Exhibit No.:	
Issues:	Cash Working Capital
Witness:	Michael Adams
Sponsoring Party:	Union Electric Company
Type of Exhibit:	Direct Testimony
Case No.:	GR-2007-0003
Date Testimony Prepared:	July 5, 2006

MISSOURI PUBLIC SERVICE COMMISSION

Case No. GR-2007-0003

DIRECT TESTIMONY

OF

MICHAEL ADAMS

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

St. Louis, Missouri
July, 2006

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DIRECT TESTIMONY

OF

MICHAEL ADAMS

CASE NO. GR-2007-0003

I. INTRODUCTION AND WITNESS QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Michael Adams. My business address is 2508 Muirfield Road, Springfield, Illinois 62711.

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

A. I am a Director in the Energy Practice of Navigant Consulting, Inc.

Q. Please describe Navigant Consulting, Inc.

A. Navigant Consulting, Inc. ("NCI") is a specialized independent consulting firm providing professional services to assist clients in identifying practical solutions to the challenges of uncertainty, risk and distress. We focus on large industry segments that are typically highly regulated and are undergoing significant change.

NCI has served the electric and natural gas industries since 1983. We offer a wide range of consulting services related to business strategy and planning, operations advisory management, financial and transaction advisory activities, and technology and innovation management designed to assist our clients in a business environment of changing regulation, increased competition and evolving technology.

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. 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 on regulatory-, financial- and accounting-related issues.

Q. Please describe your qualifications.

A. I have over twenty 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. I have provided expert testimony or reports on issues related to cash working capital requirements before the Arkansas Public Service Commission, the Illinois Commerce Commission, the Missouri Public Service Commission, the Oklahoma Public Service Commission, the Ontario Energy Board, and the Pennsylvania Public Utility Commission. I have testified on other financial, operational or regulatory matters before the Arkansas Public Service Commission, the Illinois Commerce Commission, the Massachusetts Department of Telecommunications and Energy, and the Pennsylvania Public Utility Commission.

II. PURPOSE AND SCOPE

Q. What is the purpose of your testimony?

A. My testimony discusses a lead-lag study performed for Union Electric Company d/b/a AmerenUE ("AmerenUE" or the "Company") by NCI 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-G1. 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 March 31, 2006.

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 electric business 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 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 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 the 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., natural gas) 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 in Ameren Services Company's (which provides support services for AmerenUE's operations) Human Resources, Payroll, and Tax Departments were interviewed to identify 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's gas operations.

A. <u>Revenue Lags</u>

Q. How is the revenue lag determined?

A. The revenue lag is calculated first by dividing it into five distinct components: 1) service lag; 2) billing lag; 3) collections lag; 4) payment lag; and 5) bank float on collections from customers. Considered together, these five components of retail revenue lag totaled a weighted average of 40.15 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 meter reading 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. Adjustments to such schedules and records to reflect the impacts of window billing were then made to determine a billing lag of 1.01 days.

Q. What is meant by collections lag?

A. The collections lag refers to the average amount of time from the date when the Company mailed a bill to the date that the Company received payment from its customers. An aging report from the Company's customer service system was used to determine the collections lag for AmerenUE's operations. 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 21.78 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 two ways: a) by check; or b) electronically. Electronic payments are from cash concentrators,

credit/debit cards, CheckFreePay, or pay agents. Check payments are processed by the Company and deposited into its bank account typically the next business day. When weekends and holidays are factored in, the unweighted lag time associated with check deposits was found to be 1.15 days. Based on interviews with the Company's customer service personnel, it was determined that cash concentrators have no payment processing lag (same day deposit), credit/debit cards have a two-day payment lag, and CheckFreePay and payment agents have a one-day unweighted lag. Taking this information into account and using a sample of deposits from all the mechanisms described above for the twelve months ended March 31, 2006 for the purpose of dollar-weighting the unweighted payment lags, the payment lag was determined to be 1.13 days.

Q. What is meant by bank float?

A. Bank float refers to the time between the Company's deposit of the customer's check and the time the Company had access to the cash. Examination of a sample of the Company's bank records and cash availability summaries indicated that there was a float time of 1.02 days between aggregate deposits of customer funds into the Company's bank account and the Company's access to the cash.

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:

Lag Component	Lag Days
Service Lag	15.21
Billing Lag	1.01
Collections Lag	21.78
Payment Lag	1.13
Bank Float	1.02
Total Lag Days	40.15

B. <u>Expense Leads</u>

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) payroll; b) FICA (social security) and other withholdings; c) employee pensions and benefits; d) other operations and maintenance expenses; e) fuels – gas; f) general taxes including taxes other than income taxes; g) federal income taxes; h) state income taxes; and i) interest on long-term debt.

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 employee FICA contributions was determined to be 11.24 days. This includes an expense lead time of 10.53 days associated with net payroll, 12.84 days associated with federal withholdings, 15.0 days associated with state withholdings, and finally, 12.89 days associated with employee FICA contributions.

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

A. Payroll lead days were calculated by: a) calculating the nominal and weighted lead time by pay period, b) adding to the estimate of weighted lead an amount to cover the float time where checks rather than direct deposits were used as the basis for compensating employees, and c) weighting the resulting lead days by the amounts paid out by the Company to cover their payroll obligations. To the extent that employees were reimbursed for their services by check, an additional float time of 5.34 days was added. The resulting total on a dollar-weighted basis, including float time, was 10.53 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 FICA 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 taxation authorities. Taking this payment schedule into account and considering weekends and bank holidays, an incremental lead time of 2.30 days was estimated for federal withholding and 2.36 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 of 4.47 days was estimated for transactions involving the State of Missouri for the twelve months ended March 31, 2006. When added to the base payroll lead time, these lead time estimates total 12.84 days for federal withholding remittances, 12.89 days for employer- and employee-related FICA remittances to the federal government, and 15.00 days for remittances of state withholdings. Since the federal withholding, FICA, and state withholding amounts are remitted to the respective authorities via wire transfer, no additional bank float time was included in the analysis.

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) contributions to the Company's pension fund; b) group life insurance, 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 45.07 days for the twelve months ended March 31, 2006.

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 February and September of 2005 for calendar year 2005. Taking this information into account and using the actual dates and dollar contributions made by the Company, a weighted average pension

expense lead time of 73.54 days was determined. Since these contributions were made electronically, no additional float time was included.

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 indicated a weighted average lead time of 28.72 days. Since payments were made electronically by the Company to its group life insurance carriers, no additional float time was included.

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 and 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 9.12 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 17.77 days. Finally, based on an examination of invoices and payment instructions from the Company's accounts payable system, a lead time of 2.11 days was derived for group health administration expenses.

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

A. The expense lead time associated with the Company's 401-K plan was 18.00 days. Since payments to the Company's 401-K fund managers were made electronically, float time was not included in the analysis.

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 natural gas purchases, payroll, benefits, pensions, interest payments, 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 50.72 days after receipt. This estimate of lead time relating to the Company's other operations and maintenance expenses is the sum of 45.38 days of weighted invoice processing lead time (including 15.21 days of service lead time) and 5.34 days of bank float since most of these other operations and maintenance related expense payments were made by check.

Q. What does bank float mean in the context of the Company's accounts payables?

A. Bank float is the difference in time between the date the Company mails a check to one of its vendors and the date the cash leaves the Company's bank account.

Q. Why is it necessary to consider the float on the Company's accounts payables in a lead-lag study?

A. It is the Company's intent to present an unbiased and comprehensive analysis of its cash working capital requirements to the Commission in this proceeding; thus, the estimate of float (or bank processing) time was considered on both the receivable and payable side of the cash working capital equation.

Q. How was the bank float on the Company's accounts payables estimated?

A. The float time was estimated using data on cancelled checks provided by the Company's bank. Using a sample of checks for the twelve months ended March 31, 2006, the analysis indicated that the average float time was 5.34 days, on a dollar weighted basis.

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

A. Based on an examination of invoices of a sample of commodity and pipeline suppliers to the Company, a weighted expense lead time of 39.73 days was determined. This lead time includes a half-month's worth of service lead time and excludes float since payments are made electronically.

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

A. Each category of taxes and how it was considered in the Company's study is described below:

a) ***Federal Unemployment Taxes***: Federal unemployment taxes are due quarterly by the 15th of the month following the end of the quarter. Taking this information into account, a weighted average expense lead time of

60.63 days was determined. Since payments are made by wire transfer, no additional bank float time was considered.

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 quarterly by the 15th of the month following the end of the quarter. Taking this information into account, a weighted average expense lead time of 60.63 days was determined. Since payments are made by wire transfer, no additional bank float time was included.

c) ***Property Taxes***: In the State of Missouri, all current-year property taxes 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. Since payments are made by check, an additional float time of 5.34 days was included bringing the total weighted property tax expense lead time estimate to 187.84 days.

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 fiscal year. Based on this information a negative expense lead time of negative 72.16 days was used in the calculation of cash working capital associated with corporation

franchise taxes. Since the payment is made by check, this estimate of lag includes bank float time.

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. Since payments are made by check, an additional 5.34 days of float was added resulting in a total weighted sales tax expense lead time of 40.55 days.

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. Since payments are made by check, an additional float time of 5.34 days was included bringing the total use tax-related expense lead time to 81.72 days.

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 77.89 days was calculated. This lead time includes float since the municipalities are paid by check.

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 to be paid on April 15, June 15, September 15, and December 15 of the current year. Taking this schedule into consideration a lead time of 60.63 days for federal income tax payments made by the Company was determined. This lead time did not include bank float since payments were made electronically.

Q. How did you consider state income taxes in your study?

A. State income taxes follow a pattern similar to federal taxes. Thus, assuming quarterly payments due on the 15th of the month following the end of a quarter, an expense lead time of 60.63 days was determined. Since payments are made electronically, no additional float time was considered in this study.

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

A. Based on information provided by Mr. Weiss, an interest expense lead time of 91.75 days was included in the Company's analysis.

Q. Based on your analysis of the lead-lag study, have you calculated CWC factors?

A. Yes. The results of the lead-lag study and the associated CWC factors are presented in AmerenUE Schedule MJA-G1.

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 Natural Gas Service Provided to Customers in the Company's Missouri Service Area	)))))	Case No. GR-2007-0003

AFFIDAVIT OF MICHAEL ADAMS

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

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

1. My name is Michael Adams. I work in Springfield, Illinois and I am a Director in the Energy Practice of Navigant Consulting, 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 17 pages, Attachment A and Schedule MJA-G1 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 Adams

Subscribed and sworn to before me this 5th day of July, 2006.

Notary Public

My commission expires:

CAROLYN J. WOODSTOCK
Notary Public - Notary Seal
STATE OF MISSOURI
Franklin County
My Commission Expires: May 19, 2008

EXECUTIVE SUMMARY

Michael Adams

Director in the Energy Practice
Navigant Consulting, Inc.

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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 NCI 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 ratemaking 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-G1.

AmerenUE Gas
Cash Working Capital Requirement
For the Twelve Months Ended March 31, 2006

Line No.	Description	Revenue Lag Days	Expense Lead Days	Net Lag Days	CWC Factor
	(A)	(B)	(C)	(D)	(E)
1	Payroll and Withholdings	40.15	(11.24)	28.91	0.0792
2	Employer FICA Contribution	40.15	(12.89)	27.26	0.0747
3	Pensions & Benefits	40.15	(45.07)	(4.92)	(0.0135)
4	Other Operations and Maintenance Expenses	40.15	(50.72)	(10.57)	(0.0290)
5	Fuel - Gas	40.15	(39.73)	0.42	0.0012
6	Federal Unemployment Taxes	40.15	(60.63)	(20.47)	(0.0561)
7	State Unemployment Taxes	40.15	(60.63)	(20.47)	(0.0561)
8	Property/Real Estate Taxes	40.15	(187.84)	(147.69)	(0.4046)
9	Corporation Franchise Taxes	40.15	72.16	112.31	0.3077
10	Sales Tax	40.15	(40.55)	(0.40)	(0.0011)
11	Use Tax	40.15	(81.72)	(41.57)	(0.1139)
12	Gross Receipts Taxes	40.15	(77.89)	(37.74)	(0.1034)
13	Federal Income Tax	40.15	(60.63)	(20.47)	(0.0561)
14	State Income Tax	40.15	(60.63)	(20.47)	(0.0561)
15	Interest Expense	40.15	(91.75)	(51.60)	(0.1414)