Exhibit No.:	
Issues:	Cash Working Capital
Witness:	Michael Adams
Sponsoring Party:	Union Electric Company
Type of Exhibit:	Direct Testimony
Case No.:	
Date Testimony Prepared:	May 23, 2003

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. _____

DIRECT TESTIMONY

OF

MICHAEL ADAMS

ON

BEHALF OF

UNION ELECTRIC COMPANY,
d/b/a AmerenUE

St. Louis, Missouri
May 2003

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 Gas Service Provided to Customers in the Company's Missouri Service Area.	)))))	Case No. _____

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 18 pages, which has 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
Michael Adams

Subscribed and sworn to before me this 22nd day of May, 2003.

Mary Hoyt
Notary Public

My commission expires: 4-1-2006

MARY HOYT
Notary Public - Notary Seal
STATE OF MISSOURI
Jefferson County
My Commission Expires: April 1, 2006

DIRECT TESTIMONY

OF

MICHAEL ADAMS

CASE NO. _____

Q. Please state your name and business address.

A. My name is Michael Adams. My business address is 3920 Pintail Drive, Suite B, Springfield, Illinois 62704.

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., is a global management-consulting firm that has over 1,000 professionals located in 41 offices worldwide. We have two major practice areas: Energy, and the Financial and Claims group. We have extensive experience in representing clients on economic, financial and policy issues in regulatory, administrative and civil proceedings at the state, federal and international level. Our expertise and work involve participation in rate proceedings, with a focus on all elements of revenue requirement, cost of service, cost allocation, rate of return and rate design. Our consultants are nationally recognized authorities in their areas of specialty, and have participated in numerous complex litigation cases before administrative and legislative agencies, state regulatory commissions, the Federal Energy Regulatory Commission, the Department of Justice, and the Federal Trade Commission, as well as in civil litigation matters.

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 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.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present the results of Union Electric Company d/b/a AmerenUE's ("AmerenUE" or the "Company") cash working capital analysis.

Q. Are you sponsoring any schedules?

A. Yes. In addition to my prepared testimony, I am co-sponsoring Schedule GSW-5 with Company witness Gary S. Weiss. I will discuss the nature of the schedule later in my testimony.

Q. Have you performed a study to determine the level of cash working capital required to finance AmerenUE's day-to-day operations?

A. Yes, I have performed a lead-lag study by analyzing the Company's cash transactions and invoices for the twelve months ended December 31, 2002, which is the Company's proposed test year for this proceeding.

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. 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 natural gas-related products and services to its customers, and customer payment for such products and services.

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

A. Yes. A lead-lag study analyzes the lag 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 net lag days (i.e., revenue lag minus expense leads) are divided by 365 to determine a daily Cash Working Capital Factor (or "CWC factor"). This CWC factor is then multiplied by the applicable test year expenses to determine the amount of cash working capital required for operations. The sources of the test year operating revenues and expenses to which the leads and lags were applied are described in the direct testimony of Company witness Weiss.

Q. What source of information did you employ to determine the leads and lags?

A. I interviewed personnel in the Company's Human Resources, Payroll, and Tax Departments to identify payment policies and procedures. I also gathered data from the Company's Accounts Payable system, the billing and collections department, the Company's Customer Service System ("CSS"), the Payroll system, and records from the Company's banks. The information derived from these sources, together with the analysis of specific invoices, led to my determination of the appropriate lead/lag days.

Q. Are there different types of revenue lags?

A. Yes. The Company derives revenue primarily from two sources: (1) delivery of natural gas to end-use customers (i.e., retail revenues), and (2) revenues associated with the Purchased Gas Adjustment clause ("PGA"). Given the differences in nature of the billing and payment processes between the PGA and base rates, my analysis treats the two types of revenue lags differently.

Q. How did you determine the Company's retail revenue lags?

A. Retail revenue lags are a measure of the number of days from the date service is rendered by the Company until the date payment is received from customers

and such funds are available to the Company. I analyzed five distinct components of the Company's retail revenue lag: (1) meter reading lag; (2) billing lag; (3) collections (accounts receivable) lag; (4) payment lag; and, (5) bank float on collections from customers. Considered together, these five elements of retail revenue lag totaled 38.01 lag days. A breakdown of each element of the retail revenue lag follows.

Q. What is meant by meter reading lag?

A. The meter reading 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 method, the average lag associated with meter reading should be 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 meter reading date until the date the customer is billed. I determined the Company's billing lag by analyzing the Company's monthly billing schedules and meter reading records. By analyzing each of the Company's 21 monthly billing cycles, I determined that the average billing lag without consideration given to window billing was 2.91 lag days.

Q. What is meant by "window billing"?

A. The Company bills its customers in 21 cycles during any given month. Prior to the end of 2002, the Company did not send out the bills of customers until after a pre-determined cut-off date, even though billing data was available for customers in multiple cycles within a given window. Toward the end of 2002, however, the Company introduced a practice referred to as "window billing". If billing data is available for customers within a given window, regardless of cycle, the bills for such customers are

generated on the night when the billing data is received and the bill gets mailed on the next day.

Q. What effect does window billing have on the billing lag?

A. Based on recent billing history, statistics indicate that window billing reduces the billing lag by up to two days. Thus, the billing lag considered in the Company's analysis was 0.91 lag days (i.e., 2.91 lag days minus two lag days for window billing).

Q. What is meant by collections lag?

A. The collections lag refers to the average amount of time from when the customer receives a bill to the time that AmerenUE receives the customer's payment. This lag is calculated by considering accounts receivables balances by class of customer by days aged which is obtained from the Company's CSS. Based on information provided from the CSS, I determined that the Company's collections lag was 20.15 lag 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 its bank for collection from the customer's account.

Q. What factors can influence the payment lag?

A. The Company receives payments from its customers typically in one of four basic ways: (1) by mail, (2) from payment centers, (3) by direct deposit, or 4) via an Electronic Data Interchange ("EDI") mechanism. On average, the direct deposit and EDI approaches have no nominal lags associated with them, except if payments are credited to

the Company's account on a Friday, in which case the funds are available to the Company the following Monday. Interviews with the Company's customer accounts personnel revealed that, on average, payments by mail have a one to two day nominal lag associated with them and collections from payment centers have a nominal lag of about a day. Electronic payments, including direct debit arrangements, typically have no lag associated with them. Taking this information into account, considering non-business days and holidays, and adopting a conservative estimate of the nominal lag associated with mail payments (one day), I estimated a 1.23 day payment lag for the twelve months ended December 31, 2002.

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 has access to the cash. An examination of a sample of the Company's bank records and cash availability summaries indicate a float time of about 0.51 days between aggregate deposits of customer checks into the Company's bank account and the Company's access to the cash.

Q. What is meant by the PGA lag?

A. As with most gas utilities in the country today, the Company has a Purchased Gas Adjustment clause which is primarily intended to recover the cost of acquiring the gas commodity for its customers. The Company's PGA consists of three parts: (1) the Regular Purchased Gas Adjustment Clause (or "RPGA"), (2) the Actual Cost Adjustment (or "ACA"), and (3) a Refund Factor. The Company has three PGAs within its service area, one for the region served by Panhandle Eastern Pipe Line Company, and one each for the regions served by Texas Eastern Transmission Corp. and

Natural Gas Pipeline Company of America, Inc. While the Company has the regulatory authorization to revise its RPGA up to four times within a 12-month period, the Company filed twice in 2002 with RPGAs going into effect on April 1, 2002, and November 1, 2002. The Company's ACA is designed to recover variances between actual expenses and actual revenues. The ACA goes into effect once a calendar year (typically on November 1) and trues-up the RPGA for the prior 12-month period September to August, as well as the prior ACA balance. The Refund Factor, which works in a manner similar to the ACA, is relatively minor in terms of dollar amounts when compared with either the RPGA or the ACA. Thus, the refund factor was not considered in the analysis. Taking the RPGA and ACA schedule into consideration, and accounting for both RPGA as well as ACA dollar amounts over the period September 2001 through August 2002, I estimated a PGA lag time of 94.38 days.

Q. What expense-related leads did you consider in your analysis?

A. I estimated lead times associated with the following expense categories in the study: (1) pensions and benefits; (2) purchased gas expenses; (3) base payroll; (4) FICA (social security) and other withholdings; (5) fuel; (6) other operations and maintenance expenses; (7) general taxes; (8) federal income taxes; (9) state income taxes; and (10) interest on long-term debt.

Q. What type of leads associated with the Company's pensions and benefits programs did you identify in your study?

A. I estimated lead times associated with the following major categories of the Company's pensions and benefit programs: (1) group life insurance; (2) group health insurance including claims and administration costs; and (3) the Company's 401-K plan.

I did not consider pensions in this analysis because the Company did not make contributions to its pension fund during the test year. Taken together, I estimated a dollar-weighted lead time of 26.63 days associated with its pensions and benefits programs for the twelve months ended December 31, 2002.

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

A. An analysis of invoices paid to the Company's provider of group life insurance for both AmerenUE, as well as Ameren Services Company employees, indicates a weighted average lead time of about 71.94 days. This estimate of lead time includes service lead time, payment processing time, and bank float (since the Company's provider is paid by check).

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

A. The Company's group health insurance program has two major categories of expenses associated with it: (1) claims-related expenses, and (2) administrative-related expenses. To determine the lead days associated with claims payments related to group health insurance, I assumed that claims are incurred and processed evenly throughout the year. According to an annual summary of performance provided to the Company from its group health plan administrator (General American), 96.3 percent of claims are processed within 10 days of receipt; the balance is typically processed within 10 - 20 days. Taking this information into account, I estimated the claims processing period to be 10.37 days. Additionally, based on an examination of invoices from the Company's accounts payable system, I estimated a lead time of 7.71 days for group

health administration expenses, for the twelve month period ended December 31, 2002. Where payments to the group health administrator(s) are made by check, the estimates of administrative-related lead time includes bank float.

Q. What is the expense lead associated with the Company's match in its 401-K plan?

A. My examination of invoices issued by the Company's administrator of its 401-K plan (Northern Trust) for the twelve months ended December 31, 2002, indicated that, on average, the Company wires funds to its administrator about 14.56 days after the beginning of each pay-period. This is intended to provide both the Company, as well as its 401-K plan administrator, the additional time to ensure that Company remittances on behalf of its employees are accurate. Since payments are made by wire transfer, no additional float time is included.

Q. What types of leads are associated with the Company's purchases of natural gas?

A. As mentioned earlier, the Company purchases gas from several vendors and receives delivery of its purchased gas through several pipelines. My examination of invoices from transactions in which the Company bought natural gas indicates that the average lead time for the twelve months ended December 31, 2002, was 29.23 days, including a mid-point based average of 15.21 days of service lead time. Since the Company pays for natural gas via wire transfer, no bank float was included in my estimate of the lead time associated with purchases of natural gas.

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

A. I performed an analysis of payroll records to measure the lead days between the receipt of services from employees and the related payment for those services. For payroll purposes, the Company's employees are divided into two groups – contract and executive. Contract employees are paid bi-weekly in two groups, "A" and "B". The executives are paid on the 15th and the last day of the month. In general, over 99 percent of total payroll at the Company is in the form of direct deposits into employee accounts. Payroll lead days were calculated for both bi-weekly groups by: (1) calculating the nominal and weighted lead time by pay group; (2) weighting the lead days by the total annual dollar amount of each payroll cycle; and (3) 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. The resulting total on a dollar-weighted basis, including float time, was 10.16 days for the twelve months ended December 31, 2002.

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

A. According to the Company's Payroll and Tax personnel, 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 taxation authorities. Taking this payment schedule into account, and considering weekends and bank holidays, I estimated an incremental lead time of 1.79 days for federal withholding and social

security or FICA related transactions. The 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. Similarly, an incremental lead of 4.75 days was estimated for withholding tax transactions involving the State of Missouri for the twelve months ended December 31, 2002. When added to the base payroll lead time, these lead estimates total 11.94 and 14.91 days for federal and state level withholding transactions, respectively. Since the federal withholding, FICA and state withholding amounts are remitted to the respective authorities via wire transfer, no additional bank float time is involved.

Q. What are other operations and maintenance expenses, and what are the lead effects that one can expect with such expenses?

A. The Company engages in transactions with other vendors (not associated with pensions, benefits, payroll or natural gas) for a variety of purposes including facility maintenance, maintenance of system reliability and customer service. I analyzed invoices from providers of such services in order to estimate a lead time associated with payment for services related to other operations and maintenance activities. My analysis indicates that, on average, invoices were paid by the Company 48.08 days after they were received, including, on average, 15.21 days of service lag. My estimate of lead time relating to other operations and maintenance expenses includes 5.03 days of bank float since most of these operations and maintenance related expense payments are made by check.

Q. What is bank "float" on the Company's accounts payables?

A. Bank float is the difference in time between when the Company mails a check to one of its vendors and when the cash leaves the Company's 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 to the Commission in this proceeding; thus, the estimate of float (or bank processing) time needs to be considered on both the receivable and payable side of the cash working capital equation.

Q. Describe the approach you took in estimating the bank "float" on the Company's accounts payables.

A. I calculated the estimate of float time using data on cancelled checks provided by the Company's bank. I used a sample of approximately 3,100 checks, randomly drawn from the Company's bank records, issued by the Company during the twelve months ended December 31, 2002, in the analysis. The average dollar amount on the checks reviewed was about $13,828, with the largest being about $3.82 million and the smallest being $0.08. The median of the sample checks was about $922. On a dollar-weighted basis, my analysis indicates that the average float time is about 5.03 days.

Q. What general taxes did you consider in your analysis?

A. I considered the following general taxes in my study: (1) federal unemployment taxes; (2) state unemployment taxes; (3) property taxes; (4) corporation franchise taxes; (5) Missouri sales taxes; and (6) gross receipts taxes.

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

A. Each category of general taxes and how it was considered in my study is described below:

a) Federal Unemployment Taxes: The Federal Unemployment Tax Act (FUTA) taxes are paid quarterly by the Company according to a schedule established by the Internal Revenue Service. Using a mid-point approach, I determined a dollar-weighted lead of 59.57 days should be used in the calculation of the appropriate CWC factor. Since payments are made by wire transfer, no additional bank float time was included.

b) State Unemployment Taxes: The Company does not pay state unemployment taxes on behalf of its employees in the State of Missouri.

c) Property Taxes: The Company pays real estate and personal property taxes in the jurisdictions of Missouri. In the State of Missouri, all current-year property taxes are due on December 31st of the current year. Taking this schedule into consideration (and accounting for both pre and post payments), I estimated a dollar-weighted expense lead of 182.00 days. Since payments are made by check, an additional float time was included, bringing the total lead time estimate to 187.03 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. Considering the effects of both pre and post payments, and using a mid-point approach, I calculated an expense lag of 75.47 days

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

e) Missouri Sales 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. Based on the Company's actual payments of the sales tax, I calculated a net dollar-weighted lead of 39.72 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 in which the taxes are due, except in special cases where such taxes are paid on the 20th of the month. To be conservative, I assumed that all payments are made on the last day of the period in which the taxes are due, except for the cases where municipalities are paid on the 20th. Based on the dates on which taxes were due and payments were made, I calculated a net dollar-weighted lead of 75.12 days. This estimate of lead time includes float time only to the extent that some municipalities continue to be paid by check.

Q. Why do the revenue lag for sales taxes and the gross receipts taxes differ from the revenue lag used for the Company's other expenses?

A. The Company acts as a "tax collector" for the State of Missouri with respect to these taxes. The Company does not, per se, provide any service to its customers associated with them. Thus, the revenue lag used in calculating the net lag for these expense items excludes the lags associated with meter reading and billing.

Q. What is meant by pre and post payment?

A. To use a simple example, if an expense (say a tax) for a particular quarter is due on the first day of the quarter, the Company must pay the tax in advance of collecting it from its customers. In such an event, the tax is pre-paid by an amount of time equal to three hundred sixty-five days divided by four. The result of this adjustment has then to be further adjusted to account for the mid-point effect, i.e., further divided by two. On the other hand, if the expense (or tax) is due on the last day of the quarter, the tax is post-paid by an amount of time equal to three hundred sixty-five days divided by four. As with the consideration of pre-payments, the result has to be further adjusted to account for the mid-point effect, i.e., divided by two. If the tax is due sometime in the middle of the quarter, the mid-point of the net of pre and post payment periods will determine the lead or lag time associated with the expense or tax.

Q. How were pre and post payments treated in your analysis?

A. I considered both pre and post payments as part of the lead-lag study when calculating the expense lead times associated with corporation franchise taxes, interest expense, and federal and state income taxes.

Q. What other expense related items did you consider in your analysis?

A. I considered the following additional expenses in my lead-lag study:

(1) federal income tax expenses;

(2) state income tax expenses; and

(3) interest expenses associated with the Company's long-term debt.

Q. How were federal income taxes considered in your study?

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 and using a mid-point methodology that accounts for both pre-payments and post-payments, I estimated a lead time of 37.40 days for federal income tax payments made by the Company during calendar year 2002. This estimate does not include bank float since payments are made electronically.

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

A. Missouri requires estimated state income tax payments of 22.5 percent to be made on April 15, June 15, September 15, and December 15 of the current year. The remaining 10 percent is payable on April 15 of the following year. Taking this schedule into consideration and using a mid-point methodology that accounts for the effects of both pre and post payment periods, a lead time of 33.37 days was estimated for state income taxes. Since payments are made electronically, no additional float time was included.

Q. Provide a description of how lead times associated with the Company's interest expense were addressed in your study.

A. The Company's interest payments made on its long-term bonds are made from current revenues. Thus, there is a lead (or lag) associated with the difference in time between when the interest payments are collected from customers (in the form of customer revenues) and when such amounts are paid to the respective financial

institutions. The Company generally makes interest payments on its long-term debt twice a year at varying times during the year. Using the mid-point approach to account for both pre and post payment periods relative to the mid-point of the year, I estimated a dollar-weighted lead estimate of 27.15 days for interest expenses. Since interest payments are made electronically, no additional lead time is required to be included in the analysis.

Q. What are the resulting CWC factors associated with federal and state income taxes and interest on long term debt?

A. Using the expense leads associated with the Company's federal and state income taxes and its interest payments on long term debt, the resulting CWC factors are 0.17 percent for federal income tax, 1.27 percent for state income tax, and 2.98 percent for interest on long term debt.

Q. Have you summarized the results of your cash working capital analysis?

A. The results of my cash working capital study are presented in Schedules GSW-5, GSW-6, and GSW-13 sponsored by Company witness Weiss. I am sponsoring the revenue lag, expense lead, net lag and CWC factors set forth on Company witness Weiss' Schedule GSW-5. As Schedule GSW-13 shows, the appropriate level of cash working capital required by AmerenUE is $9.05 million, including federal and state income taxes and interest expense offsets.

Q. Does this conclude your direct testimony?

A. Yes, it does.