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Missouri Public Service Commission

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Exhibit No.: 082

Cash Working Capital Michael Adams Union Electric Company Type of Exhibit: Direct Testimony ER-2007-0002

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

Ameren UE Exhibit No. S Case No(s). <u>Cl. -1007 - 0002</u> Date <u>3/24/07</u> Rptr <u>pk</u>

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1		DIRECT TESTIMONY
2		OF
3		MICHAEL ADAMS
4		CASE NO. ER-2007-0002
5]	I. INTRODUCTION AND WITNESS QUALIFICATIONS
6	Q.	Please state your name and business address.
7	Α.	My name is Michael Adams. My business address is 2508 Muirfield Road,
8	Springfield, I	Ilinois 62711.
9	Q.	By whom are you employed, and in what capacity?
10	A.	I am a Director in the Energy Practice of Navigant Consulting, Inc.
11	Q.	Please describe Navigant Consulting, Inc.
12	А.	Navigant Consulting, Inc. ("NCI") is a specialized independent consulting
13	firm providin	ng professional services to assist clients in identifying practical solutions to the
14	challenges o	f uncertainty, risk and distress. We focus on large industry segments that are
15	typically hig	hly regulated and are undergoing significant change.
16		NCI has served the electric and natural gas industries since 1983. We offer a
17	wide range	of consulting services related to business strategy and planning, operations
18	advisory ma	nagement, financial and transaction advisory activities, and technology and
19	innovation n	nanagement designed to assist our clients in a business environment of changing
20	regulation, in	ncreased competition and evolving technology.

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1	Q.	Please describe your education.
2	А.	I have an MBA in Finance from the University of Illinois at Springfield and a
3	BS in Accou	nting from Illinois College. I am a member of the American Institute of
4	Certified Pub	blic Accountants and the Illinois Society of Certified Public Accountants.
5	Q.	What are your responsibilities in your current position?
6	А.	As a consultant, my responsibilities include assisting clients in identifying and
7	addressing b	usiness issues. My primary areas of focus have been on regulatory-, financial-
8	and accounti	ng-related issues.
9	Q.	Please describe your qualifications.
10	Α.	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 er	ngagements and have testified in other regulatory proceedings. I have provided
14	expert testim	ony or reports on issues related to cash working capital requirements before the
15	Arkansas Pu	blic Service Commission, the Illinois Commerce Commission, the Missouri
16	Public Servi	ce Commission, the Oklahoma Public Service Commission, the Ontario Energy
17	Board, and t	he Pennsylvania Public Utility Commission. I have testified on other financial,
18	operational of	or regulatory matters before the Arkansas Public Service Commission, the
19	Illinois Com	merce Commission, the Massachusetts Department of Telecommunications and
20	Energy, and	the Pennsylvania Public Utility Commission.

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1		II. <u>PURPOSE AND SCOPE</u>
2	Q.	What is the purpose of your testimony?
3	Α.	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 Ame	renUE witness Gary S. Weiss to calculate the cash working capital requirements
7	of the Compa	any.
8	Q.	Please define what you mean by the phrase "cash working capital."
9	А.	Cash working capital is the amount of funds required to finance the day-to-
10	day operation	ns of the Company.
11	Q.	Are you sponsoring any schedules?
12	А.	Yes. In addition to my prepared testimony I am sponsoring Attachment A,
13	which is a su	mmary of my testimony. Also, I am sponsoring Schedule MJA-E1. I will
14	discuss the n	ature of this schedule later in my testimony.
15 16 17		III. <u>SUMMARY OF THE COMPANY'S CASH</u> WORKING CAPITAL ANALYSIS
18	Q.	For what period was the lead-lag study performed?
19	А.	The lead-lag study analyzed the Company's cash transactions and invoices for
20	the twelve m	onths ended March 31, 2006.
21	Q.	How should the results of the cash working capital analysis be treated for
22	ratemaking	purposes?
23	А.	The cash working capital requirements should be included as part of
24	AmerenUE's	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?

3 Α. 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 4 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 date. The "lead" and "lag" are both measured in days. The dollar-weighted lead and lag 7 8 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 9 amount of cash working capital required for operations. The resulting amount of cash 10 working capital is then included as part of the Company's rate base. The test year operating 11 12 expenses to which the leads and lags were applied are described in the direct testimony of Mr. Weiss. 13

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").

20

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.

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1	Q.	What is an expense lead?
2	Α.	The expense lead refers to the elapsed time from when a good or service is
3	provided to t	he Company to the point in time when the Company pays for the good or service
4	and the fund	s 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 y	your cash working capital analysis?
7	А.	Personnel in Ameren Services Company's (which provides support services
8	for Amerent	JE'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 source	s, together with analyses of specific invoices, led to the determination of the
13	appropriate	number of lead-lag days for AmerenUE.
14	A. <u>Reve</u>	enue Lags
15	Q.	How is the revenue lag determined?
16	А.	The revenue lag is calculated by first dividing it into five distinct components:
17	1) service la	g; 2) billing lag; 3) collections lag; 4) payment lag; and 5) bank float on
18	collections f	rom customers. Considered together, these five components of retail revenue lag
19	totaled a we	ighted 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	А.	The service lag refers to the number of days from the mid-point of the service
23	period to the	e 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?

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.

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.

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Q. What is meant by collections lag?

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11 the Company mailed a bill to the date that the Company received payment from its

The collections lag refers to the average amount of time from the date when

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?

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,

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.

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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.

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

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

3 in the following table:

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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. <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) net interchange power sales; b) payroll; c) FICA (social security) and other withholdings; d) employee pensions and benefits; e) other operations and maintenance expenses; f) fuels – coal, oil, gas, and nuclear; g) 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 meant by lead time on net interchange power sales?
A. As with most utilities in the country today, the Company engages in wholesale
transactions concerning electricity in a market administered by the Midwest Independent
Transmission System Operator (or "MISO"). Based on the billing and settlement terms of

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

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

6 The Company's payroll records were analyzed to measure the number of lead Α. days between the Company's receipt of services from its employees and the related payment 7 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 contributions was determined to be 11.24 days. This includes an expense lead time of 10.53 1011 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.

Q. Provide an explanation of the expense lead 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.

1 2

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

3 The Company electronically transfers the dollar amounts associated with the Α. employee and employer share of FICA and state withholding taxes to the appropriate federal 4 and state authorities on their respective due dates – the next business day to the federal 5 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 payment schedule into account and considering weekends and bank holidays, an incremental 8 9 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 10 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 involving the State of Missouri for the twelve months ended March 31, 2006. When added to 13 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 20programs were considered in the analysis?

21 Α. 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 together, these programs had a dollar-weighted lead time of 45.07 days for the twelve months 2 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 The Company made contributions to its pension plan in February and A. 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 Α. 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 The Company's group health insurance program had three major categories of Α. 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

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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
12	Q. What are other operations and maintenance expenses and what lead
12	times were associated with such expenses?
13	times were associated with such expenses?
13 14	times were associated with such expenses? A. The Company engages in transactions with other vendors (not associated with
13 14 15	times were associated with such expenses? A. The Company engages in transactions with other vendors (not associated with interchange power sales, payroll, benefits, pensions, interest payments, or taxes) for a variety
13 14 15 16	times were associated with such expenses? A. The Company engages in transactions with other vendors (not associated with interchange power sales, payroll, benefits, pensions, interest payments, or taxes) for a variety of purposes including facility maintenance, maintenance of system reliability, and customer
13 14 15 16 17	times were associated with such expenses? A. The Company engages in transactions with other vendors (not associated with interchange power sales, 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
13 14 15 16 17 18	times were associated with such expenses? A. The Company engages in transactions with other vendors (not associated with interchange power sales, 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
13 14 15 16 17 18 19	times were associated with such expenses? A. The Company engages in transactions with other vendors (not associated with interchange power sales, 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
 13 14 15 16 17 18 19 20 	times were associated with such expenses? A. The Company engages in transactions with other vendors (not associated with interchange power sales, 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

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1	Q.	What does bank float mean in the context of the Company's accounts
2	payables?	
3	А.	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	А.	It is the Company's intent to present an unbiased and comprehensive analysis
8	of its cash w	orking capital requirements to the Commission in this proceeding; thus, the
9	estimate of f	loat (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	Α.	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	А.	Based on a review of a sample of invoices relating to nuclear fuel supply, a
18	weighted av	verage 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 i	n 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 sample of invoices related to purchases of coal, purchases of transportation Α. services, and other sundry coal-related items were examined to determine the expense lead 4 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 time of 21.92 days was determined. Since the majority of payments to vendors of coal and 7 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 of oil to support its electric operations? 10 Based on an examination of a sample of invoices of the two major suppliers of 11 Α. oil to the Company, a weighted average lead time of 35.45 days was determined. This 12 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? Each category of taxes and how it was considered in the Company's study is 21 A. 22 described below:

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1	a)	<i>Federal Unemployment Taxes</i> : Federal unemployment taxes are due
2		quarterly by the 15 th 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 15 th 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

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1	information a negative expense lead time of negative 72.16 days was used	ł
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	5
7	less a 2 percent timely payment allowance. These taxes are due monthly	
8	by the 20^{th} of the month following. Taking this information into account,	I
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	L
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	

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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) <u>St. Louis Taxes</u> : 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.

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1	Q.	How did you consider state income taxes in your study?					
2	А.	State income taxes follow a pattern similar to federal taxes. Thus, assuming					
3	quarterly payı	nents due on the 15 th 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	Α.	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	А.	Yes, it does.					
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BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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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:

My name is Michael Adams. I work in Springfield, Illinois and I am a 1. Director in the Energy Practice of Navigant Consulting, Inc.

Attached hereto and made a part hereof for all purposes is my Direct 2. 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.

My commission expires:

CAROLYN J. WOODSTOCK						
Notary Public - Notary Seal						
STATE OF MISSOURI						
Franklin County						
lay 19, 20)08					
	y Seal URI					

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-E1.

Line		Revenue Lag	Expense Lead		
No.	Description	Days	Days	Net Lag Days	CWC Factor
	(A)	(B)	(C)	(D)	(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)
10	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)
20	Interest Expense	40.11	(91.75)	(51.64)	(0.1415)

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