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Witness:	Michael Adams
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EC-2002-1

REBUTTAL TESTIMONY

OF

MICHAEL ADAMS

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

Exhibit No. 152
Date 7/10/02 Case No. EC-2002-1
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MISSOURI PUBLIC SERVICE COMMISSION

Case No. EC-2002-1

REBUTTAL TESTIMONY OF MICHAEL ADAMS

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MICHAEL ADAMS

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I. INTRODUCTION AND WITNESS QUALIFICATIONS

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 and Water Practice of Navigant Consulting, Inc.

Q. Please describe Navigant Consulting, Inc.

A. Navigant Consulting, Inc. is a global management consulting firm that has over 1,200 professionals located in 41 offices worldwide. We have two major practice areas; Energy and Water and Financial and Claims. 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 (

"FERC"), 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.

II. PURPOSE AND SCOPE

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to the cash working capital calculation sponsored by Staff witness Teel in the Direct Case of the Staff of the Missouri Public Service Commission ("PSC" or the "Commission"). I also present the results of AmerenUE's (the "Company") cash working capital analysis. As part of my testimony, I have prepared an **Executive Summary** attached hereto as Appendix A.

Q. Are you sponsoring any schedules?

A. Yes. In addition to my prepared testimony, I am sponsoring Schedule 1. I will discuss the nature of the schedules later in my testimony.

III. CRITIQUE OF STAFF WITNESS TEEL's CASH WORKING CAPITAL CALCULATION

Q. Have you reviewed Staff's cash working capital calculation as presented by Staff witness Teel?

A. Yes I have.

Q. Do you have any opinions as to the accuracy and veracity of that study?

A. Based upon my review, I have found Staff witness Teel's calculation of the Company's cash working capital requirement to be deficient in many respects. I found that Ms. Teel has included non-cash factors in her calculation, which serves to seriously understate the Company's true cash working capital requirement. Staff witness Teel has also based her billing lag on erroneous and unsubstantiated assumptions. Further, Staff has relied upon data from a number of different time periods, invariably producing inconsistent results. Finally, Staff's calculation or omission of a number of certain revenue lags and expense leads undermines the comprehensiveness and, hence, accuracy of the calculation.

Q. What non-cash factors are presented in Staff witness Teel's presentation of cash working capital?

A. Staff witness Teel has inappropriately included the Company's Vacation Accrual, a balance sheet item, in her cash working capital analysis.

Q. What does the vacation accrual represent?

A. The vacation accrual represents a liability on behalf of the Company associated with vacation time that employees have become eligible to take but have not

yet taken. If the Company were to go out of business, the employees would be owed the amount of vacation pay accrued on the balance sheet.

Q. Is it appropriate to include the vacation accrual in a cash working capital analysis?

A. No, as I previously stated, the item represents an accrual to reflect potential liabilities. The vacation accrual included in Staff witness Teel's cash working capital calculation does not represent an annual expense or a disbursement of cash. Rather, the vacation accrual remains on the Company's balance sheet to reflect a potential liability.

Q. How is the vacation accrual different than the other factors that Staff includes in their estimation of cash working capital?

A. Staff's cash working capital calculation, for the most part, examines the time differential between the provisioning of a service and the payment associated with such service. This time differential is measured in terms of lead or lag days. The lead or lag days are then applied to the cash outlays or receipts associated with the service.

In the case of the vacation accrual, Staff's approach assumes that the entire vacation accrual is paid out annually. Further, Staff assumes that the vacation accrual "service" is provided on average exactly one year before "payment" is made, a lead day factor of 365 days. Neither of Staff's assumptions is correct. The vacation accrual remains on the Company's balance sheet from year to year.

Staff witness Teel's treatment of the vacation accrual infers that an employee of the Company has the opportunity to earn extra cash while on vacation, albeit after a one-year lag. An employee does not "earn" a cash payment for vacation time by

working the previous year. An employee of the Company earns his/her regular paycheck while on vacation. Under UE's vacation policy, employees merely become eligible to receive their regular paychecks while taking time off, away from the office. What is "earned" is the right to take time off. For Staff witness Teel's treatment to be accurate either the Company would need to go out of business or, conversely, every employee would have to quit after they had vested vacation time. Neither scenario is likely to occur. Thus, vacation payroll is not a legitimate cash expense and should not be considered in a cash working capital analysis.

Q. Does the PSC Staff have a position regarding the inclusion of non-cash items in lead lag studies?

A. Yes. Based upon my review of Staff's Cash Working Capital handbook, which was provided by Staff witness Teel in response to a data request, Staff is opposed to the inclusion of non-cash items in lead lag studies. The handbook correctly states, "the utility does not need to have cash on hand for these expenses because there is no cash outlay associated with these items." (Cash Working Capital White Paper, p. 21). This handbook is the only text Staff witness Teel relied upon to learn how to analyze cash working capital needs. (November 19, 2001 Deposition of Leasha Teel, pg. 71, lines 2 through 21).

Further, as Staff witness Teel stated during her April 18, 2002 deposition, according to the Staff handbook "the reason staff is opposed inclusion of these noncash items in lead lag studies and the reason the Commission has without exception ruled against utilities on this point is that the inclusion of these items defeats the purpose of

cash working capital as allowance as staff defines it." (p. 61, lines 2 – 9) (emphasis added).

Q. What reason does Staff witness Teel provide for deviating from Staff's position regarding the inclusion of non-cash items in lead lag studies?

A. Staff provides no explanation for their apparent about face on the issue of non-cash items being excluded from cash working capital studies other than to state "because the Company was accruing vacation payroll." (April 18, 2002 Deposition of Leasha Teel, p. 65, lines 15 – 16).

Q. What impact does the inclusion of the vacation accrual have when determining an appropriate level of cash working capital?

A. As shown on Staff's Accounting Schedule 8, the inappropriate inclusion of the vacation accrual in the determination of the level of required cash working capital reduced Staff's calculation of AmerenUE's overall cash working capital requirement by over $13.4 million. This one element of Staff's analysis represents the primary difference between the Company's and Staff's calculations of required cash working capital.

Q. Does anyone else, to your knowledge, include non-cash items in cash working capital analysis?

A. I am not aware of any other Public Service Commissions that include non-cash items in cash working capital analysis. It is the generally accepted practice to exclude non-cash items.

Q. Please explain your concerns regarding the billing lag estimate used by Staff witness Teel?

A. Staff witness Teel defines billing lag as "the period of time between the end of the last day of a service period and the day the bill is placed in the mail by AmerenUE." (March 2002 Testimony, Page 18, lines 5 and 6). She further states that "the billing lag was determined by analyzing the number of days between the end of the service period and the day the bill was mailed." (March 2002 Testimony, Page 18, lines 22 and 23). I agree with Staff witness Teel's definition of billing lag and how it should be measured. The problem arises from an erroneous and unsubstantiated assumption made by Ms. Teel related to the installation of an automated meter reading system. Ms. Teel assumes that "the billing lag has decreased due to the installation and implementation of an automated meter reading system." (March 2002 Testimony, Page 19, lines 5 and 6). Such an assumption is completely without merit. The implementation of the automated meter reading system has not impacted the number of days between end of the service period and the day the bill was mailed.

Indeed, Ms Teel conceded that if the implementation of the automated meter reading system did not impact the mailing date of a customer's bill that there would be no impact on the billing lag. (April 18, 2002 Deposition of Leasha Teel, p. 72, lines 3 – 10). Ms. Teel does not know whether the billing schedule has been impacted by the implement of the automated meter reading system. (April 18, 2002 Deposition of Leasha Teel, p. 71, lines 11 through 16). Staff witness Teel also confirmed that no one from the Company told her that there would be a reduction of the billing schedule. (April 18, 2002 Deposition of Leasha Teel, p. 71, lines 17 through 19).

Q. What billing lag does Staff witness Teel use in her determination of cash working capital?

A. Staff witness Teel employs a billing lag of 1.44 days. A billing lag of 2.8 days was used by her colleagues in Case GR-2000-512 (Staff witness Harrison) and Case GR-97-393 (Staff witness Fischer).

Q. Please explain the approach used by Staff witness Teel to develop the billing lag.

A. Staff witness Teel developed the billing lag by obtaining the meter reading reports from AmerenUE to determine the aggregate average days between the day the meter was read and the time the bill was mailed. (Response to JJC-39). While her initial efforts were appropriate, Ms. Teel then inappropriately excluded 1.36 days from the billing lag based upon her "belief that the implementation of an automated meter reading system would logically decrease the amount of time it takes to physically go out and read the meters, compile, print and send the bills to customers." (Staff witness Teel's response to JJC-39, Part B). Despite Ms. Teel's "belief," the Company's billing schedule has not been reduced or otherwise impacted by the implementation of the automated meter reading system.

Q. Please describe the data used to calculate the billing lag.

A. AmerenUE's Billing Department prepares and adheres to a set billing schedule for each of the Company's billing cycles. The schedule is reflected on the Company's credit and collections report. The billing lag reflects the elapsed time from the meter read date to the billing date for each cycle. As previously stated, the

implementation of the automated meter reading system has not impacted the billing cycles.

Q. Have you calculated the appropriate billing lag?

A. Yes. Utilizing the Company's credit and collections report, for each of the billing cycles during the twelve months ended September 30, 2001, the billing lag should be 2.94 days.

Q. Is Staff witness Teel's cash working capital calculation based upon current information?

A. No. Staff witness Teel noted in her direct testimony that her calculation of cash working capital relied on a lead-lag study developed in the Company's last gas rate case (GR-2000-512), with updates for revenue lags, fuel expense leads, cash vouchers, property tax, and gross receipts taxes. Excluding the leads associated with fuel expenses (which were not considered in the Company's last gas rate case), Staff's rationale for updating these leads and lags was that these are the items that have most likely changed since the Company's last gas rate case. (March 2002 Testimony of Leasha S. Teel at 16). A review of Staff's testimony in the Company's last gas rate case (GR-2000-512) indicates that the expense leads associated with Federal Unemployment Tax payments, Corporation Franchise Tax payments, and Missouri Sales and Use Tax Payments (i.e., items that were not updated by Staff witness Teel in the current proceeding) were adopted from a prior gas rate case (GR-97-393) which used a 1996 test year. Thus, for these expense items, Staff is relying on data that is at least five-years old to derive the Company's cash working capital requirements on a going-forward basis in the current proceeding. Even if the 1996 data were updated in the Company's last gas rate case (e.g.,

as is the case with Federal and State Withholding and FICA taxes) prior to its use in the current proceeding, Staff witness Teel would still be using dated information (over three years old) in her calculation and as the basis for her recommendation regarding the Company's cash working capital requirements on a going-forward basis. Staff's analysis, which is based on information derived from varying historical time periods, is therefore internally inconsistent in that it uses multiple reference points. For the same reason, Staff's calculation most likely ignores changes in the Company's operations associated with those revenue and expense lags and leads that have not been updated since the Company's 1997 gas rate case which may materially affect the Company's cash working capital requirements on a going-forward basis. For these reasons, Staff's calculation should not be relied upon to establish the appropriate level of cash working capital for AmerenUE in this proceeding.

Q. Do you have additional concerns regarding Staff witness Teel's calculation of AmerenUE's cash working capital requirement?

A. I have three additional concerns regarding Ms. Teel's calculation of cash working capital requirement. First, her calculation does not include all of the revenue lags. Second, Ms. Teel does not consider all of the expense leads. Finally, Staff erroneously calculates a number of expense leads.

Q. What revenue lags were not considered in Staff witness Teel's analysis?

A. Staff witness Teel considered only retail revenue lags and has not considered the lag associated with collection of revenues from wholesale sales of electricity (i.e., the lag associated with the receipts of cash from the Company's

interchange sales).

Q. Why is it appropriate to consider the revenue lag associated with wholesale sales of electricity?

A. Wholesale sales transactions are provided, billed and collected on a significantly different schedule than the Company's retail revenues. Wholesale transactions are billed on or about the fifth of each month and cash is received on or about the 20th of the month. Given the unique nature of the wholesale transactions, it is appropriate to consider these revenues separate from the retail revenues.

Q. What retail revenue lags have not been considered in Staff witness Teel's study?

A. In proposing that the Commission adopt a total of 38.87 revenue lag days, Staff witness Teel has considered only the lags associated with meter reading, billing, and collections. Staff does not include the lag associated with payment and bank float in their presentation.

Q. Does Staff witness Teel recognize that the lag (or lead) associated with payment methods should be considered in the computation of revenue lags?

A. Yes. In her deposition taken November 19, 2001, Staff witness Teel recognized that a payment method such as Direct Pay, if taken into account in the calculation of retail revenue lags, would have actually reduced the cash working capital that would have to be contributed by customers to the extent that it reduced the lag in receipt of payments from customers (November 19, 2001 Deposition of Leasha Teel, page 53, lines 2-6,).

Q. What expense leads were not considered by Staff witness Teel?

A. Staff witness Teel did not separately consider the lead times associated with Pensions and Benefits related payments and payments for Purchased Power in her calculation of cash working capital.

Q. What approach did Staff witness Teel take regarding pensions and benefits and purchased power?

A. Staff witness Teel considered the lead time associated with a "bundle" of expense items termed "Cash Vouchers" which possibly included both pensions and benefits as well as purchased power. According to her testimony, this bundle of expense items included invoices associated with Company payments for goods and services accounted for by the Company in its FERC 500 and FERC 900 expense accounts less some invoices that were considered elsewhere in her study.

Q. Why is Staff witness Teel's approach for considering pensions and benefits and purchased power inappropriate?

A. Staff witness Teel has "averaged" the working capital needs of several business areas of the Company thereby ignoring the specific (and in some instances, specialized) working capital needs of each business area. Considering that "cash vouchers" are the single largest expense item in Staff witness Teel's Accounting Schedule 8, this poses a significant problem in terms of misstating the amount of cash working capital required by the Company. Staff witness Teel's approach should, in theory, not pose a problem if all business areas that fall into her choice of FERC 500 and 900 series of accounts approach her calculated average lead time on payments for services provided. This, however, is definitely not the case. Payments related to pensions and benefits and purchased power are significantly above the average in terms

of lead times--i.e., lead times of 41.08 days and 45.02 days respectively.

Q. What concerns do you have regarding Staff witness Teel's calculation of the lead times associated with fuel expenses?

A. Staff witness Teel does not include the lead times associated with check payments to vendors of fuel including float time, i.e., the average amount of time it takes for a check to clear the Company's bank account, approximately 5 to 6 days on average. This omission acts to understate the expense lead time thereby overstating the Company's cash working capital requirement associated with its fuel expenses.

Q. Has Staff considered pre-payments in their calculation of the Company's rate base?

A. Staff witness Harrison recommends the exclusion of Taxes, Rents, Regulatory Commission Expenses, and Rail Freight on Coal on the grounds that it has been considered in the calculation of the cash working capital requirements of the Company. An examination of staff's work papers reveals that these items were considered as part of taxes, cash vouchers, and coal expenses in their determination of the cash working capital requirements of the Company.

Q. Is this treatment of pre-payments appropriate?

A. It is unclear whether Staff's proposed treatment of prepayments is appropriate or not. Staff witness Teel's testimony and workpapers are silent on how Staff has purportedly included the prepayments in her calculation. It is clear, however, that certain prepayments have been excluded by Staff witness Harrison.

As the name suggests, prepayments reflect an expense in one year for which the related service may be received over later periods. Historically, regulators

have allowed the expense associated with one year's worth of service to be included in operating expenses. The unamortized expense would be included in rate base. This treatment provides a proper matching of the incurrence of the expense and the provisioning of service. In other words, only the expense associated with a service received in a particular year would be included in the Company's operating expenses. The remaining portion (i.e., the prepaid expense) would be included in rate base until such time as the service to which the expense relates is received. By including prepayments in rate base, the Commission is appropriately allowing the Company to earn a return on and of actual expenditures that are not reflected in operating expenses until such time as the service is received.

Prepayments would only be considered in a cash working capital analysis to the extent the entire payment for a service or the amortized annual expense is reflected in allowed operating expenses. Until such time as Staff witness Teel can elaborate on how these prepayments were treated in her calculation, it is unclear whether the proposed treatment is appropriate.

Q. What prepayments has Staff purportedly included in its cash working capital analysis?

A. According to Staff witness Teel's response to AmerenUE's data request JJC-54, Rent and Regulatory Commission Expenses were included in cash vouchers. Freight expense was included in the coal fuel lag, and Gross Receipts tax was included as its own lag. She has not elaborated, however, on the specific amount of prepayments are included.

Q. Is Staff witness Teel's presentation of the lead times associated with general taxes complete?

A. No. Besides the general concern regarding the use of multiple time periods discussed earlier, there are three additional concerns regarding Staff's treatment of general taxes in their presentation of cash working capital. First, Staff witness Teel does not consider the lead times associated with the Company's payments of Saint Louis Corporate Earnings in her calculation. Second, Staff witness Teel does not consider the lead times associated with State Unemployment taxes made on behalf of the Company's employees working on the Company's properties in Illinois and Iowa and merely lumped these payments with the federal unemployment taxes. April 28, 2002 Teel Deposition at 80:5-9. Since Staff witness Teel does consider the lead times associated with property tax payments made by the Company on account of its real property holdings in Illinois and Iowa, one would expect, for reasons of consistency, consideration be given to the lead times on both state unemployment tax expenses and property tax expenses incurred by the Company in the states of Illinois and Iowa, since AmerenUE employees are responsible for operating and maintaining the AmerenUE's properties in Illinois and Iowa. Third, Staff witness Teel mentions that both Sales and Use Taxes were considered in her presentation. However, no mention is made of how Missouri Use taxes were considered in her analysis.

Q. Is Staff witness Teel's consideration of the lead time on Missouri State Income Taxes complete?

A. No. According to her testimony, Staff witness Teel assumes that State Income Taxes are paid on the same schedule as Federal Income Taxes. If this were

indeed the case, it would be inconceivable that the lead times associated with the Company's federal and state income taxes would be 37 and 62.15 days respectively as stated in the testimony of Staff witness Teel on page 26 line 4.

Q. Has Staff witness Teel computed the lead time on the Company's interest payments appropriately?

A. No. Staff witness Teel cites a lead time of 89.02 days, which she adopts from the last gas rate case (GR-2000-512). A review of Staff's work-papers from the last gas rate case indicates that Staff does not use a true mid-point approach which requires the consideration of both pre-payments as well as post-payments relative to the mid point of an interest payment period (which, for the Company, is twice a year).

Q. Provide an example of the mid-point method that should be used to calculate the expense lead on the Company's interest expenses?

A. Suppose the Company pays interest twice a year on a bond on the first day of April and October of each year. If the payments on the bond were "normally distributed", payments would be due on the last day of June and December of the year respectively (i.e., the "mid-points" of the year). Since the Company makes a payment on April 1 and October 1 of the year, customers are pre-paying the interest expense over the period January 1 through April 1 (i.e., an expense lead of 90 days) and post-paying the interest expense from April 1 through June 30 (i.e., an expense lag of 91 days). Similarly, customers are pre-paying the interest expense on the second payment over the period June 30 through October 1 (i.e., and expense lead of 91 days) and post-paying the interest expense on the second payment over the period October 1 through December 31 (i.e., an expense lag of 93 days). Thus, in this example, there is a net expense lag of 3

days associated with both interest payments made by the Company (i.e., expense leads of 90 plus 91 days less expense lags of 91 plus 93 days). The total of all pre- and post-paid expense leads and lags on all interest expense payments made by the Company, weighted by the amount paid by interest payment, is what should be used as a measure of the expense lead associated with interest expense payments.

Q. How should the expense lead times associated with the Company's payments of federal income taxes be calculated?

A. A mid-point methodology that considers both pre- and post-payments relative to the mid-point should be used. The Company makes federal income tax payments in equal installments on April 15th, June 15th, September 15th, and December 15th of any given year to approximate payments by quarter for the current year. The first payment is entirely pre-paid by customers in the amount of 52.5 days (i.e., the mid-point of the 105 days between January 1 and April 15). The second payment made by the Company is pre-paid by customers over the period April 16th through June 15th and post-paid for the period June 16th through June 30th or the end of the quarter. Similarly, there are pre- and post-payments associated with the third and fourth payments respectively. All these pre- and post-payments should be considered relative to their respective mid-points and then weighted by the percentage of taxes due (i.e., 25 percent per payment) to derive the weighted expense lead on federal income taxes.

Q. How should the expense lead times associated with the Company's payments of state income taxes be calculated?

A. The computation of the expense lead time associated with the Company's state income tax payments should be calculated in a manner similar to that used for

calculating expense lead times associated with federal income taxes, with one notable exception.

Q. What exception would apply to the calculation of expense lead times associated with state income taxes?

A. It should be noted that the Company pays an estimated 22.5 percent of its state income tax liability on April 15th, June 15th, September 15th, and December 15th of the current year. The remaining 10 percent of the state income tax liability is paid on April 15th of the year following.

Q. What is your recommendation regarding the Commission's adoption of Staff witness Teel's cash working capital calculation?

A. Given the concerns cited above, the Commission should reject Ms. Teel's cash working capital calculation. It is wrought with errors and does not provide an accurate portrayal of AmerenUE's cash working capital requirement. If Ms. Teel's calculation is adopted, the Commission should, at a minimum, exclude non-cash items from the calculation (i.e., the vacation accrual) and correct the billing lag estimate employed by Ms. Teel.

Q. Has the Company prepared an alternative determination of AmerenUE's cash working capital requirement?

A. Yes, the Company has prepared a comprehensive lead lag study employing data from the test year ending September 30, 2001. The results of the analysis are discussed below.

IV. SUMMARY OF THE COMPANY'S CASH WORKING CAPITAL ANALYSIS

Q. Has the Company performed a study to determine the level of cash working capital required to finance its day-to-day operations?

A. Yes, the Company has performed a lead-lag study by analyzing its cash transactions and invoices for the twelve months ended September 30, 2001.

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. One measure of the cash working capital requirement is the difference between the Company's receivables and payables.

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

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

Q. What is a revenue lag?

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

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 annual test-year expense 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 rebuttal testimony of the Company's witness Mr. Weiss.

Q. What was the source of information employed to determine the leads and lags?

A. Personnel in the Company's Human Resources, Payroll, and Tax Departments were interviewed to identify payment policies and procedures. Data was also gathered from the Company's accounts payable system, the interchange sales tracking database, the billing and collections department, the "Report 1900" from accounts receivables, 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 the 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) sales

of electricity to end-use customers (i.e., retail revenues), and 2) sales of electricity in wholesale or interchange markets (i.e., interchange sales). Given the differences in nature of the billing and payment processes between retail revenues and interchange sales, the Company's analysis treats the two types of revenue lags differently.

Q. How are retail revenue lags determined?

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. The Company's retail revenue lag was analyzed in five distinct steps: 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 40.23 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 methodology, 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. The billing lag was determined by analyzing the Company's monthly billing schedules and meter reading records. By analyzing each of the Company's 21 monthly billing cycles, the average billing lag was determined to be 2.94 lag days.

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 payments. This lag is calculated by considering accounts receivables balances by class of customer by days aged. The collections ("accounts receivable") lag was determined to be 20.57 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 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. The Company's customer accounts personnel report 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), the Company's study estimates a 1.52 day payment lag for the twelve months ended

September 30, 2001.

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 indicates that there is a float time of about one-half day 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 interchange sales lag?

A. As with most utilities in the country today, the Company engages in wholesale transactions concerning electricity. These, typically short-term transactions, are usually driven by a combination of economic and system reliability factors. For example, if the Company anticipates that the cost of electricity in the wholesale marketplace is lower than what it would cost the Company to generate, then the Company buys the power from the wholesale market. In other instances (for example, when the Company's generating plants are off-line for scheduled maintenance purposes), the Company buys electricity from the wholesale market to substitute for what it might have otherwise been able to generate from its own power plants. By the same token, the Company sells excess generation to other participants in the wholesale market who may have similar reasons to purchase electricity from the Company rather than generate their own. An examination of invoices from transactions where the Company sold electricity to other participants in the wholesale marketplace indicate that the interchange sales lag for the twelve months ended September 30, 2001 is 50.4 days including a month's service lag. Since the Company receives payment over 90 percent of the time via wire transfer

there is no additional float time associated with the Company's receipt of cash from interchange sales.

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

A. Lead times associated with the following expense categories were considered in the Company's study: a) Pensions and Benefits; b) Purchased Power; c) Base Payroll; d) FICA (Social Security) and Other Withholdings; e) Fuel; f) Other Operations and Maintenance expenses; g) Uncollectibles; h) General Taxes; i) Federal Income Taxes; j) State Income Taxes; and k) 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. Lead times associated with the following major categories of the Company's pensions and benefit programs were estimated: a) Group Life Insurance, b) Group Health Insurance including claims and administration costs, and c) the Company's 401-K plan. Pensions were not considered in this analysis because the Company's personnel notified me that the Company had discontinued making contributions to its pension fund. Taken together, these pensions and benefits programs have a dollar-weighted lead time of 41.09 days for the twelve months ended September 30, 2001.

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 for both AmerenUE as well as Ameren Services employees indicates a weighted average lead time of about 98.24 days. Since payments are made by check to the provider, an

additional float time of 5.64 days was added to this estimate, resulting in a total lead time of about 103.9 days for the twelve months ended September 30, 2001.

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

A. The Company's group health insurance program has two major categories of expenses associated with it: a) claims related expenses, and b) administration related expenses. To determine the lead days associated with claims payments related to group health insurance, it was 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), 90+ percent of claims are processed within 10 days of receipt; the balance is typically processed within 15-20 days. Taking this information into account, the claims processing period was estimated to be 9.97 days. Using the mid-point approach, there are 4.99 days between the time a claim is made and the time it is processed by the carrier (9.97 days divided by 2). The Company transfers payment via check to the health insurance carrier on the same day the invoice is received. Since the invoice covers the claims paid during the prior week, an additional 4.5 days are added to the lead time (7 days in billed week plus 2 weekend days divided by 2) resulting in a total lead time of 9.49 days. Combined with an estimated bank float time of about 5.64 days, the total lead time associated with the claims category of group health insurance is 15.13 days. Additionally, based on an examination of invoices from the Company's accounts payable system, a lead time of 9.34 days for the twelve months ended September 30, 2001 was estimated on account of group health administration expenses. Since payments to the group health

administrator(s) are made by check, the estimates of administration-related lead time includes bank float.

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

A. An examination of invoices issued by the Company's administrator of its 401-K plan (Northern Trust for the twelve months ended September 30, 2001) indicates that on average, the Company wires funds to its administrator about 21.8 days after the beginning of each pay-period. This is intended to provide both the Company as well as its 401-K 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 considered.

Q. What types of leads can one expect with the Company's purchases from the interchange energy marketplace ("purchased power")?

A. As mentioned earlier, the Company engages in wholesale transactions concerning electricity. The Company engages in short-term purchases of generation related product and service from other participants in the wholesale market for economic and/or reliability related reasons. An examination of invoices from transactions where the Company bought electricity from other participants in the wholesale market place indicate that the purchased power lag for the twelve months ended September 30, 2001 is 45.02 days including a month's service lag. Since the Company pays for short-term purchases over 90 percent of the time via wire transfer there is no additional float time involved.

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

payroll expenses.

A. An analysis of payroll records was performed to measure the lead days between the receipt of services from employees to 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 were paid on the 15th and the last day of the month. In general, over 95 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 a) calculating the nominal and weighted lead time by pay-group, b) weighting the lead days by the total annual dollar amount of each payroll cycle, and c) 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 11.13 days for the twelve months ended September 30, 2001.

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,

an incremental lead time of 1.69 days was estimated for Federal Withholding and Social Security or FICA related transactions. The lead time is "incremental" in the sense that this estimate of lead should be added to the lead time on base payroll to derive the total amount of lead time associated with Federal Withholding Taxes. By the same token, an incremental lead of 6.4 days was estimated for transactions involving the state of Missouri for the twelve months ended September 30, 2001. When added to the base payroll lead time, these lead estimates total 12.82 and 17.54 days for federal and state level transactions respectively. Since the respective 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 the lead effects associated with the Company's fuel related expenses?

A. Considered in this analysis were payments made by the Company for a) Nuclear Fuel; b) Coal (including freight and tires); c) Oil; and d) Natural Gas. As with the determination of leads and lags for other operating expense items, the analysis of the expense leads (or lags) associated with fuel purchases was based on an examination of actual invoices tendered by vendors of fuels to the Company. An analysis of invoices from the Company's accounts payable system revealed that, on a dollar-weighted basis, the Company:

a) paid its major vendors of nuclear fuel and fuel related products and services 29.18 days after receipt of invoices for the twelve months ended September 30, 2001. Since most payments to vendors of

nuclear fuel and fuel related services are by wire transfer, no additional float time was considered.

b) paid its vendors of coal, freight services, and tires approximately 13.94 days after receipt of invoices for the twelve months ended September 30, 2001. Since freight and tire invoices (the majority of invoices) are paid by check, an additional float time was considered bringing the total lead times associated with payments for coal, freight, and tires to 19.54 days for the twelve months ended September 30, 2001.

c) paid its oil vendors 13.48 days after receipt of invoices for the twelve months ended September 30, 2001. Since payments are made by check, an additional float time was considered bring the total lead time to 19. 08 days for the twelve months ended September 30, 2001.

d) paid its vendors of natural gas approximately 10.53 days after receipt of invoices for the twelve months ended September 30, 2001. Since payments to vendors of natural gas are predominantly made by wire transfer, no additional float time was considered.

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, fuel, or wholesale energy market transactions) for a variety of purposes including facility maintenance, 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 Company's analysis indicates that on average, invoices were paid by the Company 19.95 days after they were received. The estimate of lead time relating to Other Operations and Maintenance Expenses includes 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 period 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 before 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. Discuss the approach taken with estimating the bank "float" on the Company's accounts payables.

A. The estimate of float time was calculated using data on cancelled checks provided by the Company's bank. A sample of approximately 3,2000 checks, randomly drawn from the Company's bank records, issued by the Company during the twelve months ended September 30, 2001 was used in the analysis. The average dollar amount on the checks reviewed was about $31,000 with the largest being about $4.6 million and the smallest being $1.34. The median of the sample checks was about $1,000. On a

dollar-weighted basis, the Company's analysis indicates that the average float time is about 5.6 days.

Q. What are the various General Taxes considered in the Company's analysis?

A. The following General Taxes were considered in the Company's study: a) Federal Unemployment Taxes; b) State Unemployment Taxes (Illinois and Iowa only); c) Property Taxes; d) Corporation Franchise taxes; e) Sales and Use Taxes; f) Gross Receipts Taxes; and g) Saint Louis Corporate Earnings and Payroll Expense Taxes.

Q. Explain the lead effects associated with each type of General Taxes considered in the Company's analysis.

A. Each category of General Taxes and how it was considered in the Company's 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, a dollar-weighted lead of 65.22 days was determined and used in the calculation of the appropriate CWC factor. Since payments are made by wire transfer, no additional bank float time was considered.

b) State Unemployment Taxes: The Company does not pay state unemployment taxes on behalf of its employees in the state of Missouri but does pay unemployment taxes on behalf of AmerenUE employees that reside in the states of Illinois and Iowa and who work on AmerenUE properties in those states. Based on payments made to taxing authorities in Illinois and Iowa, a dollar-

weighted lead of 64.57 days (including bank float) was estimated and used in the calculation of cash working capital. This estimation takes into account the fact that payments are sometimes made before they are collected from AmerenUE's customers (i.e., pre-payment) while other payments are made subsequent to such collection (i.e., post-payment). The Company's study considers both pre- and post-payment periods in order to calculate the net lead effect.

c) Property Taxes: The Company pays real estate and personal property taxes in the jurisdictions of Missouri, Illinois, and Iowa. In the state of Missouri, all current-year property taxes are due on December 31st of the current year. Payments to the state of Illinois on account of AmerenUE related properties are made on varying dates after the fact; one payment is made to the state of Iowa typically around March or April of the year following the tax liability year. Taking this schedule into consideration (and considering both pre- and post-payments), a dollar-weighted expense lead of 184.88 days was estimated. Since payments are made by check, an additional float time was considered bringing the total lead time estimate to 190.48 days.

d) Corporation Franchise Taxes: The state of Missouri levies a Corporation Franchise Tax on companies with in-state assets of $1,000,000 or more. The tax is due on April 15th of the current fiscal year. Based on this information and considering the effects of pre- and post-payments, a lag of 71.86 days was used in the calculation of cash working capital associated with corporation Franchise Taxes. Since the payment is made by check, this estimate of lag includes bank float time.

e) Missouri Sales and Use Taxes: Missouri Sales Tax is payable to the Missouri Department of Revenue and is calculated as a percent of billings less a 2 percent timely payment allowance. Based on actual payments of the sales tax (including pre- and post-payments), a net dollar-weighted lead of 6.0 days was calculated. Missouri Use Tax is payable to the Missouri Department of Revenue for purchases made by the Company from out-of-state (and is thus known as a compensating tax). This tax is paid quarterly. Based on actual payments made, a dollar weighted lead of 70.67 days was calculated. Both the sales and the use tax were then dollar-weighted to arrive at a combined lead of 7.14 days. Since payments are made by check, an additional float time was considered bringing the total estimate of lead time 12.74 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 between the 25th and the 27th of the month in which the taxes are due. To be conservative, this analysis assumed that all payments are made on the 27th of the month in which taxes are due). Based on the dates on which taxes were due and payments were made, a net dollar-weighted lead of 45.69 days was calculated. Since the Company has transitioned to an electronic payment methodology for the majority of its gross receipts tax payments, no additional float time was considered.

g) Saint Louis Taxes: The Company pays corporate earnings and payroll expense taxes to the city of Saint Louis. The corporate earnings tax is typically paid in April of the year following the tax liability year, while the payroll expense tax is

typically paid after the end of each quarter. Thus, the expense lead on corporate earnings tax was estimated to be 241.14 days (including bank float) and the payroll expense tax, weighted by amounts paid and including bank float since payments are made by check, was estimated to be 63.91 days.

Q. Why does the Revenue Lag for Sales and Use 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. The Company does not per-se provide any service to its customers associated with these taxes. Thus, the revenue lag used in calculating the net lag for these expense items excludes the lag associated with meter reading and billing.

Q. What other expense related items did the Company consider in its analysis?

A. The following additional expenses were considered in the Company's lead-lag study:

a) Federal Income Tax expenses;

b) State Income Tax expenses; and

c) Interest expenses associated with the Company's long term debt.

Q. How were Federal Income Taxes considered in the Company's study?

A. The lead time associated with federal income tax payments was based on the statutory requirements of the Internal Revenue Code that requires estimated tax payments of 25 percent of total income taxes due on April 15, June 15, September 15, and December 15 of the current year. Taking this schedule into consideration and using a

mid-point methodology that considers both pre-payments and post-payments, a lead time of 34.13 days was estimated on account of Federal Income Tax payments made by the Company. This estimate does not include bank float since payments are made electronically.

Q. How did you consider State Income Taxes in your study?

A. Missouri requires estimated State Income tax payments of 22.5 percent 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 considers the effects of both pre- and post-payment periods, a lead time of 47.38 days was estimated on account of State Income Taxes. Since payments are made electronically, no additional float time was considered in this study.

Q. Provide a description of how lead times associated with the Company's Interest Expense were considered in the Company's 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 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. Using the mid-point approach and accounting for both pre- and post-payment periods relative to the mid-point, a dollar-weighted lead estimate of 36.17 days was estimated for interest expenses. Since interest payments are made electronically, no additional lead time is required to be considered 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 1.672 percent for federal income tax, (1.958) percent for state income tax, and 1.112 percent for Interest on Long Term Debt.

V. DETERMINATION OF AMERENUE's CASH WORKING CAPITAL REQUIREMENT

Q. Have you summarized the results of the Company's cash working capital analysis?

A. The results of the Company's cash working capital study are presented in Schedule 5, which is sponsored by Company witness Weiss. I am sponsoring the revenue lag, expense lead, net lag and CWC factors set forth on the schedule. As the schedule shows, the appropriate level of cash working capital required by AmerenUE is $21,446,527.

Q. Have you prepared a schedule contrasting the results of AmerenUE's CWC study versus that proposed by Staff witness Teel?

A. Yes. **Schedule 1** summarizes the results of both AmerenUE's CWC study and the analysis prepared by Staff witness Teel.

Q. Can you summarize the differences between AmerenUE's calculation of cash working capital requirement and Staff's calculation?

A. Such a side-by-side analysis is difficult given the differences in the level of detail employed for the two studies. Staff's largest expense category is entitled "Cash Vouchers," which represents approximately 54 percent of Staff's total operations and

maintenance expense figure. AmerenUE's study differentiated the types of expenditures contained within the "Cash Voucher" classification due to the unique characteristics related to each specific expense category. For example, the timing of AmerenUE's pension and benefits payments is not the same as the payments for interchange sales. The Staff's analysis, however, treats these expenses the same.

Further, it has been difficult to replicate or verify Staff's test year expenses employed in its study. The difference in expense levels can significantly impact the differences between AmerenUE's and Staff's cash working capital analyses. For example, the test year expenses related to Coal are approximately $8.3 million less than those that AmerenUE included in its analysis. AmerenUE's coal-related expenses are based upon the actual expenses incurred for the twelve months ended September 30, 2001. The combination of different expense levels and lead/lag days associated with coal expenses results in a variance of approximately $3.0 million in the cash working capital requirement.

VI. CONCLUSIONS

Q. Based on your review of both the Company's and Staff witness Teel's cash working capital analyses, what do you recommend to the Commission and why?

A. I recommend that the Commission adopt the results of the Company's analysis in its entirety because:

a) It excludes non-cash items, such as the vacation accrual, from the analysis of cash working capital requirements;

b) It utilizes an accurate and appropriate billing lag which represents the Company actual billing schedule;

c) It reflects more recent results. By using data from the twelve months ended September 30, 2001, the twelve months ended June 30, 2001 or the calendar year ended December 31, 2000, the Company's analysis is more recent compared with the various historical time periods used by Staff witness Teel;

d) It is more internally consistent. Staff witness Teel's study is based on a mix of a different number of time periods and is thus likely to misrepresent the Company's cash working capital requirement; the Company's analysis, in contrast, is based on current, contemporaneous data;

e) It is unbiased. Additional float time that affect both receivables and payables have been considered in the Company's analysis; and

f) It is more comprehensive than the analysis presented by Staff witness Teel. The Company's analysis is more comprehensive and provides the Commission with a more in-depth view of the Company's operations and therefore its cash working capital requirements on a going forward basis.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

The Staff of the Missouri Public Service Commission, Complainant,	)	
vs.	)	Case No. EC-2002-1
Union Electric Company, d/b/a AmerenUE, Respondent.	)	

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 and Water Practice of Navigant Consulting, Inc.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 38 pages, ~~and~~ Appendix A, and Schedule 1, 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 3rd day of May, 2002.

Debby Anzalone
Notary Public

My commission expires:

DEBBY ANZALONE
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: April 18, 2006

EXECUTIVE SUMMARY

Michael Adams

Director in the Energy and Water Practice of Navigant Consulting, Inc., a global management consulting firm that has over 1,200 professionals located in 41 offices worldwide

* * * * * * * * * *

Cash working capital is the amount of funds required to finance the day-to-day operations of the Company. The Staff's cash working capital calculation by witness Leasha Teel suffers from a number of flaws that render it inaccurate and unreliable, resulting in an inappropriate net reduction in rate base of $22.2 million. The many flaws include the following:

- The Staff study improperly adjusts cash working capital for accrued vacation, although vacation is only a cash factor in the infrequent occasion that an employee leaves the Company with unused vacation time. As the Staff's own White Paper recognizes, non-cash items are never included in cash working capital analysis. This error alone inappropriately reduces the Company's cash working capital requirement by $13.4 million;
- The Staff arbitrarily decreases the lag between the last day of a service period and the day that bills are mailed, to reflect a presumed and unsubstantiated impact associated with the implementation of an automated meter reading system;
- The Staff study is internally inconsistent, based on data from a number of different time periods, some as many as five years old;

- The Staff study is imprecise because it aggregates all of the Company's cash vouchers into one average calculation, despite the fact that the major categories of pensions and benefits and purchased power have their own particular lead times;
- The Staff study ignores the leads and lags associated with electricity transactions in wholesale markets;
- The Staff study omits the "Bank Float" lag—the time from when a payment is received until it clears and the funds received can actually be used by the recipient-- in calculating the leads and lags of the Company; and
- The Staff study improperly treated a number of tax payments the Company makes relating to its Missouri operations.

The Company has performed a lead-lag study by analyzing its cash transactions and invoices for the twelve months ended September 30, 2001. The Company's study 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").

The Public Service Commission should adopt the results of AmerenUE's cash working capital analysis, which would properly add $21.4 million to the Company's rate base. This analysis is based on the most current data available, considers every aspect of leads and lags, is comprehensive in its scope, and achieves added precision by breaking the Company's cash vouchers into identifiable major categories. The difference between the Staff's flawed analysis and the Company's proper analysis is a difference of approximately $3 million in revenue requirement.

Ameren UE
Case EC-2002-1

Comparison of Cash Working Capital Estimates

Line	Account Description	Per Staff Complaint Dated March, 2002 Test Year Expenses	Revenue Lag Days	Expense Lag Days	Net Lag Days	CWC Factor	CWC Requirement	Per AmerenUE Dated May, 2002 Test Year Expenses	Revenue Lag Days	Expense Lag Days	Net Lag Days	CWC Factor	CWC Requirement
(A)		(B)	(C)	(D)	(E)	(F)	(G)						
	Operations and Maintenance Expenses												
1	Pensions and Benefits							$ 65,369,702	40.23	41.06	(0.85)	(0.00233)	$ (152,246)
2	Purchased Power							283,445,742	40.23	45.02	(4.79)	(0.01312)	(3,719,658)
3	Interchange Sales							(212,301,136)	40.23	50.41	(10.18)	(0.02789)	5,921,079
4	Cash Vouchers	$ 620,430,459	38.87	27.00	11.87	0.032521	$ 20,176,738	-	-	-	-	-	-
5	Base Payroll	171,064,536	38.87	10.61	28.26	0.077425	13,244,613	167,919,617	40.23	11.13	29.10	0.07973	13,387,559
6	Vacation Payroll	15,029,233	38.87	365.00	(326.13)	(0.893507)	(13,428,723)	-	-	-	-	-	-
7	Federal Withholding Taxes	47,011,376	38.87	12.97	25.90	0.070959	3,335,876	55,649,242	40.23	12.82	27.41	0.07510	4,179,035
8	State Withholding Taxes	11,267,680	38.87	16.42	22.45	0.061507	693,052	13,187,310	40.23	17.54	22.69	0.06216	819,776
9	Employee FICA Taxes	15,529,804	38.87	12.97	25.90	0.070959	1,101,978	16,330,354	40.23	12.82	27.41	0.07510	1,226,344
10	Fuel - Nuclear	28,256,179	38.87	34.55	4.32	0.011836	334,429	35,303,961	40.23	29.18	11.05	0.03027	1,068,792
11	Fuel - Coal	220,436,932	38.87	22.41	16.46	0.045096	9,940,800	228,722,806	40.23	19.58	20.65	0.05658	12,939,993
12	Fuel - Oil	408,568	38.87	14.40	24.47	0.067041	27,391	5,665,942	40.23	19.13	21.10	0.05781	327,537
13	Fuel - Gas	14,036,178	38.87	12.61	26.26	0.071945	1,009,836	4,966,416	40.23	10.53	29.70	0.08137	404,117
14	Uncollectible Expense	9,009,371	38.87	38.87	-	-	-	3,752,033	40.23	40.23	-	-	-
15	Other O&M Expenses							379,354,910	40.23	19.95	20.28	0.05558	21,077,718
16	Total Operations and Maintenance Expenses	1,152,480,516					36,435,990	1,047,366,899					57,480,046
	Taxes												
17	Employer FICA Taxes	15,529,804	38.87	12.97	25.90	0.070959	1,101,978	16,330,354	40.23	12.82	27.41	0.07510	1,226,344
18	Federal Unemployment Taxes	188,886	38.87	87.40	(48.53)	(0.132959)	(25,114)	181,732	40.23	65.22	(24.99)	(0.06847)	(12,442)
19	State Unemployment Taxes	-	38.87	-	38.87	-	-	8,894	40.23	64.57	(24.34)	(0.06669)	(593)
20	Corporation Franchise Taxes	569,619	38.87	(77.50)	116.37	0.318822	181,607	903,703	40.23	(71.86)	112.09	0.30710	277,524
21	Property Taxes	82,671,883	38.87	186.52	(147.65)	(0.404521)	(33,442,475)	78,298,388	40.23	190.52	(150.29)	(0.41175)	(32,239,596)
22	Sales and Use Taxes	45,648,302	22.22	6.80	15.42	0.042247	1,928,484	46,593,238	22.08	12.78	9.30	0.02548	1,187,149
23	Gross Receipts Taxes	93,000,759	22.22	49.36	(27.14)	(0.074356)	(6,915,180)	96,142,676	22.08	45.69	(23.61)	(0.06469)	(6,218,989)
24	St Louis Corporate Earnings Tax							447,965	40.23	241.14	(200.91)	(0.55044)	(246,577)
25	St Louis Payroll Expense Tax	95,928	38.87	76.38	(37.51)	(0.102753)	(9,857)	97,707	40.23	63.91	(23.68)	(0.06488)	(6,339)
26	Total Taxes	$ 237,609,253					(37,180,557)	$ 239,004,657					(36,033,519)
27	Total Cash Working Capital Requirement						$ (744,567)						$ 21,446,527
28	Federal Income Tax	N/A	38.87	37.00	1.87	0.005123			40.23	34.13	6.10	0.01672	
29	State Income Tax	N/A	38.87	62.15	(23.28)	(0.063781)			40.23	47.38	(7.15)	(0.01958)	
30	Interest Expense	N/A	38.87	89.02	(50.15)	(0.137397)			40.23	36.17	4.06	0.01112	

Schedule 1