Exhibit No.:	
Issues:	Cash Working Capital
Witness:	Michael J. Adams
Sponsoring Party:	Union Electric Company
Type of Exhibit:	Direct Testimony
Case No.:	ER-2008-____
Date Testimony Prepared:	April 4, 2008

MISSOURI PUBLIC SERVICE COMMISSION

Case No. ER-2008-____

DIRECT TESTIMONY

OF

MICHAEL J. ADAMS

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

St. Louis, Missouri
April, 2008

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DIRECT TESTIMONY

OF

MICHAEL J. ADAMS

CASE NO. ER-2008-____

I. INTRODUCTION AND WITNESS QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Michael J. Adams. My business address is 293 Boston Post Road, Marlborough, Massachusetts 01752.

Q. By whom are you employed?

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

Q. Please describe Concentric.

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

Q. What are your responsibilities in your current position?

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

Q. Please describe your education.

A. I have an MBA in Finance from the University of Illinois at Springfield and a BS in Accounting from Illinois College. I am a member of the American Institute of Certified Public Accountants and the Illinois Society of Certified Public Accountants.

Q. Please describe your qualifications.

A. I have over twenty-five years of direct experience in the public utility industry. I have worked for an investor-owned utility, a regulatory agency, and most recently as a consultant to the energy industry. I have managed and/or participated in a wide variety of consulting engagements and have testified in other regulatory proceedings and jurisdictions.

II. PURPOSE AND SCOPE

Q. What is the purpose of your direct testimony in this proceeding?

A. My testimony discusses a lead-lag study for Union Electric Company d/b/a AmerenUE ("AmerenUE" or the "Company") performed by Concentric under my supervision, which I used to develop cash working capital factors ("CWC factors"). The CWC factors are used by AmerenUE witness Gary S. Weiss to calculate the cash working capital requirements of the Company.

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

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

Q. Are you sponsoring any schedules?

A. Yes. In addition to my prepared testimony I am sponsoring Attachment A, which is a summary of my testimony. Also, I am sponsoring Schedule MJA-E1. I will discuss the nature of this schedule 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 December 31, 2007.

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 AmerenUE's rate base for ratemaking purposes.

Q. Is the analysis of the differences between 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 cash working capital factor ("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 Mr. Weiss.

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

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

Q. What is a revenue lag?

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

Q. What is an expense lead?

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

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

A. Personnel from the Human Resources, Payroll, and Tax Departments provided information pertaining to payment policies and procedures. Data from Ameren Services Company's Accounts Payable, Customer Service, Payroll, and Tax systems as well as records from the Company's bank accounts were also utilized. The information derived from these sources, together with analyses of specific invoices, led to the determination of the appropriate number of lead-lag days for AmerenUE.

A. Revenue Lags

Q. How is the 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 available to the Company. In the calculation, the revenue lag was divided into four distinct components: 1) service lag; 2) billing lag; 3) collections lag; and 4) payment lag. Considered together, these four components of retail revenue lag totaled a weighted average of 36.93 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).

Q. What is meant by billing lag?

A. Billing lag refers to the average number of days from the date on which the meter was read until the date the customer was billed. The billing lag was determined by analyzing the Company's monthly billing schedules and meter reading records. The average billing lag was determined to be 1.02 lag days.

Q. What is meant by collections lag?

A. The collections lag refers to the average amount of time from the date when the customer received a bill to the date that the Company received payment from the customer. Based on weighted average data from the Company's Customer Service System and by considering accounts receivables balances by class of customer by days aged, the average collection lag was determined to be 20.11 days.

Q. What is meant by payment lag?

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

Q. What factors can influence the payment lag?

A. The Company received payments from customers typically in one of four ways: 1) by mail; 2) from payment centers; 3) by credit card; or 4) via an Electronic Data Interchange ("EDI") mechanism. On average, the credit card and EDI approaches had no nominal lags associated with them, except if payments were credited to the Company's account on a Friday, in which case the funds were available to the Company the following Monday. On average, payments by mail had a 0.38 day lag; while collections from payment centers had a nominal lag of 0.10 days. Taking this information into account, the payment lag was determined to be 0.59 days.

Q. Please summarize the calculation of revenue lag days.

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

Revenue Lag Component	Lag Days
Meter Reading	15.21
Billing	1.02
Collections	20.11
Payment Processing	0.59
Total Revenue Lag	36.93

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 study: a) employee pensions and benefits; b) base payroll; c) FICA (social security) and other withholdings; d) fuels – nuclear, coal, oil, and gas; e) other operations and maintenance expenses; f) general taxes including taxes other than income taxes; g) federal income taxes; h) state income taxes; i) interest on long-term debt; and j) purchased power.

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) contributions to the Company’s pension fund; c) group health insurance including claims processing, claims payment, and administration costs; and d) the Company's 401-K plan.

Taken together, these programs had a dollar-weighted lead time of 45.97 days for the twelve months ended December 31, 2007.

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

A. The Company made contributions to its pension plan in December for calendar year 2007. Taking this information into account and using the actual date and dollar contribution made by the Company, a pension expense lead time of 168.50 days was determined.

Q. What were the expense leads associated with the Company's group life insurance program?

A. The analysis of invoices paid to the Company's providers of group life insurance (Minnesota Life and Metropolitan Life) indicated a weighted average lead time of 33.30 days.

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

A. The Company's group health insurance program had three major categories of activities: a) claims processing, i.e., from the time a claim was filed to the time it was processed; b) claims payment, i.e., from the time the provider provided the claim to the Company for reimbursement to the time the reimbursement occurred; and c) administration-related expenses. Based on annual summaries of performance provided to the Company by its group health plan administrators, the claims processing period was determined to be 5.14 days. Additionally, based on actual service requests and electronic payment instructions from the Company's Human Resources Department, the claims reimbursement time was determined to be 16.77 days. Finally, based on an examination of invoices and payment instructions from within the Company's accounts payable system, a lead time of 14.49 days was derived for group health administration expenses.

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

A. The expense lead time associated with the Company's match under the 401-K plan was 15.14 days.

Q. What is the expense lead time associated with the Company’s payroll and withholding expenses?

A. The Company's payroll records were analyzed to measure the number of lead days between the Company's receipt of services from its employees and the related payment for those services. On a dollar-weighted basis, the expense lead time associated with the Company’s net payroll, federal withholdings, state withholdings, and FICA contributions was determined to be 11.62 days. This includes an expense lead time of 10.66 days associated with net payroll, 13.25 days associated with federal withholdings, 17.19 days associated with state withholdings, and finally, 13.27 days associated with FICA contributions.

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

A. Payroll lead days were determined by calculating the nominal and weighted lead time by pay period and weighting the resulting lead days by the amounts paid out by the Company to cover their payroll obligations. The resulting total on a dollar-weighted basis was 10.66 days.

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

A. The Company electronically transfers the dollar amounts associated with the employee and employer share of Federal Insurance Contributions and state withholding taxes to the appropriate federal and state authorities on their respective due dates – the next business day to the federal authorities, and the third business day following the end of a period (periods end on the 7th, 15th, 22nd, and the last day of the month) to the state taxing authorities. Taking this payment schedule into account and considering weekends and bank holidays, an incremental lead time of 2.60 days was estimated for federal withholding and 2.61 days for social security or FICA-related transactions. This lead time is "incremental" in the sense that it should be added to the lead time on base payroll to derive the total amount of lead time associated with federal withholding taxes. An incremental lead time of 6.54 days was determined for transactions involving the State of Missouri. When added to the base payroll lead time, these lead time estimates total 13.25 days for federal withholding remittances, 13.27 days for FICA remittances to the federal government, and 17.19 days for remittances of state withholdings.

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

A. The Company engages in transactions with other vendors (not associated with pensions, benefits, payroll, fuel, or taxes) for a variety of purposes including facility maintenance, maintenance of system reliability, and customer service. Invoices from providers of such services were analyzed in order to estimate a lead time associated with payment for services related to other operations and maintenance activities. The analysis indicates that on average, invoices were paid by the Company 38.94 days after receipt.

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

A. The Company purchases and owns all of its current nuclear fuel. The nuclear fuel in the reactor is amortized to expense each month as it is burned. The average unburned nuclear fuel in the reactor is included in the materials and supplies inventory in rate base. Therefore, the only lead is between the monthly burn charged to expenses and when this expense is recovered in revenues. Thus the service lead is used for the expense lead.

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

A. A sample of invoices related to purchases of coal, purchases of transportation services, and other sundry coal-related items was examined to determine the expense lead time associated with the Company's purchases of coal and related services. When weighted by the dollar amounts shown on the invoices examined, a weighted average expense lead time of 18.09 days was determined.

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

A. Based on an examination of a sample of invoices of the two major suppliers of fuel oil to the Company, a weighted average lead time of 15.77 days was determined.

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

A. Based on an examination of invoices of a sample of commodity and pipeline suppliers to the Company, a weighted expense lead time of 38.65 days was determined. This lead time includes a half month's worth of service lead time.

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

A. AmerenUE has a long term contract with Arkansas Power & Light Company to purchase energy and capacity. The Company also makes purchases as required from the Midwest Independent Transmission System Operator, Inc. ("MISO"). Based on an examination of the service periods and payment dates for the Company's two sources of purchase power, a weighted average lead time of 30.76 days was determined.

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

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

Q. Explain the lead effects associated with each type of general taxes considered in the analysis.

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

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

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

c) Property Taxes: All current-year property taxes in Missouri are due on December 31st of the current year. Taking this schedule into consideration, a dollar-weighted expense lead of 182.50 days was calculated.

d) Corporation Franchise Taxes: The State of Missouri levies a corporation franchise tax on companies with in-state assets of $1,000,000 or more. The tax is due on April 15th of the current year.

Based on this information a negative expense lead time of 77.50 days was determined.

e) Missouri Sales and Use Taxes: Missouri sales tax is payable to the Missouri Department of Revenue and is calculated as a percent of billings less a 2 percent timely payment allowance. These taxes are due monthly by the 20th of the month following. Taking this information into account, and including a half month of service lead time, a weighted expense lead time of 35.21 days was determined.

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

f) Gross Receipts Taxes: In the State of Missouri, gross receipts taxes are payable to municipalities and are typically estimated as a percent of billings to customers within the municipality. The Company typically pays these taxes on the last day of the month following the end of a monthly, quarterly, semi-annual, or annual tax period depending on the municipality. Based on the specific tax periods of the various municipalities, a dollar-weighted gross receipts tax expense lead time of 52.96 days was calculated.

g) St. Louis Taxes: The Company pays corporate earnings and payroll expense taxes to the City of St. Louis. Both of these taxes are paid by check to the City of St. Louis. The corporate earnings tax is paid annually on April 1st for the previous year, while the payroll expense tax is paid quarterly on the last day of the month following the end of a quarter. Taking this information into account, the expense lead time associated with corporate earnings taxes was determined to be 274.50 days and the payroll expense tax was determined to be 76.38 days.

Q. How did your study address federal income taxes?

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

Q. How did the study address state income taxes?

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

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

A. The Company's interest payments on its long-term bonds were made from current revenues. Thus, there was a lead (or lag) between the date the interest payments were collected from customers and the date when such amounts were paid to financial institutions. The Company generally made interest payments on its long-term debt twice a year at varying times. Using actual due dates on interest payments, a dollar-weighted lead of 91.25 days for interest payments were determined.

Q. Does this conclude your direct testimony?

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 Service Provided to Customers in the Company's Missouri Service Area.	)))))	Case No. ER-2008-____

AFFIDAVIT OF MICHAEL J. ADAMS

STATE OF MISSOURI)
) **ss**
CITY OF ST. LOUIS)

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

1. My name is Michael J. Adams. I work 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 16 pages, Attachment A and Schedule MJA-E1, 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 4th day of April, 2008.

Danielle R. Moskop
Notary Public

My commission expires:

Danielle R. Moskop
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: July 21, 2009
Commission # 05745027

EXECUTIVE SUMMARY

Michael Adams

Vice President - Concentric Energy Advisors

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My testimony discusses a lead-lag study for Union Electric Company d/b/a AmerenUE ("AmerenUE" or the "Company") performed by Concentric Energy Advisors under my supervision, which I used to develop cash working capital factors ("CWC factors"). The CWC factors are used by AmerenUE witness Gary S. Weiss to calculate the cash working capital requirements of the Company.

Cash working capital is the amount of funds required to finance the day-to-day operations of the Company, and should be included as part of AmerenUE's electric business rate base for rate making purposes. 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 results of the lead-lag study and the associated CWC factors are presented in Schedule MJA-E1.

AmerenUE
Cash Working Capital Requirement
For the Twelve Months Ended December 31, 2007

Line No.	Description (A)	Revenue Lag (B)	Expense Lead (C)	Net Lag (D)	CWC Factor (E)
1	Pensions & Benefits	36.93	(45.97)	(9.04)	(0.0248)
2	Payroll and Withholdings	36.93	(11.62)	25.31	0.0693
3	Employer FICA Contribution	36.93	(13.27)	23.66	0.0648
4	Other Operations and Maintenance Expenses	36.93	(38.94)	(2.01)	(0.0055)
5	Federal Unemployment Taxes	36.93	(76.38)	(39.45)	(0.1081)
6	State Unemployment Taxes	36.93	(76.38)	(39.45)	(0.1081)
7	Corporation Franchise Taxes	36.93	77.50	114.43	0.3135
8	Property/Real Estate Taxes	36.93	(182.50)	(145.57)	(0.3988)
9	Sales Tax	36.93	(35.21)	1.72	0.0047
10	Use Tax	36.93	(76.38)	(39.45)	(0.1081)
11	Gross Receipts Taxes	36.93	(52.96)	(16.04)	(0.0439)
12	Federal Income Tax	36.93	(37.88)	(0.95)	(0.0026)
13	State Income Tax	36.93	(37.88)	(0.95)	(0.0026)
14	Interest Expense	36.93	(91.25)	(54.32)	(0.1488)
15	St Louis Corporate Earnings Tax	36.93	(274.50)	(237.57)	(0.6509)
16	St Louis Payroll Expense Tax	36.93	(76.38)	(39.45)	(0.1081)
17	Fuel - Nuclear	36.93	(15.21)	21.72	0.0595
18	Fuel - Coal	36.93	(18.09)	18.84	0.0516
19	Fuel - Oil	36.93	(15.77)	21.16	0.0580
20	Fuel - Gas	36.93	(38.65)	(1.73)	(0.0047)
21	Uncollectible Expense	36.93	(36.93)	-	-
22	Purchased Power	36.93	(30.76)	6.16	0.0169

Schedule MJA-E1