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Study  
Witness: Joseph S. Weiss  
Sponsoring Party: Union Electric Company  
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File No.: ER-2014-0258  
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**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2014-0258**

**DIRECT TESTIMONY**

**OF**

**JOSEPH S. WEISS**

**On Behalf**

**Of**

**UNION ELECTRIC COMPANY**

**d/b/a AMEREN MISSOURI**

**St. Louis, Missouri  
July 2014**

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1 **DIRECT TESTIMONY**

2 **OF**

3 **JOSEPH S. WEISS**

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5 **I. INTRODUCTION AND WITNESS QUALIFICATIONS**

6 **Q. Please state your name and business address.**

7 **A.** My name is Joseph S. Weiss. My business address is 293 Boston Post Road West, Suite 500,  
8 Marlborough, Massachusetts 01752.

9 **Q. By whom are you employed?**

10 **A.** I am a Project Manager with Concentric Energy Advisors, Inc. (“Concentric”).

11 **Q. Please describe Concentric.**

12 **A.** Concentric is a management consulting and economic advisory firm focused on the North  
13 American energy and water industries. Concentric specializes in regulatory and litigation  
14 support, transaction-related financial advisory services, energy market strategies, market  
15 assessments, energy commodity contracting and procurement, economic feasibility studies,  
16 and capital market analyses and negotiations.

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

18 **A.** As a consultant, my responsibilities include assisting clients in identifying and addressing  
19 business issues. My primary areas of focus have been regulatory, financial and accounting-  
20 related issues.  
21  
22  
23

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

2 A. I have an M.B.A. from Southern Illinois University Edwardsville and received a B.S. in  
3 Business Administration (magna cum laude) with a major in Accounting and Finance from  
4 Saint Louis University.

5 **Q. Please describe your qualifications.**

6 A. I have approximately eight years of experience consulting to the energy industry. I have  
7 worked on numerous projects involving revenue requirements (including cash working  
8 capital), rate of return, and cost of service for gas and electric utilities. Prior to joining  
9 Concentric Energy Advisors in 2007, I was a consultant with Navigant Consulting, Inc., in the  
10 firm's regulatory practice, and I also worked for Ameren Services as an intern in the tax  
11 department.

12 **II. PURPOSE AND SCOPE**

13 **Q. What is the purpose of your direct testimony?**

14 A. My testimony discusses a lead-lag study prepared for Union Electric Company d/b/a Ameren  
15 Missouri's ("Ameren Missouri" or "Company") electric business by Concentric that I used to  
16 develop cash working capital factors ("CWC factors"). The CWC factors are used by Ameren  
17 Missouri witness Laura M. Moore to calculate the Company's cash working capital  
18 requirements.

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

2 A. Cash working capital (“CWC”) is the amount of funds required to finance the day-to-day  
3 operations of the Company.

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

5 A. Yes. I am sponsoring Schedule JSW-1, which I will discuss later in my testimony.

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

7 **Q. What is a lead-lag study?**

8 A. A lead-lag study is an analysis of revenue lags and expense leads. Cash working capital  
9 requirements are generally determined by lead-lag studies that are used to analyze the lag  
10 time between the date customers receive service and the date that customers' payments are  
11 available to the company. This lag is offset by a lead time during which the company  
12 receives goods and services, but pays for them at a later date. The "lead" and "lag"  
13 are both measured in days. The dollar-weighted lead and lag days are then divided by  
14 365 to determine a daily CWC factor. This CWC factor is then multiplied by the  
15 annual test year cash expenses to determine the amount of cash working capital required for  
16 operations. The resulting amount of cash working capital is then included as part of the  
17 company's rate base.

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

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

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

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

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

9 A. An expense lead refers to the elapsed time from when a good or service is provided to the  
10 company to the point in time when the company pays for the good or service and the funds  
11 are no longer available to the company.

12 **Q. What sources of information are employed to determine the leads and lags in a**  
13 **cash working capital analysis for Ameren Missouri?**

14 A. Information from Ameren Service Company's Accounts Payable, Customer Service,  
15 Human Resources, Payroll, and Tax systems are utilized. The information derived from  
16 these sources, together with analyses of specific invoices, are used to determine the  
17 appropriate number of lead-lag days for Ameren Missouri's electric business.

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

1 A. The cash working capital requirements should be included as part of Ameren  
2 Missouri's rate base for ratemaking purposes.

3 **Q. Please describe the lead-lag study that you performed for this case.**

4 A. As reflected in Schedule JSW-1, I incorporated into my study the revenue lags and  
5 expense leads used to develop the revenue requirement approved in the *Report and Order*  
6 in File No. ER-2012-0166, with the exception of the collections lag, which has been  
7 updated to reflect current customer payment history. The test year operating expenses to  
8 which the leads and lags were applied in this case are described in the direct testimony of  
9 Ms. Moore.

10 **Q. Why were the expense leads and revenue lags, other than the collections lag, not**  
11 **updated?**

12 A. From discussions with Company personnel, it was determined that there were no  
13 significant changes in Ameren Missouri's operations affecting those expense lead and  
14 revenue lag calculations since the lead-lag study used in File No. ER-2012-0166.  
15 Further, many of the expense leads are based upon due dates that are statutorily set  
16 (e.g., dates for tax payment filings), so the expense leads would not be expected to  
17 change materially.

18 **Q. Why was the collections lag updated?**

19 A. It has been our experience that the collections lag fluctuates based on various external  
20 factors that impact customer payment patterns. In order to more accurately reflect

1 current customer payment history, the collections lag calculation was updated with data  
2 from the twelve months ended December 31, 2013.

3 **IV. COLLECTIONS LAG**

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

5 A. The collections lag refers to the average amount of time from the date when the customer  
6 received a bill to the date that the Company received payment from its customers. Based  
7 on weighted average data from the monthly CURCT617 Accounts Receivables  
8 Breakdown Report from the Company's Customer Service System and by considering  
9 accounts receivables balances by class of customer by days aged, the average collection  
10 lag was determined to be 25.79 days.

11 **Q. Please describe the report that was used to determine the collections lag.**

12 A. The CURCT617 Accounts Receivable Breakdown Report was designed to meet  
13 business needs specific to tracking accounts receivables in the general ledger. The  
14 report reflects the age of the accounts receivable balance for current or within 30 days  
15 outstanding, 30-59 days outstanding, 60-89 days outstanding, 90-119 days outstanding,  
16 and 120 or more days outstanding. The report also captures data related to specific  
17 general ledger accounts including receivables that are subject to payment agreements,  
18 budget billing deferred amounts, and credits or overpayments. The report is used by  
19 different Ameren Missouri departments for analyses such as reconciliation by auditors,  
20 control balancing, and predicting future uncollectibles. The data in the report most



1 accurately reflects the data in Ameren Missouri's general ledger system since the source  
2 of the data for the report and the general ledger accounts is from the Customer Service  
3 System ("CSS"). This report has been used by the Company to manage receivables  
4 since May 2010.

5 **Q. How were uncollectible revenues treated in your analyses?**

6 A. An allowance for uncollectible revenues was removed from the accounts receivables  
7 balances when calculating the collections lag. Based upon information provided by the  
8 Company, a provision of 0.39 percent was excluded from the aging analysis for each  
9 bucket except the 90-120 days and 120+ days buckets. A provision of 10 percent was  
10 excluded from the 90-120 days and 120+ days buckets.

11 **Q. Please explain how the provision for uncollectible revenues was determined.**

12 A. The level of uncollectibles was forecasted by the Company to establish a reserve for bad debt.  
13 A 0.39 percent provision for uncollectibles was applied to the 0-30 days, 30-60 days, and 60-  
14 90 days buckets. A 10 percent provision for uncollectibles was applied to the 90-120 days and  
15 120+ days buckets. The uncollectibles percentages were developed by the General  
16 Accounting and Credit and Collections functions and reflect customers' current payment  
17 habits. The Company uses historical data to develop the bad debt estimate, and also takes into  
18 account current economic and load forecasts to adjust the estimates accordingly. The  
19 weighted average bad debt percentage for the test year, applying 0.39 percent to each of the  
20 aged buckets other than the 90-120 days and 120+ days buckets and 10 percent to the 90-120  
21 days and 120+ days buckets, was 1.13 percent. This amount reflects the bad debt percentage

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1 removed from the accounts receivables balances in the Company's collections lag calculation.  
2 The actual bad debt percentage for Ameren Missouri during 2013, dividing FERC Account  
3 904 by total electric operating revenues, was 0.48 percent.

4 **Q. Is this the same method employed in File No. ER-2012-0166?**

5 A. Yes. The calculation of the collection lag utilizes the same method as the calculation  
6 performed in Case No. ER-2012-0166 updated with data from the twelve months ending  
7 December 31, 2013.

8 **Q. Was the Company's collections lag approved in File No. ER-2012-0166?**

9 A. Yes. The Commission approved the collection lag proposed by Ameren Missouri<sup>1</sup>.

10 **Q. Have you attempted to validate the report?**

11 A. Yes. I requested information from the Company pertaining to monthly data regarding:  
12 1) the date customers were billed; 2) the due date on the bill; and 3) the date the bill was  
13 paid in full. The Company was able to provide such data for the entire calendar year.  
14 Employing this data, the average monthly collection lag was calculated to be 28.85 days.  
15 The average monthly collection lag was 26.68 days when outstanding balances beyond  
16 120 days were treated as if they had been outstanding for no more than 120 days.

17 **Q. Based on the analysis, what percentage of customers pay their bills late?**

18 A. Based upon the monthly Company data extracted from the Customer Service System,  
19 approximately 65 percent of Ameren Missouri's customers pay their monthly utility bill

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<sup>1</sup> Report and Order, File No. ER-2012-0166, pp. 14-19.

1 in full within 21 days of the issuance of the bill. Therefore, approximately 35 percent of  
2 Ameren Missouri's customers pay their monthly bills in full more than 21 days after the  
3 bill date. Of the roughly 35 percent of Ameren Missouri's customers that pay their  
4 monthly bill late, approximately 3 percent pay their utility bill in full more than 120 days  
5 beyond the bill date.

6 **Q. Are you proposing to use this alternative data to determine the Company's**  
7 **collection lag?**

8 A. No. I believe that the aging of Ameren Missouri's accounts receivables is the preferable  
9 approach by which to calculate the Company's collection lag. The alternative analysis  
10 was performed for the sole purpose of validating the Company's collection lag, as  
11 calculated from the aged accounts receivable.

12 **Q. Have you compared the Company's collection lag to that of other companies in**  
13 **Missouri?**

14 A. Yes. Collection lags ranged from 8.93 days (for a company that sells its receivables) to  
15 33.4 days.

16 **Q. Please summarize the calculation of base revenue lag days.**

17 A. The calculation of the overall base revenue lag, by lag component, is summarized in the  
18 following table.

<b>Base Revenue Lag Component</b>	<b>Lag Days</b>
Meter Reading	15.21
Billing	0.99
Collections	25.79
Total Revenue Lag	41.99

1

2 **Q. Was the base revenue lag adjusted for off-system sales?**

3 A. Yes. Revenues from off-system sales were collected, on average, within 25.83 days.  
4 Therefore, a weighted average of the revenue lag for tariffed revenues and off-system  
5 sales was calculated. The resulting weighted revenue lag was determined to be 40.51  
6 days.

7 **Q. Please describe Schedule JSW-1.**

8 A. Schedule JSW-1 summarizes the leads and lags discussed within my direct testimony.  
9 These leads and lags are used by Ms. Moore to calculate the Company's cash working  
10 capital requirements.

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

12 A. Yes, it does.

Ameren Missouri  
**Cash Working Capital Requirement**

Line No.	Description (A)	Revenue Lag (B)	Expense Lead (C)	Net Lag (D)	CWC Factor (E)
1	Pensions & Benefits	40.51	(29.21)	11.30	0.0310
2	Payroll and Withholdings	40.51	(12.12)	28.39	0.0778
3	Employer FICA Contribution	40.51	(12.73)	27.78	0.0761
4	Other Operations and Maintenance Expenses	40.51	(36.41)	4.10	0.0112
5	Federal Unemployment Taxes	40.51	(76.38)	(35.87)	(0.0983)
6	State Unemployment Taxes	40.51	(76.38)	(35.87)	(0.0983)
7	Corporation Franchise Taxes	40.51	77.50	118.01	0.3233
8	Property/Real Estate Taxes	40.51	(182.50)	(141.99)	(0.3890)
9	Sales Tax	40.51	(38.79)	1.72	0.0047
10	Use Tax	40.51	(76.38)	(35.87)	(0.0983)
11	Gross Receipts Taxes	26.78	(27.54)	(0.77)	(0.0021)
12	Federal Income Tax	40.51	(37.88)	2.63	0.0072
13	State Income Tax	40.51	(37.88)	2.63	0.0072
14	St Louis Corporate Earnings Tax	40.51	(273.50)	(232.99)	(0.6383)
15	St Louis Payroll Expense Tax	40.51	(76.38)	(35.87)	(0.0983)
16	Fuel - Nuclear	40.51	(15.21)	25.30	0.0693
17	Fuel - Coal	40.51	(17.14)	23.37	0.0640
18	Fuel - Oil	40.51	(12.70)	27.81	0.0762
19	Fuel - Gas	40.51	(40.36)	0.15	0.0004
20	Interest Expense	40.51	(90.76)	(50.25)	(0.1377)
21	Uncollectible Expense	40.51	(40.51)	-	-
22	Purchased Power	40.51	(25.83)	14.68	0.0402
23	Decommissioning Fees	40.51	(70.63)	(30.12)	(0.0825)
24	Incentive Compensation	40.51	(253.77)	(213.26)	(0.5843)

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

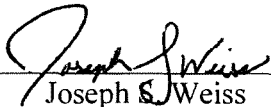
In the Matter of Union Electric Company d/b/a )  
Ameren Missouri's Tariffs to Increase Its Revenues ) Case No. ER-2014-0258  
for Electric Service. )

AFFIDAVIT OF JOSEPH S. WEISS

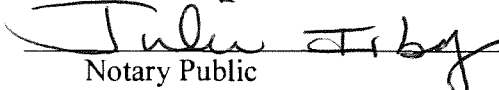
STATE OF Missouri )  
CITY ) ss  
COUNTY OF St. Louis )

Joseph S. Weiss, being first duly sworn on his oath, states:

1. My name is Joseph S. Weiss and my office is located in Marlborough, Massachusetts and I am a Project Manager with Concentric Energy Advisors, Inc.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 10 pages and Schedule(s) JSW-1, all of 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.

  
\_\_\_\_\_  
Joseph S. Weiss

Subscribed and sworn to before me this 3<sup>rd</sup> day of July, 2014.

  
\_\_\_\_\_  
Notary Public

My commission expires:

