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

Case No. ER-2007-0002

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. ER-2007-0002

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.

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

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

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

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

9 **Q. Please describe your qualifications.**

10 A. I have over twenty years of direct experience in the public utility industry. I
11 have worked for an investor-owned utility, a regulatory agency, and most recently as a
12 consultant to the energy industry. I have managed and/or participated in a wide variety of
13 consulting engagements and have testified in other regulatory proceedings. I have provided
14 expert testimony or reports on issues related to cash working capital requirements before the
15 Arkansas Public Service Commission, the Illinois Commerce Commission, the Missouri
16 Public Service Commission, the Oklahoma Public Service Commission, the Ontario Energy
17 Board, and the Pennsylvania Public Utility Commission. I have testified on other financial,
18 operational or regulatory matters before the Arkansas Public Service Commission, the
19 Illinois Commerce Commission, the Massachusetts Department of Telecommunications and
20 Energy, and the Pennsylvania Public Utility Commission.

1 **II. PURPOSE AND SCOPE**

2 **Q. What is the purpose of your testimony?**

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

8 **Q. Please define what you mean by the phrase “cash working capital.”**

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

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

12 A. Yes. In addition to my prepared testimony I am sponsoring Attachment A,
13 which is a summary of my testimony. Also, I am sponsoring Schedule MJA-E1. I will
14 discuss the nature of this schedule later in my testimony.

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

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

18 A. The lead-lag study analyzed the Company’s cash transactions and invoices for
19 the twelve months ended March 31, 2006.

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

22 A. The cash working capital requirements should be included as part of
23 AmerenUE’s electric business rate base for ratemaking purposes.
24

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

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

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

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

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

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

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

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

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

7 A. Personnel in Ameren Services Company's (which provides support services
8 for AmerenUE's operations) Human Resources, Payroll, and Tax Departments were
9 interviewed to identify payment policies and procedures. Data from Ameren Services
10 Company's Accounts Payable, Customer Service, Payroll, and Tax Systems as well as
11 records from the Company's bank accounts were also utilized. The information derived from
12 these sources, together with analyses of specific invoices, led to the determination of the
13 appropriate number of lead-lag days for AmerenUE.

14 **A. Revenue Lags**

15 **Q. How is the revenue lag determined?**

16 A. The revenue lag is calculated by first dividing it into five distinct components:
17 1) service lag; 2) billing lag; 3) collections lag; 4) payment lag; and 5) bank float on
18 collections from customers. Considered together, these five components of retail revenue lag
19 totaled a weighted average of 40.11 lag days. An explanation of each component of the
20 revenue lag follows.

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

22 A. The service lag refers to the number of days from the mid-point of the service
23 period to the meter reading date for that service period. Using the mid-point methodology,

1 the average lag associated with meter reading was 15.21 days (365 days in the year divided
2 by 12 months divided by 2).

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

4 A. Billing lag refers to the average number of days from the date on which the
5 meter was read until the date the customer was billed. The billing lag was determined by
6 analyzing the Company's monthly billing schedules, and meter reading records.
7 Adjustments to such schedules and records on account of window billing were then made to
8 determine a billing lag of 0.97 days.

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

10 A. The collections lag refers to the average amount of time from the date when
11 the Company mailed a bill to the date that the Company received payment from its
12 customers. An aging report from the Company's customer service system was used to
13 determine the collections lag for AmerenUE's operations. Based on weighted average data
14 from the Company's Customer Service System and by considering accounts receivables
15 balances by class of customer by days aged, the average collection lag was determined to be
16 21.78 days.

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

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

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

22 A. The Company received payments from customers typically in one of two
23 ways: a) by check; or b) electronically. Electronic payments are from cash concentrators,

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

11 **Q. What is meant by bank float?**

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

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

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

Lag Component	Lag Days
Service Lag	15.21
Billing Lag	0.97
Collections Lag	21.78
Payment Lag	1.13
Bank Float	1.02
Total Lag Days	40.11

4 **B. Expense Leads**

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

6 A. Lead times associated with the following expense categories were considered
7 in the study: a) net interchange power sales; b) payroll; c) FICA (social security) and other
8 withholdings; d) employee pensions and benefits; e) other operations and maintenance
9 expenses; f) fuels – coal, oil, gas, and nuclear; g) general taxes including taxes other than
10 income taxes; h) federal income taxes; h) state income taxes; and i) interest on long-term
11 debt.

12 **Q. What is meant by lead time on net interchange power sales?**

13 A. As with most utilities in the country today, the Company engages in wholesale
14 transactions concerning electricity in a market administered by the Midwest Independent
15 Transmission System Operator (or “MISO”). Based on the billing and settlement terms of

1 the MISO tariff, NCI determined that the expense lead time associated with net interchange
2 power sales was 35.21 days. Since payments to the MISO are made electronically, no float
3 time was included.

4 **Q. What is the expense lead time associated with the Company's payroll and**
5 **withholding expenses?**

6 A. The Company's payroll records were analyzed to measure the number of lead
7 days between the Company's receipt of services from its employees and the related payment
8 for those services. On a dollar-weighted basis, the expense lead time associated with the
9 Company's net payroll, federal withholdings, state withholdings, and employee FICA
10 contributions was determined to be 11.24 days. This includes an expense lead time of 10.53
11 days associated with net payroll, 12.84 days associated with federal withholdings, 15.0 days
12 associated with state withholdings, and finally, 12.89 days associated with employee FICA
13 contributions.

14 **Q. Provide an explanation of the expense lead associated with the**
15 **Company's payroll expenses.**

16 A. Payroll lead days were calculated by: a) calculating the nominal and weighted
17 lead time by pay period, b) adding to the estimate of weighted lead an amount to cover the
18 float time where checks rather than direct deposits were used as the basis for compensating
19 employees, and c) weighting the resulting lead days by the amounts paid out by the Company
20 to cover their payroll obligations. To the extent that employees were reimbursed for their
21 services by check, an additional float time of 5.34 days was added. The resulting total on a
22 dollar-weighted basis, including float time, was 10.53 days.

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

3 A. The Company electronically transfers the dollar amounts associated with the
4 employee and employer share of FICA and state withholding taxes to the appropriate federal
5 and state authorities on their respective due dates – the next business day to the federal
6 authorities, and the third business day following the end of a pay period (periods end on the
7 7th, 15th, 22nd, and the last day of the month) to the state taxation authorities. Taking this
8 payment schedule into account and considering weekends and bank holidays, an incremental
9 lead time of 2.30 days was estimated for federal withholding and 2.36 days for social security
10 or FICA-related transactions. This lead time is “incremental” in the sense that it should be
11 added to the lead time on base payroll to derive the total amount of lead time associated with
12 federal withholding taxes. An incremental lead of 4.47 days was estimated for transactions
13 involving the State of Missouri for the twelve months ended March 31, 2006. When added to
14 the base payroll lead time, these lead time estimates total 12.84 days for federal withholding
15 remittances, 12.89 days for employer- and employee-related FICA remittances to the federal
16 government, and 15.00 days for remittances of state withholdings. Since the federal
17 withholding, FICA, and state withholding amounts are remitted to the respective authorities
18 via wire transfer, no additional bank float time was included in the analysis.

19 **Q. What types of leads associated with the Company’s employee benefit**
20 **programs were considered in the analysis?**

21 A. The estimated lead times associated with the following major categories of the
22 Company’s employee benefit programs were considered: a) contributions to the Company’s
23 pension fund; b) group life insurance, c) group health insurance including claims processing,

1 claims payment, and administration costs, and d) the Company's 401-K plan. Taken
2 together, these programs had a dollar-weighted lead time of 45.07 days for the twelve months
3 ended March 31, 2006.

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

6 A. The Company made contributions to its pension plan in February and
7 September of 2005 for calendar year 2005. Taking this information into account and using
8 the actual dates and dollar contributions made by the Company, a weighted average pension
9 expense lead time of 73.54 days was determined. Since these contributions were made
10 electronically, no additional float time was included.

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

13 A. The analysis of invoices paid to the Company's providers of group life
14 insurance indicated a weighted average lead time of 28.72 days. Since payments were made
15 electronically by the Company to its group life insurance carriers, no additional float time
16 was included.

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

19 A. The Company's group health insurance program had three major categories of
20 activities: a) claims processing (i.e., from the time a claim was filed to the time it was
21 processed), b) claims payment (i.e., from the time the provider provided the claim to the
22 Company for reimbursement and the time the reimbursement occurred), and
23 c) administration related expenses. Based on annual summaries of performance provided to

1 the Company by its group health plan administrators, the claims processing period was
2 determined to be 9.12 days. Additionally, based on actual service requests and electronic
3 payment instructions from the Company's Human Resources Department, the claims
4 reimbursement time was determined to be 17.77 days. Finally, based on an examination of
5 invoices and payment instructions from the Company's accounts payable system, a lead time
6 of 2.11 days was derived for group health administration expenses.

7 **Q. What was the expense lead for the Company's match associated with the**
8 **401-K plan?**

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

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

14 A. The Company engages in transactions with other vendors (not associated with
15 interchange power sales, payroll, benefits, pensions, interest payments, or taxes) for a variety
16 of purposes including facility maintenance, maintenance of system reliability, and customer
17 service. Invoices from providers of such services were analyzed in order to estimate a lead
18 time associated with payment for services related to other operations and maintenance
19 activities. The analysis indicates that on average, invoices were paid by the Company 50.72
20 days after receipt. This estimate of lead time relating to the Company's other operations and
21 maintenance expenses is the sum of 45.38 days of weighted invoice processing lead time
22 (including 15.21 days of service lead time) and 5.34 days of bank float since most of these
23 other operations and maintenance related expense payments were made by check.

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

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

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

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

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

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

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

17 A. Based on a review of a sample of invoices relating to nuclear fuel supply, a
18 weighted average lead time of 19.71 days was determined. Since payments to the
19 Company's vendors of nuclear fuels are made electronically, no additional float time was
20 considered in the analysis.

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

3 A. A sample of invoices related to purchases of coal, purchases of transportation
4 services, and other sundry coal-related items were examined to determine the expense lead
5 time associated with the Company's purchases of coal and related services. When weighted
6 by the dollar amounts shown on the invoices examined, a weighted average expense lead
7 time of 21.92 days was determined. Since the majority of payments to vendors of coal and
8 related services are made electronically, no additional float time was included in the analysis.

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

11 A. Based on an examination of a sample of invoices of the two major suppliers of
12 oil to the Company, a weighted average lead time of 35.45 days was determined. This
13 weighted average includes 5.34 days of bank float as both these vendors are paid by check.

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

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

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

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

- 1 a) **Federal Unemployment Taxes**: Federal unemployment taxes are due
2 quarterly by the 15th of the month following the end of the quarter. Taking
3 this information into account, a weighted average expense lead time of
4 60.63 days was determined. Since payments are made by wire transfer, no
5 additional bank float time was included.
- 6 b) **State Unemployment Taxes**: The Company does not pay state
7 unemployment taxes on behalf of its employees in the State of Missouri,
8 but does pay unemployment taxes on behalf of AmerenUE employees that
9 reside in the States of Illinois and Iowa and who work on AmerenUE
10 properties in those states. Like its federal counterpart, state
11 unemployment taxes are due quarterly by the 15th of the month following
12 the end of the quarter. Taking this information into account, a weighted
13 average expense lead time of 60.63 days was determined. Since payments
14 are made by wire transfer, no additional bank float time was included.
- 15 c) **Property Taxes**: All current-year property taxes in Missouri are due on
16 December 31st of the current year. Taking this schedule into
17 consideration, a dollar-weighted expense lead of 182.50 days was
18 calculated. Since payments are made by check, an additional float time of
19 5.34 days was included bringing the total weighted property tax expense
20 lead time estimate to 187.84 days.
- 21 d) **Corporation Franchise Taxes**: The State of Missouri levies a corporation
22 franchise tax on companies with in-state assets of \$1,000,000 or more.
23 The tax is due on April 15th of the current fiscal year. Based on this

1 information a negative expense lead time of negative 72.16 days was used
2 in the calculation of cash working capital associated with corporation
3 franchise taxes. Since the payment is made by check, this estimate of lag
4 includes bank float time.

5 e) **Missouri Sales and Use Taxes**: Missouri sales tax is payable to the
6 Missouri Department of Revenue and is calculated as a percent of billings
7 less a 2 percent timely payment allowance. These taxes are due monthly
8 by the 20th of the month following. Taking this information into account,
9 and including a half month of service lead time, a weighted expense lead
10 time of 35.21 days was determined. Since payments are made by check,
11 an additional 5.34 days of float was added resulting in a total weighted
12 sales tax expense lead time of 40.55 days.

13 Missouri and Iowa use taxes are payable to the Missouri and Iowa
14 Departments of Revenue for purchases made by the Company from out-
15 of-state (and is thus known as a compensating tax). This tax is paid
16 quarterly and is due on the last day of the month following the end of a
17 quarter. Based on when payments are due, a weighted lead time of 76.38
18 days was calculated. Since payments are made by check, an additional
19 float time of 5.34 days was included bringing the total use tax-related
20 expense lead time to 81.72 days.

21 f) **Gross Receipts Taxes**: In the State of Missouri, gross receipts taxes are
22 payable to municipalities and are typically estimated as a percent of
23 billings to customers within the municipality. The Company typically

1 pays these taxes on the last day of the month following the end of a
2 monthly, quarterly, semi-annual or annual tax period depending on the
3 municipality. Based on the specific tax periods of the various
4 municipalities, a dollar-weighted gross receipts tax expense lead time of
5 58.82 days was calculated. This lead time includes float since the
6 municipalities are paid by check.

7 g) **St. Louis Taxes:** The Company pays corporate earnings and payroll
8 expense taxes to the City of St. Louis. Both of these taxes are paid by
9 check to the City of St. Louis. The corporate earnings tax is paid in two
10 installments for the current year, while the payroll expense tax is paid
11 quarterly on the last day of the month following the end of a quarter.
12 Taking this information into account, the expense lead time associated
13 with corporate earnings taxes was determined to be a negative 2.66 days
14 and the payroll expense tax was determined to be 81.72 days. Both of
15 these lead times include float since they are both paid by check.

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

17 A. The lead time associated with federal income tax payments was based on the
18 provisions of the Internal Revenue Code that require estimated tax payments of 25 percent of
19 total income taxes to be paid on April 15, June 15, September 15, and December 15 of the
20 current year. Taking this schedule into consideration, a lead time of 60.63 days for federal
21 income tax payments made by the Company was determined. This lead time did not include
22 bank float since payments were made electronically.

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

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

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

8 A. Based on information provided by Mr. Weiss, an interest expense lead time of
9 91.75 days was included in the Company's analysis.

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

12 A. Yes. The results of the lead-lag study and the associated CWC factors are
13 presented in AmerenUE Schedule MJA-E1.

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

15 A. Yes, it does.

16

**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-2007-0002

AFFIDAVIT OF MICHAEL ADAMS

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

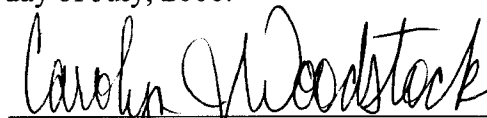
Michael Adams, being first duly sworn on his oath, states:

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, 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.



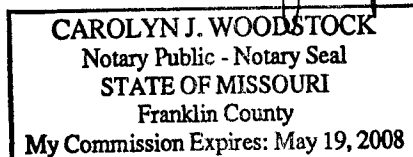
Michael Adams

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



Notary Public

My commission expires:



EXECUTIVE SUMMARY

Michael Adams

*Director in the Energy Practice
Navigant Consulting, Inc.*

* * * * *

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-E1.

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

Line No.	Description (A)	Revenue Lag Days (B)		Expense Lead Days (C)		Net Lag Days (D)		CWC Factor (E)	
1	Net Interchange Sales and Purchased Power	40.11		(35.21)		4.90		0.0134	
2	Payroll and Withholdings	40.11		(11.24)		28.87		0.0791	
3	Employer FICA Contribution	40.11		(12.89)		27.22		0.0746	
4	Pensions & Benefits	40.11		(45.07)		(4.96)		(0.0136)	
5	Other Operations and Maintenance Expenses	40.11		(50.72)		(10.61)		(0.0291)	
6	Fuel - Nuclear	40.11		(19.71)		20.41		0.0559	
7	Fuel - Coal	40.11		(21.92)		18.20		0.0499	
8	Fuel - Oil	40.11		(35.45)		4.66		0.0128	
9	Fuel - Gas	40.11		(39.73)		0.38		0.0011	
10	Federal Unemployment Taxes	40.11		(60.63)		(20.51)		(0.0562)	
11	State Unemployment Taxes	40.11		(60.63)		(20.51)		(0.0562)	
12	Property/Real Estate Taxes	40.11		(187.84)		(147.73)		(0.4047)	
13	Corporation Franchise Taxes	40.11		72.16		112.27		0.3076	
14	Sales Tax	40.11		(40.55)		(0.44)		(0.0012)	
15	Use Tax	40.11		(81.72)		(41.60)		(0.1140)	
16	Gross Receipts Taxes	40.11		(58.82)		(18.71)		(0.0513)	
17	St Louis Corporate Earnings Tax	40.11		2.66		42.77		0.1172	
18	St Louis Payroll Expense Tax	40.11		(81.72)		(41.60)		(0.1140)	
19	Federal Income Tax	40.11		(60.63)		(20.51)		(0.0562)	
20	State Income Tax	40.11		(60.63)		(20.51)		(0.0562)	
21	Interest Expense	40.11		(91.75)		(51.64)		(0.1415)	