding, Case No. ER-2010-0036, Staff  
3           proposed that the variation in the level of the vacation accrual for contract employees  
4           between the test year and the prior year be included in the lead-lag study. The lead-  
5           lag study reflects the vacation accrual variation for the twelve months ending  
6           September 30, 2011 and applies an expense lead of 365 days.

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

9   A.     The Company engages in transactions with other vendors (not associated with pensions,  
10          benefits, payroll, fuel, or taxes) for a variety of purposes including facility maintenance,  
11          system maintenance, and customer service. Invoices from providers of such services were  
12          analyzed in order to estimate a lead time associated with payment for services related to  
13          other operations and maintenance activities. The analysis indicates that on average,  
14          invoices were paid by the Company 36.41 days after receipt.

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

16   A.     The Company purchases and owns all of its current nuclear fuel. At the time the nuclear fuel  
17          is purchased it is included in construction work in progress ("CWIP") and accrues an  
18          Allowance for Funds Used During Construction ("AFUDC"). The nuclear fuel stays in  
19          CWIP until it arrives at the reactor site. At that time the nuclear fuel is in service and the  
20          AFUDC ceases. The nuclear fuel is then amortized to expense each month as it is burned.  
21          The average unburned nuclear fuel is included in the materials and supplies inventory in rate

1 base. Therefore, the only lag is between the monthly burn charged to expenses and when this  
2 expense is recovered in revenues. Thus the service lag (i.e., 15.21 days) is used for the  
3 expense lead.

4 **Q. What is the expense lead time associated with the Company's contributions to the**  
5 **nuclear decommissioning trust fund?**

6 A. The Company made quarterly contributions to the nuclear decommissioning trust fund during  
7 the test year. Based on an examination of the contributions to the trust, a weighted average  
8 lead time of 70.63 days was determined.

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

11 A. Invoices related to purchases of coal were examined to determine the expense lead time  
12 associated with the Company's coal purchases. When weighted by the dollar amounts shown  
13 on the invoices examined, a weighted average expense lead time of 17.14 days was  
14 determined.

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

17 A. Based on an examination of invoices from the four major suppliers of oil to the Company, a  
18 weighted average lead time of 12.70 days was determined.

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

3 A. Based on an examination of invoices from commodity and pipeline suppliers to the  
4 Company, a weighted expense lead time of 40.36 days was determined.

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

7 A. Ameren Missouri makes purchases as required from the Midwest Independent  
8 Transmission System Operator, Inc. (or "MISO") and from the Pioneer Prairie Wind  
9 Farm. Based on an examination of the service periods and payment dates for the  
10 Company's sources of purchased power, a weighted lead time of 25.83 days was  
11 determined.

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

13 A. The following general taxes were considered in the study: a) Federal Unemployment  
14 Taxes; b) State Unemployment Taxes; c) Corporation Franchise Taxes; d) Real Estate  
15 and Property Taxes; e) Missouri Sales Tax; f) Missouri and Iowa Use Taxes; g) St. Louis  
16 Payroll Expense Taxes; and, h) Gross Receipts Taxes. Where taxes were required to be  
17 paid to a single taxing authority pursuant to a set schedule, the statutory payment dates  
18 were considered in the analysis.

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

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

- 1           a)     Federal Unemployment Taxes: Federal unemployment taxes are due  
2                     quarterly by the last day of the month following the end of the quarter.  
3                     Taking this information into account, a weighted average expense lead  
4                     time of 76.38 days was determined.
- 5           b)     State Unemployment Taxes: The Company does not pay state  
6                     unemployment taxes on behalf of its employees in the State of Missouri,  
7                     but does pay unemployment taxes on behalf of Ameren Missouri  
8                     employees that reside in the States of Illinois and Iowa and who work on  
9                     Ameren Missouri properties in those states. Like its federal counterpart,  
10                    state unemployment taxes are due by the last day of the month following  
11                    the end of the quarter. Taking this information into account, a weighted  
12                    average expense lead time of 76.38 days was determined.
- 13          c)     Corporation Franchise Taxes: The State of Missouri levies a corporation  
14                     franchise tax on companies with in-state assets of \$1,000,000 or more.  
15                     The tax is due on April 15<sup>th</sup> of the current year. Based on this information  
16                     a negative expense lead time of 77.50 days was determined.
- 17          d)     Real Estate and Property Taxes: All current-year property taxes in  
18                     Missouri are due on December 31<sup>st</sup> of the current year. Taking this  
19                     schedule into consideration, a dollar-weighted expense lead of 182.50 days  
20                     was calculated.
- 21          e)     Missouri Sales Tax: Missouri sales tax is payable to the Missouri  
22                     Department of Revenue and is calculated as a percent of billings less a

1                   2 percent timely payment allowance. These taxes are due monthly by the  
2                   20<sup>th</sup> of the month following except for the payments at the end of the  
3                   quarter which are paid on the last day of the month following. Taking this  
4                   information into account, and including a half month of service lead time,  
5                   a weighted expense lead time of 38.79 days was determined.

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

12          g)   St. Louis Payroll Expense Tax: The Company pays payroll expense taxes  
13                  to the City of St. Louis. This tax is paid by check to the City of St. Louis  
14                  quarterly on the last day of the month following the end of the quarter.  
15                  Taking this information into account, the expense lead time associated with  
16                  payroll expense taxes was determined to be 76.38 days.

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

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

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

20   A.    In the State of Missouri, gross receipts taxes are payable to municipalities and are  
21           typically estimated as a percent of billings to customers within the municipality. The  
22           Company typically pays these taxes on the last day of the month following the end of a

1 monthly, quarterly, semi-annual, or annual tax period depending on the municipality.

2 Based on the specific tax periods of the various municipalities, a dollar-weighted gross  
3 receipts tax expense lead time of 27.54 days was calculated.

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

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

7 **Q. Please explain.**

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

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

13 A. The lead time associated with federal income tax payments was based on the provisions of  
14 the Internal Revenue Code that require estimated tax payments of 25 percent of total  
15 income taxes due on April 15, June 15, September 15, and December 15 of the current  
16 year. Taking this schedule into consideration a lead time of 37.88 days for federal income  
17 tax payments made by the Company was determined.

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

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

1 **Q. How did the study address the St. Louis Corporate Earnings Tax?**

2 A. The Company pays corporate earnings taxes to the City of St. Louis. This tax is  
3 paid by check to the City of St. Louis annually on April 1<sup>st</sup> for the previous year.  
4 Taking this information into account, the expense lead time associated with  
5 corporate earnings taxes was determined to be 273.50 days.

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

8 A. The Company's interest payments on its long-term bonds were made from current  
9 revenues. Thus, there was a lead (or lag) between the date the interest payments were  
10 collected from customers and the date when such amounts were paid to financial  
11 institutions. The Company generally made interest payments on its long-term debt twice a  
12 year at varying times. Using actual due dates on interest payments, a dollar-weighted lead  
13 of 90.76 days for interest payments were determined.

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

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

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

19 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a )  
Ameren Missouri's Tariffs to Increase Its Revenues ) Case No. ER-2012-0166  
for Electric Service. )

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 and my office is located in Marlborough, Massachusetts and I am Senior 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 Ameren Missouri consisting of 22 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 1st day of February, 2012.

Maegan A. Powell  
Notary Public

My commission expires:

September 1, 2012



Ameren Missouri  
**Cash Working Capital Requirement**  
For the Twelve Months Ended September 30, 2011

Line No.	Description (A)	Revenue Lag (B)	Expense Lead (C)	Net Lag (D)	CWC Factor (E)
1	Pensions & Benefits	42.66	(32.02)	10.64	0.0291
2	Payroll and Withholdings	42.66	(12.29)	30.38	0.0832
3	Employer FICA Contribution	42.66	(12.73)	29.94	0.0820
4	Other Operations and Maintenance Expenses	42.66	(36.41)	6.25	0.0171
5	Federal Unemployment Taxes	42.66	(76.38)	(33.71)	(0.0924)
6	State Unemployment Taxes	42.66	(76.38)	(33.71)	(0.0924)
7	Corporation Franchise Taxes	42.66	77.50	120.16	0.3292
8	Property/Real Estate Taxes	42.66	(182.50)	(139.84)	(0.3831)
9	Sales Tax	42.66	(38.79)	3.87	0.0106
10	Use Tax	42.66	(76.38)	(33.71)	(0.0924)
11	Gross Receipts Taxes	29.74	(27.54)	2.20	0.0060
12	Federal Income Tax	42.66	(37.88)	4.79	0.0131
13	State Income Tax	42.66	(37.88)	4.79	0.0131
14	St Louis Corporate Earnings Tax	42.66	(273.50)	(230.84)	(0.6324)
15	St Louis Payroll Expense Tax	42.66	(76.38)	(33.71)	(0.0924)
16	Fuel - Nuclear	42.66	(15.21)	27.45	0.0752
17	Fuel - Coal	42.66	(17.14)	25.53	0.0699
18	Fuel - Oil	42.66	(12.70)	29.97	0.0821
19	Fuel - Gas	42.66	(40.36)	2.30	0.0063
20	Interest Expense	42.66	(90.76)	(48.09)	(0.1318)
21	Uncollectible Expense	42.66	(42.66)	-	-
22	Purchased Power	42.66	(25.83)	16.84	0.0461
23	Decommissioning Fees	42.66	(70.63)	(27.97)	(0.0766)