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Witness:	Brenda I. Weber
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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. GR-2019-0077

DIRECT TESTIMONY

OF

BRENDA I. WEBER

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AMEREN MISSOURI

St. Louis, Missouri
December 2018

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DIRECT TESTIMONY

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BRENDA I. WEBER

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Brenda I. Weber. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, MO 63103.

Q. By whom are you employed and in what capacity?

A. I am employed by Ameren Services Company, a wholly-owned subsidiary of Ameren Corporation ("Ameren"), as Assistant Treasurer and Director Corporate Finance. Ameren Services Company provides various corporate support services to Ameren and its subsidiaries, including Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), such as accounting, legal, financial, and treasury services.

Q. What are your current job duties and responsibilities?

A. As Assistant Treasurer and Director Corporate Finance, I am responsible for managing Ameren's and its subsidiaries' short-term and long-term financing activities, including those of Ameren Missouri. These activities include debt and equity issuance, credit facility arrangement, monitoring the companies' liquidity positions and key credit metrics, monitoring compliance with debt agreements, managing relationships with credit rating agencies and banks, and monitoring capital markets for key developments, emerging risks, and opportunities, among other corporate finance-related activities.

Q. Please provide your educational background and relevant work experience.

A. See my Statement of Qualifications, attached as Schedule BIW-D1 to this testimony.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to: (1) recommend a reasonable capital structure for Ameren Missouri for ratemaking purposes and an appropriate overall fair rate of return for the Company's gas utility business; and (2) discuss the lead-lag study prepared for Ameren Missouri's gas business.

The capital structure that I recommend is based on Ameren Missouri's forecasted debt, preferred stock, and common stock balances as of May 31, 2019. The actual balances as of that date will be provided with the true-up data. My direct testimony reflects, for informational purposes, Ameren Missouri's actual capital structure as of June 30, 2018, the end of the proposed test year. In recommending a fair overall rate of return, I consider Ameren Missouri's embedded cost of long-term debt, its embedded cost of preferred stock, and the fair return on equity recommended by Ameren Missouri witness Robert B. Hevert in this case.

My testimony also discusses a lead-lag study for Ameren Missouri's gas business that was prepared under my direction and that I used to develop cash working capital factors ("CWC factors"). The CWC factors are used by Ameren Missouri witness Laura Moore to calculate the Company's cash working capital requirements.

Q. Are you sponsoring any schedules in connection with your direct testimony?

A. Yes, I am sponsoring and have attached to my testimony the following schedules, which have been prepared as of or for the twelve months ending May 31, 2019, as appropriate:

- Schedule BIW-D2 – Capital Structure/Weighted Average Cost of Capital
- Schedule BIW-D3 – Embedded Cost of Long-Term Debt
- Schedule BIW-D4 – Cost of Short-Term Debt
- Schedule BIW-D5 – Embedded Cost of Preferred Stock
- Schedule BIW-D6 – Cash Working Capital Summary

III. RATE OF RETURN AND COST OF CAPITAL CONSIDERATIONS

Q. What is the relationship between allowed rate of return and cost of capital in the context of utility ratemaking?

A. Under a traditional regulatory model, the interests of customers and a utility's shareholders may be considered "balanced" when the Commission authorizes a rate of return on rate base equal to the utility's cost of capital. If the authorized rate of return is less than the utility's overall cost of capital, the financial strength and stability of the utility could degrade, making it difficult for the utility to raise necessary capital on a timely basis, at a reasonable cost, and under reasonable terms. Ultimately, the utility's inability to raise sufficient capital would impair service quality, or the increased cost of capital incurred by a financially-weakened utility would result in increased rates. Customer

interests are best served when the Commission-authorized rate of return is set equal to the utility's overall cost of capital.

Q. Please define weighted average cost of capital.

A. Weighted average cost of capital equals the sum of the costs of the components of an entity's capital structure weighted by the relative contribution of each capital source to the entity's total capitalization.

Q. How did you calculate the weighted average cost of capital for Ameren Missouri?

A. As reflected in Schedule BIW-D2, I calculated Ameren Missouri's weighted average cost of capital by: (1) multiplying the relative weighting or proportion of each component of Ameren Missouri's capital structure by the cost of that component; and then, (2) summing the weighted cost of each capital component.

Q. What is the primary standard for determining a fair rate of return?

A. According to the landmark *Bluefield* and *Hope* U.S. Supreme Court decisions,[1] a utility's rates must be set at a level that allows the utility to generate revenues sufficient to: (1) maintain the financial integrity of its existing invested capital, (2) maintain its creditworthiness, and (3) attract sufficient capital on competitive terms to continue to provide a source of funds for continued investment and enable the company to meet the needs of its customers. When a utility is allowed to earn its cost of capital, it is generally afforded a reasonable opportunity to accomplish these objectives.

[1] *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 391 (1944).

Q. From a finance perspective, why is it important that the Commission allow Ameren Missouri the opportunity to earn its cost of capital?

A. By earning its cost of capital, Ameren Missouri will generate strong cash flows and maintain the financial strength and stability necessary to, among other things, attract investment to finance the business and provide reliable, high quality service to its customers at a reasonable cost. Strong cash flows and overall financial health allow the Company to offer an attractive and competitive, risk-adjusted return to equity investors and also maintain strong credit metrics and investment grade credit ratings that, as discussed further below, afford the Company ongoing access to debt capital at a reasonable cost and under reasonable terms and conditions.

IV. CAPITAL STRUCTURE AND CREDIT RATINGS, GENERALLY

Q. What is a utility capital structure?

A. Capital structure refers to the mix of debt and equity capital that a utility, such as Ameren Missouri, uses to finance its assets. Because they must support long-lived assets, utility capital structures tend to include long-term securities, generally a combination of common equity and long-term debt. However, there are other forms of capital, such as preferred equity (which has both equity-like and debt-like elements), that also may be a component of a utility's capital structure.

Q. How do you believe the reasonableness of a public utility's capital structure should be evaluated?

A. In evaluating the reasonableness of a public utility's capital structure, one should determine whether the capital structure is consistent with the financial strength

necessary for the utility to access the capital markets under reasonable terms under most economic conditions, and, if so, whether the cost of capital resulting from such a structure is reasonable. While debt, relative to equity, is generally a less expensive form of capital due in part to the tax deductibility of interest expense, incremental debt can increase a firm's probability of default and the related costs of financial distress. Beyond a certain point, dependence on debt as a source of capital increases the risk associated with a utility's cash flow, which correspondingly increases a utility's overall cost of capital.

Q. Does Ameren Missouri seek to maintain a certain capital structure?

A. Yes. Ameren Missouri's capital structure is composed of debt, preferred stock, and common equity. Ameren Missouri specifically and continuously maintains the balance of debt and equity in its capital structure to minimize its overall cost of capital and, at the same time, maintain financial strength and stability. Maintaining financial strength and stability includes maintaining strong credit metrics and secure investment grade credit ratings that will allow the Company to attract new capital at a reasonable cost and on reasonable terms, and ensure that Ameren Missouri has access to the capital markets under varying economic conditions.

Q. Why is it necessary for Ameren Missouri to attract new capital?

A. As a public utility, Ameren Missouri is required to continuously provide safe, adequate, and reliable service to its customers. Ameren Missouri needs substantial capital to do this. It is essential that Ameren Missouri be able to attract the capital necessary to meet these significant service and investment commitments.

Q. Why is it necessary that Ameren Missouri be able to access the capital markets during all economic conditions?

A. Ameren Missouri's service commitments to its customers do not cease in an economic downturn. Ameren Missouri must be able to attract the capital necessary to meet those commitments under varying economic conditions, including periods of market distress, when access to the capital markets may be severely limited for weaker-rated issuers.

Q. How does a balanced capital structure help ensure Ameren Missouri access to the capital it needs at a reasonable cost and during market fluctuations?

A. Capital structure is one metric that credit rating agencies evaluate when assessing an issuer's credit profile and assigning a credit rating. A balanced capital structure signals a certain degree of financial health and mitigates the risk of financial distress. Capital structure also influences other credit metrics on which credit ratings are based. Credit ratings, in turn, are used by investors to evaluate the creditworthiness of an issuer and make investment decisions.

Q. What is a credit rating?

A. A credit rating is an evaluation by a credit rating agency of a company's ability to meet its financial obligations in a timely manner. It reflects the opinion of the rating agency of the overall creditworthiness of the company based on the company's relevant business and financial risks. A credit rating can be specific to a particular security or to a particular securities issuer.

Q. Why do credit ratings matter?

A. Credit ratings have a significant effect on a company's ability to attract debt capital, and, in extreme cases, whether the company can access debt capital at all. Credit ratings also impact the pricing and contractual terms at which a company may issue debt securities. This affects the cost of capital and, in Ameren Missouri's case, the rates customers must pay for utility service. In general, a stronger credit rating typically enables a utility to obtain debt capital at a lower cost, to the benefit of customers.

Q. How are credit ratings determined?

A. The two primary credit rating agencies are Standard and Poor's Ratings Services ("S&P") and Moody's Investor Services ("Moody's"). In assessing a company's ability to meet its financial obligations, S&P and Moody's generally - but each to varying degrees - consider both qualitative factors affecting the company's business risk and quantitative factors affecting its financial risk.

Q. How do a company's credit metrics affect its credit ratings?

A. Credit metrics factor significantly into the credit rating agencies' evaluations of a company's credit profile and the rating agencies' assignment of credit ratings. The credit rating agencies generally deem strong credit metrics necessary to maintain investment grade credit ratings.

Q. What is an "investment grade" credit rating?

A. An investment grade credit rating is a rating of BBB- or stronger from S&P or a rating of Baa3 or stronger from Moody's. An investment grade credit rating implies a certain degree of financial strength and stability and reasonable assurance of an issuer's

ability to satisfy its debt obligations. Investment grade credit ratings, therefore, tend to attract capital to a company. For Ameren Missouri, investment grade credit ratings provide reasonable assurance that it will be able to access the capital markets on a timely basis, at a reasonable cost, and under reasonable terms and conditions. Again, for Ameren Missouri, ongoing access to the debt capital markets benefits its customers by supporting reliable service, and lower debt costs achievable with investment grade credit ratings contribute to lower utility rates.

Q. Does Ameren Missouri target investment grade issuer credit ratings when it maintains its capital structure?

A. Yes. As explained, access to sufficient capital is critical to Ameren Missouri's financial health and stability and, in turn, to the service that its customers receive and the rates customers pay for that service. Therefore, in my opinion, Ameren Missouri's issuer credit ratings should be securely investment grade (at least two notches stronger than S&P's and Moody's weakest investment grade issuer credit rating) to continue to support the financial integrity of the utility and ensure its access to necessary capital at a reasonable cost and on reasonable terms in both strong and weak markets.

Q. What are Ameren Missouri's current issuer credit ratings?

A. Currently, Ameren Missouri's issuer credit ratings at Moody's and S&P are Baa1 and BBB+, respectively. Both credit rating agencies report stable outlooks for Ameren Missouri's credit ratings.

Q. Do you consider Ameren Missouri's current issuer credit ratings to be securely investment grade?

A. Yes.

V. AMEREN MISSOURI'S ACTUAL AND FORECASTED CAPITAL STRUCTURE

Q. What was Ameren Missouri's capital structure as of June 30, 2018, the end of the proposed test year in this case?

A. The table below shows Ameren Missouri's actual capital structure as of June 30, 2018:

Table 1

	As of June 30, 2018	
	Balance	%
Long-term debt	$ 3,866,644,691	47.71%
Short-term debt	$ -	0.00%
Preferred stock	$ 81,827,509	1.01%
Common equity	$ 4,156,678,871	51.28%
Total	$ 8,105,151,071	100.00%

Q. What capital structure are you recommending in this case?

A. I recommend that Ameren Missouri's actual capital structure as of the recommended true-up date of May 31, 2019, be used in this case.

Q. How do you expect Ameren Missouri's capital structure to change when the balances are trued-up through May 31, 2019?

A. Based on current projections, I expect Ameren Missouri's capital structure as of the May 31, 2019, true-up date to be as follows in Table 2:

Table 2

	As of June 30, 2018		Projected as of May 31, 2019	
	Balance	%	Balance	%
Long-term debt	$ 3,866,644,691	47.71%	$ 3,789,953,689	47.14%
Short-term debt	$ -	0.00%	$ -	0.00%
Preferred stock	$ 81,827,509	1.01%	$ 81,827,509	1.02%
Common equity	$ 4,156,678,871	51.28%	$ 4,167,770,616	51.84%
Total	$ 8,105,151,071	100.00%	$ 8,039,551,814	100.00%

Note that the equity percentage as of May 31, 2019, is expected to be 51.84%, compared to the equity percentage at June 30, 2018, of 51.28%.

Q. How does the recommended capital structure compare to recent years?

A. Ameren Missouri's proposed capital structure is consistent with recent years as its common equity ratio for ratemaking purposes of 51.84% is within the 51.81% - 51.91% range of such ratios at year-end 2016 and year-end 2017.

Q. What constitutes a healthy capital structure for a regulated utility?

A. Again, a healthy capital structure for a regulated utility is one that results in a reasonable balance between the overall cost of capital and the expected costs of financial distress.

Q. Why do you believe that the capital structure recommended in your testimony is appropriate?

A. The capital structure recommended in my testimony reflects a reasonable balance between cost of capital and financial strength and stability. It allows Ameren Missouri to take advantage of the lower costs of debt financing without elevating the risk

of default and the related costs of financial distress to an unreasonable level that would impair the creditworthiness and financial integrity of the Company.

VI. BALANCE AND EMBEDDED COST OF LONG-TERM DEBT

Q. How was the balance of long-term debt determined?

A. The long-term debt balance of $3,789,953,689 reflected in the proposed Ameren Missouri capital structure represents the projected total carrying value of the Company's long-term debt as of May 31, 2019. As detailed in Schedule BIW-D3, the carrying value of long-term debt was computed using the net proceeds method, which adjusts the face amount of long-term debt to properly account for unamortized discounts and premiums, long-term debt issuance expenses, and any gains or losses incurred in connection with long-term debt redemptions.

Q. Did you make any adjustments to Ameren Missouri's actual long-term debt balance in determining the long-term debt balance proposed in this proceeding?

A. I did not include in the proposed long-term debt balance the Company's obligations under capital leases related to the Chapter 100 financing of its Peno Creek (City of Bowling Green) and Audrain County gas-fired generating facilities. These transactions and related capital leases did not generate any proceeds, nor were they a source of new capital for the Company. This treatment is consistent with that reflected in the Company's previous rate case orders.

Q. How was the embedded cost of long-term debt determined?

A. As reflected in Schedule BIW-D3, the embedded cost of long-term debt of 4.662% was computed by dividing forecasted annualized interest expense as of May 31, 2019, by the forecasted long-term debt carrying value as of such date.

Included in Ameren Missouri's forecasted long-term debt balance as of May 31, 2019, are two series of variable rate environmental improvement bonds with a forecasted total outstanding principal balance as of such date of $207.5 million. The interest rates of the issues are reset by a Dutch auction process every 35 days. The effective interest cost assumed for this indebtedness for purposes of this proceeding is consistent with actual rates for these securities as of June 30, 2018, including related auction broker/dealer fees. These interest rates, as well as all other elements of the embedded cost of long-term debt, will be updated as part of the true-up.

VII. BALANCE OF SHORT-TERM DEBT

Q. How was the balance of short-term debt determined?

A. The balance of short-term debt of $0 reflected in the proposed Ameren Missouri capital structure represents the forecasted average short-term debt balance for the twelve months ending May 31, 2019, net of cash and construction work in progress balances. As reflected in Schedule BIW-D4, the Company expects to have no net short-term borrowings during the period.

VIII. BALANCE AND EMBEDDED COST OF PREFERRED STOCK

Q. How was the balance of preferred stock determined?

A. The preferred stock balance of $81,827,509 reflected in Ameren Missouri's proposed capital structure reflects the expected carrying value of, and the net proceeds received for, Ameren Missouri's projected preferred stock outstanding as of May 31, 2019. The calculation of the preferred stock balance is shown in Schedule BIW-D5.

Q. How was the embedded cost of Ameren Missouri's preferred stock determined?

A. As reflected in Schedule BIW-D5, the embedded cost of preferred stock of 4.180% was computed by dividing forecasted annualized dividends by the net proceeds received for forecasted preferred stock outstanding as of May 31, 2019.

Q. Did you consider expenses incurred in connection with Ameren Missouri's issuance of preferred stock in calculating the embedded cost of this component of the Company's capital structure?

A. Yes. As reflected in Schedule BIW-D5, considered in the embedded cost of preferred stock is not only the cost of dividends but also the cost of preferred stock issuance, including discounts, premiums, expenses, and any losses incurred in connection with redeeming prior preferred stock series. Unlike similar costs incurred in connection with the issuance and redemption of long-term debt, these expenses are not amortized over the life of the security due to the perpetual nature of preferred stock. Nonetheless, it is important and appropriate to consider these costs in order to accurately quantify the true

economic cost of Ameren Missouri's preferred stock and establish a fair overall rate of return for the Company.

IX. BALANCE AND COST OF COMMON EQUITY

Q. How was the balance of Ameren Missouri's common equity determined?

A. The common equity balance of $4,167,770,616 reflected in Ameren Missouri's proposed capital structure reflects Ameren Missouri's forecasted book value of common equity as of May 31, 2019. Common equity is generally reflected net of accumulated other comprehensive income ("AOCI"), but AOCI is projected to be zero as of May 31, 2019.

Q. How was the cost of common equity determined?

A. In his testimony in this case, Mr. Hevert states that the cost of common equity capital for Ameren Missouri's integrated gas operations is currently within the range of 10% to 10.6% and recommends that the Commission allow Ameren Missouri the opportunity to earn a return on common equity of 10.3%. As a consequence, in forecasting Ameren Missouri's overall weighted average cost of capital for its gas business, I have assumed a cost of common equity of 10.3%, and Ameren Missouri requests that the Commission approve a return on common equity of 10.3% in this case.

X. FAIR RATE OF RETURN

Q. What do you propose is a fair overall rate of return for Ameren Missouri in this case?

A. I believe a return of 7.581%, which is equivalent to Ameren Missouri's forecasted weighted average cost of capital as of May 31, 2019, is fair and reasonable. The calculation of the Company forecasted weighted average cost of capital, considering the debt, preferred stock, and common equity balances and costs set forth above, is reflected in Schedule BIW-D2.

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

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

A. The lead-lag study analyzed the Company's cash transactions and invoices for the twelve months ended June 30, 2018.

Q. Please define what you mean by the phrase "cash working capital."

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

Q. What is a lead-lag study?

A. A lead-lag study is an analysis of revenue lags and expense leads. CWC 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 (i.e., the revenue lag). This lag is offset by a lead time during which the Company receives goods and services, but pays for them at a later date

(i.e., the expense lead). The "lead" and "lag" are both measured in days. The dollar-weighted lead and lag days are then divided by 365 to determine a daily CWC factor. This CWC factor is then multiplied by the annual test year cash expenses to determine the amount of cash working capital required for operations. The resulting amount of cash working capital is then included in the Company's rate base.

Q. Please explain the revenue lag in more detail.

A. As noted, the revenue lag refers to the elapsed time between the delivery of the Company's product (i.e., gas) and its ability to use the funds received as payment for the delivery of the product. The revenue lag actually consists of three components, as follows: the service lag, which is the number of days from the mid-point of the service period to the meter reading date; the billing lag, which is the time between when the meter is read and the bill is sent; and the collections lag, which is the time between when the bill is sent to the customer and when the customer's payment is received by the Company.

Q. Please explain the expense lead in more detail.

A. An 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. There are a number of different expense leads, since the Company acquires goods and services from a number of different sources.

Q. What sources of information are employed to determine the leads and lags in a CWC analysis for Ameren Missouri?

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

Q. How should the results of the CWC analysis be treated for ratemaking purposes?

A. The CWC requirements should be included as part of Ameren Missouri's rate base for ratemaking purposes.

XII. REVENUE LAGS

Q. Was one revenue lag applied to all of Ameren Missouri's revenues?

A. No. The Company calculated a base revenue lag that was applied to all cash operating revenues with the exception of pass-through taxes. A separate revenue lag was calculated and applied to all revenues associated with pass-through taxes.

1. Base Revenue Lag

Q. How was the base revenue lag determined?

A. The base revenue lag measures the number of days from the date service was rendered by the Company until the date payment was received from customers and such funds were deposited by the Company. In the calculation, the revenue lag was divided into three distinct components: 1) service lag; 2) billing lag; and 3) collections lag.

Considered together, these three components of the base revenue lag totaled 38.65 lag days. An explanation of each component of the base revenue lag follows.

Q. What is meant by service lag?

A. The service 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 the provisioning of service was 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 date on which the meter was read until the customer was billed. The billing lag was determined by analyzing the Company's monthly billing schedules and meter reading records. The average billing lag was determined to be 0.92 days.

Q. What is meant by collections lag?

A. The collections lag refers to the average amount of time from the date when the bill is sent to the customer to the date that the Company received payment from its customers. Based on weighted average data from the Company's Customer Service System, the average collection lag was determined to be 22.52 days.

Q. What data was used to calculate the collections lag?

A. The Company used data from the bill payment report which was created to support the calculation of the collections lag.

Q. Please describe the bill payment report used in the collections lag calculation.

A. The Company developed a bill payment report to aggregate actual customer payments. This allows us to better understand customer payment behavior. The bill payment report compares the date a customer is billed to the date the bill was paid to arrive at the lag days. The bill payment report summarizes the dollar amounts collected per lag day. Each line item is then weighted to calculate the weighted lag days. The bill payment report line items is conservatively capped at 150 days. The bill payment report was run monthly for the bill period July 2017 to June 2018.

Q. Has the Company used the bill payment report in past lead-lag studies?

A. Yes. Along with the Accounts Receivable Breakdown Report (Company report number CURCT617), the Company introduced the bill payment report in its last electric rate case (File No. ER-2016-0179) to determine the impact of the actual customer payment behavior due to the bill due date changing from 14 days to 21 days.

Q. Is the Company using the Accounts Receivable Breakdown Report in the collections study for this filing?

A. No, the Company is using the bill payment report because it reflects the actual customer payment behavior. The Accounts Receivable Breakdown report uses accounts receivables balances from the Company's general ledger and does not reflect actual customer payment behavior.

Q. How were uncollectible revenues treated in your analysis?

A. The bill payment report aggregates actual customer payments. Therefore, an adjustment for uncollectible revenues is not needed in the analysis.

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

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

Table 3

Base Revenue Lag Component	Lag Days
Service	15.21
Billing	0.92
Collections	22.52
Total Revenue Lag	38.65

2. <u>Pass-Through Taxes Revenue Lag</u>

Q. How does the revenue lag applied to pass-through taxes differ from the base revenue lag?

A. The only difference between the base revenue lag and the revenue lag which is applied to the pass-through taxes is that the revenue lag applied to pass-through taxes excludes the service lag. Therefore, the revenue lag applied to pass-through taxes is 23.44 days.

Q. Why should a different revenue lag be applied to the pass-through tax revenues?

A. In prior cases,[2] the Commission Staff has argued that pass-through taxes are not generated as a result of the provisioning of a service by the utility. Therefore, in these proceedings a revenue lag which excludes a lag associated with the provisioning of utility service has been applied to the pass-through tax revenues.

Q. Are the revenues attributable to pass-through taxes collected in the same manner and at the same time as all other revenues?

A. Yes. The Company's customers pay one bill. That bill (and thus the payment) includes both operating revenues associated with the provisioning of gas service as well as revenues associated with pass-through taxes.

Q. What impact does the exclusion of the service lag have on the CWC calculation?

A. The service lag represents the period of time during which the Company has provided a service for which it has not yet been compensated. Since the Company serves primarily as a collect and remit agent for the various taxing bodies, by excluding the service lag from the revenue lag applied to the pass-through taxes, the Company is reflecting that it has no out-of-pocket expense for which it is awaiting payment.

[2] Such proceedings include Case Nos. ER-2010-0036 (AmerenUE), ER-2008-0318 (AmerenUE), ER-2007-0291 (Kansas City Power & Light Company), ER-2008-0093 (The Empire District Electric Company), GR-2007-0208 (Laclede Gas Company), GR-2006-0422 (Missouri Gas Energy).

XIII. EXPENSE LEADS

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 lead-lag study: (a) employee pensions and benefits; (b) base payroll; (c) payroll taxes (i.e. FICA social security) and other withholdings; (d) cost of gas; (e) other operations and maintenance expenses; (f) general taxes other than income taxes excluding pass-through taxes; (g) pass-through taxes; (h) federal income taxes; (i) state income taxes; (j) interest on long-term debt; and (k) incentive compensation.

Q. What types of leads associated with the Company's Employee Benefit programs were considered in the analysis?

A. The estimated lead times associated with the following major categories of the Company's employee benefit programs were considered: (a) group life insurance; (b) group health insurance including claims processing, claims payment, and administration costs; (c) contributions to the Company's pension fund; (d) Other Post-Employment Benefits ("OPEB") costs; and (e) the Company's 401-K plan. Taken together, these programs had a dollar-weighted lead time of 16.89 days.

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

A. The analysis of invoices paid to the Company's providers of group life insurance indicated a weighted average lead time of 25.95 days.

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

A. The Company's group health insurance program had three major categories of activities: (a) claims processing, i.e., from the time a claim was filed to the time it was processed; (b) claims payment, i.e., from the time the provider provided the claim to the Company for reimbursement and the time the reimbursement occurred; and (c) administration-related expenses. Based on annual summaries of performance provided to the Company by its group health plan administrators, the claims processing period was determined to be 5.18 days. Additionally, based on actual service requests and electronic payment instructions from the Company's Human Resources Department, the claims reimbursement time was determined to be 12.30 days. Finally, based on an examination of invoices and payment instructions from within the Company's accounts payable system, a lead time of 12.77 days was derived for group health administration expenses.

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

A. The Company made two quarterly and one semi-annual contribution to its pension plan during the twelve months ended June 30, 2018. Taking this information into account and using the actual date and dollar contributions made by the Company, a pension expense lead time of 8.53 days was determined.

Q. What was the expense lead associated with the funding of the Company's OPEB fund?

A. The Company made no contributions to the OPEB fund during the twelve months ended June 30, 2018. Since there were no contributions in the proposed test year, OPEBs were excluded from the expense lead calculation for employee benefits.

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

A. The expense lead time associated with the Company's 401-K plan contributions was 13.94 days.

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

A. Payroll lead days were determined by calculating the nominal and weighted lead time by pay period and weighting the resulting lead days by the amounts paid out by the Company to cover their payroll obligations. The resulting total on a dollar-weighted basis was 10.29 days.

Q. Were any adjustments made to the Company's payroll lead days?

A. Yes. Beginning in November 2018, the Company changed the payroll date for management co-workers. The pay periods are not changing, only the pay dates. Management pay dates shifted from the 15th and last day of each month to the 13th and 28th of each month. The change in the payroll date for management co-workers impacted all of the payroll expense line items.

Q. What was the impact of this change to the Company's payroll lead days?

A. The Company's dollar weighted payroll lead days prior to the change was 11.14 days. The Company's daily weighted payroll lead days after the change which is included in the study being presented is 10.29 for a reduction of 0.85 days.

Q. Please explain the lead effects associated with payroll taxes.

A. The Company has outsourced its payroll tax processing to a third-party provider, Ceridian. The payroll taxes outsourced to Ceridian include, (a) federal and state withholding taxes; b) federal and state unemployment taxes; c) FICA (Social Security) taxes and Medicare taxes for both employee and employer; and d) City of St. Louis employee withholding tax and City of St. Louis employer expense. Ceridian pulls all payroll taxes out of the Company's bank account on the same date as when employees are paid. Therefore, the payroll taxes lead time is equal to the base payroll lead time of 9.50 days.

Q. How was the vacation accrual handled in the lead-lag study?

A. For the gas business, the accrual variation from the twelve months ended June 30, 2017, to the twelve months ended June 30, 2018, produced a negative result; therefore, instead of reducing the lead-lag days, the vacation accrual was excluded from the analysis.

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

A. The Company engages in transactions with other vendors (not associated with pensions, benefits, payroll, fuel, or taxes) for a variety of purposes including facility maintenance, system maintenance, 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 37.84 days after receipt.

Q. What is the expense lead time associated with the Company's purchases of natural gas?

A. Based on an examination of invoices of the commodity and pipeline suppliers to the Company, a weighted expense lead time of 35.77 days was determined. This lead time includes a half month of service lead time.

Q. What are the various general taxes considered in the analysis?

A. The following general taxes were considered in the study: (a) real estate and property taxes; (b) Missouri sales tax; (c) St. Louis corporate earnings taxes; and (d) gross receipts taxes. When taxes were required to be paid to a single taxing authority pursuant to a set schedule, the statutory payment dates were considered in the analysis.

Q. Explain the lead effects associated with each type of non-pass through general taxes considered in the analysis.

A. The treatment of each category of general taxes in the study is described below:

a) Real Estate and Property Taxes: All current-year property taxes in Missouri are due on December 31st of the current year. Taking this schedule into consideration, a dollar-weighted expense lead of 182.50 days was calculated.

b) Missouri Sales Tax: 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. Estimated payments are made weekly with the tax return and remaining balance due by the 20th of the month following except for the last month at the end of the quarter for which the tax return and payment are due on the last day of the month following. Taking this information into account, and including a half month of service lead time, a weighted expense lead time of 10.10 days was determined.

c) St. Louis Corporate Earnings Tax: The Company pays corporate earnings taxes to the City of St. Louis. This tax is paid by check to the City of St. Louis annually on April 1st for the previous year. Taking this information into account, the expense lead time associated with corporate earnings taxes was determined to be 273.50.

Q. What pass-through taxes are included in the CWC analysis?

A. The only pass-through tax considered in the CWC analysis was gross receipts taxes.

Q. Please describe the timing of the payment of the Gross Receipt Taxes.

A. Gross receipts taxes are payable to municipalities and are paid as a percent of billings to customers within the municipality. These taxes are paid on the

last day of the month following the end of a month, with the exception of Cape Girardeau, Dexter, Jefferson City, Moberly, and Wentzville municipalities which are paid on the 20th day of the month. Based on the specific tax periods of the various municipalities, a dollar-weighted gross receipts tax expense lead time of 25.85 days was calculated.

Q. Does the lead time for gross receipts taxes include a service lead?

A. No. Since no service lag was included in the revenue lag assigned to pass-through taxes, there has been no service lead attributed to the gross receipts taxes.

Q. Please explain.

A. Both the service lag and the service lead are associated with the timing of the provisioning of service. If there is no service lag on the revenue side there can be no service lead on the expense side. Therefore, for consistency purposes, I have excluded both the service lag and service lead from the analysis of the pass-through taxes.

Q. How did your study address federal income taxes?

A. The lead time associated with federal income tax payments was based on the provisions of the Internal Revenue Code that require estimated tax payments of 25 percent of total income taxes due on April 15, June 15, September 15, and December 15 of the current year. Taking this schedule into consideration, a lead time of 37.88 days for federal income tax payments made by the Company was determined.

Q. How did the study address state income taxes?

A. State income taxes follow a pattern similar to federal taxes. Thus, assuming quarterly payments due on April 15, June 15, September 15, and December 15 of the current year, an expense lead time of 37.88 days was determined.

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

A. The Company's interest payments on its long-term bonds were made from current revenues. Thus, there was a lead (or lag) between the date the interest payments were collected from customers and the date when such amounts were paid to financial institutions. The Company generally made interest payments on its fixed rate long-term debt twice a year at varying times. On the auction rate bonds, the Company made interest payments every 35 days. Using actual due dates on interest payments, a dollar-weighted lead of 89.31 days for interest payments were determined.

Q. How did the study address contributions to the incentive compensation plans?

A. The Company made an annual contribution to incentive compensation programs for both the executive incentive plan and the management/bargaining unit plans during the proposed test year. The executive incentive plan contribution is made the last date in February while the management/bargaining unit contributions are made during the

first pay period in March. Based on an examination of the contributions to the incentive compensation plans, a weighted average lead time of 252.23 days was determined.

Q. Please describe Schedule BIW-D6.

A. Schedule BIW-D6 summarizes the leads and lags discussed within my direct testimony. These leads and lags are used by Company witness Laura Moore to calculate the Company's cash working capital requirements.

Q. Does this conclude your direct testimony?

A. Yes, it does.

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 for Natural Gas Service.	)))	File No. GR-2019-0077

AFFIDAVIT OF BRENDA I. WEBER

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

Brenda I. Weber, being first duly sworn on his oath, states:

1. My name is Brenda I. Weber. I work in the City of St. Louis, Missouri, and I am employed by Ameren Services Company as Assistant Treasurer & Director of Corporate Finance.

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 31 pages and Schedule(s) BIW-D1 to BIW-D6, 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.

Brenda I. Weber

Subscribed and sworn to before me this 27th day of November, 2018.

Notary Public

My commission expires: March 7, 2021

CATHLEEN A DEHNE
Notary Public – Notary Seal
St. Louis City – State of Missouri
Commission Number 17119727
My Commission Expires Mar 7, 2021

STATEMENT OF QUALIFICATIONS
BRENDA I. WEBER

I received my Bachelor of Science degree in Accounting from Bradley University in 1986. I earned my CPA certificate from the state of Illinois in 1989. I received my Master of Business Administration degree, with a concentration in finance, in 1991 from Bradley University.

I have more than twenty-seven years of utility experience in various accounting, financial reporting, tax, forecasting, and finance roles. I joined Central Illinois Light Company ("CILCO") in 1991 as an Accounting Analyst, focusing primarily on United States Securities and Exchange Commission reporting. In 1993, I transferred into the tax department as a tax accountant and was promoted to Senior Tax Accountant in 1995. While in the tax group, I performed a wide range of tax accounting, tax compliance, and tax research duties. In 1997, I moved into the Treasury Department and was promoted to Senior Financial Analyst. I had responsibility for short-term debt projections, short-term and long-term financing, cash management, evaluation of strategic opportunities, communication with rating agencies, and management of non-regulated leveraged lease investments. In early 2003, Ameren completed its acquisition of CILCO. I joined Ameren Services in 2003 as a Finance Professional, focusing on disposition of non-utility leveraged lease investments. In 2004, I transferred to Financial Forecasting and was subsequently promoted to Supervisor of Corporate Model and later Manager of Corporate Model. While in the Financial Forecasting Department, I was responsible for developing financial models and earnings forecasts for Ameren and its subsidiaries. In August of 2014, I transitioned to into the Treasury Department of Ameren Services as the Manager Corporate Finance. In

July of 2018, I was prompted to my current position in the Treasury Department of Ameren Services as Assistant Treasurer and Director Corporate Finance.

Union Electric Company d/b/a Ameren Missouri
Capital Structure/ Weighted Average Cost of Capital

at 5/31/2019:

CAPITAL COMPONENT	AMOUNT	PERCENT OF TOTAL	COST	WEIGHTED COST
Long-Term Debt	$3,789,953,689	47.141%	4.662%	2.198%
Short-Term Debt	$0	0.000%	0.000%	0.000%
Preferred Stock	$81,827,509	1.018%	4.180%	0.043%
Common Equity	$4,167,770,616	51.841%	10.300%	5.340%
TOTAL	**$8,039,551,814**	**100.000%**		**7.581%**

Union Electric Company d/b/a Ameren Missouri
Embedded Cost of Long-Term Debt

at May 31, 2019

SERIES	COUPON (a)	ISSUED	MATURITY	PRINCIPAL	FACE AMOUNT OUTSTANDING	UNAMORTIZED BALANCES			CARRYING VALUE	ANNUALIZED COUPON INT.(b)	ANNUALIZED AMORTIZATION			ANNUALIZED EXPENSE	EMBEDDED COST
						DISC/(PREM)	ISSUE EXP.	LOSS			DISC/(PREM)	ISSUE EXP	LOSS		
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
Senior Secured Notes	5.100%	23-Sep-04	01-Oct-19	$300,000,000	$244,311,000	$2,332	$44,176			$12,459,861	$6,996	$132,528			
Senior Secured Notes	5.000%	27-Jan-05	01-Feb-20	$85,000,000	$85,000,000	$29,920	$31,768			$4,250,000	$44,880	$47,652			
Senior Secured Notes	3.500%	04-Apr-14	15-Apr-24	$350,000,000	$350,000,000	$30,450	$1,405,224			$12,250,000	$6,300	$290,736			
Senior Secured Notes	2.950%	15-Jun-17	15-Jun-27	$400,000,000	$400,000,000	$1,049,637	$2,716,000			$11,800,000	$129,852	$336,000			
First Mortgage Bonds	5.450%	15-Oct-93	01-Oct-28	$44,000,000	$5,000	$10	$19			$273	$1	$2			
First Mortgage Bonds	3.925%	01-Mar-19	01-Mar-29	$450,000,000	$450,000,000	$0	$3,564,583			$17,662,500	$0	$362,500			
Senior Secured Notes	5.500%	10-Mar-03	15-Mar-34	$184,000,000	$184,000,000	$980,780	$860,808			$10,120,000	$66,120	$58,032			
Senior Secured Notes	5.300%	21-Jul-05	01-Aug-37	$300,000,000	$300,000,000	$577,264	$1,692,770			$15,900,000	$31,776	$93,180			
Senior Secured Notes	8.450%	20-Mar-09	15-Mar-39	$350,000,000	$350,000,000	$770,406	$2,298,366			$29,575,000	$38,844	$115,884			
Senior Secured Notes	3.900%	11-Sep-12	15-Sep-42	$485,000,000	$485,000,000	$1,984,080	$3,758,440			$18,915,000	$85,032	$161,076			
Senior Secured Notes	3.650%	06-Apr-15	15-Apr-45	$250,000,000	$250,000,000	$508,090	$2,407,460			$9,125,000	$19,668	$93,192			
Senior Secured Notes	3.650%	23-Jun-16	15-Apr-45	$150,000,000	$150,000,000	$672,390	$1,579,140			$5,475,000	$26,028	$61,128			
First Mortgage Bonds	4.000%	06-Apr-18	01-Apr-48	$425,000,000	$425,000,000	$1,768,406	$4,357,524			$17,000,000	$61,332	$151,128			
Environmental Improvement, Series 1992	2.608%	01-Dec-92	01-Dec-22	$47,500,000	$47,500,000		$76,314			$1,314,800		$21,804			
Environmental Improvement, Series 1998 ABC	3.202%	04-Sep-98	01-Sep-33	$160,000,000	$160,000,000		$790,191			$5,459,000		$55,452			
TOTAL LONG-TERM DEBT				**$3,980,500,000**	**$3,880,816,000**	**$8,373,765**	**$25,582,784**	**$56,905,762**	**$3,789,953,689**	**$171,306,434**	**$516,829**	**$1,980,294**	**$2,877,804**	**$176,681,361**	**4.662%**

Carrying Value = Face Amount Outstanding less Unamortized Discount, Issuance Expenses, and Loss on Reacquired Debt
C10 = C6 - C7 - C8 - C9
Annualized Expense = Annual Coupon Interest plus Annual Amortization of Discount, Issuance Expenses, and Loss on Reacquired Debt
C15 = C11 + C12 + C13 + C14
Embedded Cost = Annualized Expense divided by Carrying Value
C16 = C15 / C10

(a) Coupon rate for variable rate auction securities reflects prevailing rates as of 10/09/18 and includes ongoing broker dealer fees.
(b) Annualized coupon interest (C11) includes annual bond insurance premiums, where applicable.
Note: Highlighted series reflects current estimates.

Union Electric Company d/b/a Ameren Missouri
Cost of Short-Term Debt

MONTH C1	BALANCE OF SHORT-TERM DEBT (a) C2	BALANCE OF TOTAL CWIP C3	BALANCE OF CWIP ACCRUING AFUDC (b) C4	NET AMOUNT OUTSTANDING C5	INTEREST RATE C6
June 2018	$0	$653,267,271	$674,984,829	$0	--
July	$0	$677,194,152	$679,322,895	$0	--
August	$0	$626,012,831	$711,404,947	$0	--
September	$0	$675,925,281	$656,102,125	$0	--
October	$0	$737,977,650	$745,357,427	$0	--
November	$0	$763,140,926	$770,772,335	$0	--
December	$23,731,501	$518,882,452	$524,071,277	$0	--
January 2019	$230,567,287	$599,630,866	$605,627,175	$0	--
February	$607,152,381	$655,417,059	$661,971,230	$0	--
March	$285,587,545	$713,269,524	$720,402,219	$0	--
April	$329,733,379	$774,190,531	$781,932,436	$0	--
May	$375,191,041	$636,607,386	$642,973,460	$0	--
AVERAGE	**$154,330,261**	**$669,292,994**	**$681,243,529**	**$0**	

C5 Net Amount Outstanding = Balance of Short-Term Debt less Balance of CWIP Accruing AFUDC
C5 = C2 - C4

(a) Short-term debt amounts are net of cash and short-term investments. Negative amounts are excluded.
(b) CWIP accruing AFUDC is estimated to be 101% of CWIP for the months October 2018 through May 2019.

Union Electric Company d/b/a Ameren Missouri
Embedded Cost of Preferred Stock

at May 31, 2019

SERIES, TYPE, PAR C1	DIVIDEND C2	ISSUED C3	MATURITY C4	SHARES OUTSTANDING C5	PAR ISSUED/ OUTSTANDING C6	PREMIUM C7	ISSUANCE EXPENSE/DISCOUNT C8	NET PROCEEDS C9	ANNUAL DIVIDEND C10	EMBEDDED COST C11
$3.50 Series, Perpetual, $100 par	$3.500	01-May-46	-	130,000	$13,000,000	($910,000)	$252,772	$13,657,228	$455,000	
$3.70 Series, Perpetual, $100 par	$3.700	01-Oct-45	-	40,000	$4,000,000	($70,000)	$69,396	$4,000,604	$148,000	
$4.00 Series, Perpetual, $100 par	$4.000	01-Nov-49	-	150,000	$15,000,000	($384,000)	$326,896	$15,057,104	$600,000	
$4.30 Series, Perpetual, $100 par	$4.300	01-Jul-46	-	40,000	$4,000,000			$4,000,000	$172,000	
$4.50 Series, Perpetual, $100 par	$4.500	01-May-41	-	213,595	$21,359,500	($825,000)	$440,294	$21,744,206	$961,178	
$4.56 Series, Perpetual, $100 par	$4.560	01-Nov-63	-	200,000	$20,000,000	($266,000)	$297,633	$19,968,367	$912,000	
$4.75 Series, Perpetual, $100 par	$4.750	01-Oct-49	-	20,000	$2,000,000			$2,000,000	$95,000	
$5.50 Series, Perpetual, $100 par	$5.500	01-Oct-41	-	14,000	$1,400,000			$1,400,000	$77,000	
TOTAL PREFERRED STOCK					**$80,759,500**	**($2,455,000)**	**$1,386,991**	**$81,827,509**	**$3,420,178**	**4.180%**

issuance expenses, discount/premium, and any loss incurred in acquiring/redeeming prior series are not amortized due to the perpetual nature of the company's preferred stock

Net Proceeds = Par Value Outstanding plus Premium less Issuance Expense and Discount

C9 = C6 + C7 - C8

Embedded Cost = Annual Dividend divided by Net Proceeds

C11 = C10 / C9

Ameren Missouri

Cash Working Capital Requirement

For the Twelve Months Ended June 30, 2018

Line No.	Description	Revenue Lag	Expense Lead	Net Lag	CWC Factor
	(A)	(B)	(C)	(D)	(E)
1	Pensions & Benefits	38.65	(16.89)	21.76	0.0596
2	Payroll and Withholdings	38.65	(10.29)	28.36	0.0777
3	Payroll Taxes	38.65	(9.50)	29.14	0.0798
4	Other Operations and Maintenance Expenses	38.65	(37.84)	0.81	0.0022
5	Property/Real Estate Taxes	38.65	(182.50)	(143.85)	(0.3941)
6	Sales Tax	38.65	(10.10)	28.54	0.0782
7	Gross Receipts Taxes	23.44	(25.85)	(2.41)	(0.0066)
8	Federal Income Tax	38.65	(37.88)	0.77	0.0021
9	State Income Tax	38.65	(37.88)	0.77	0.0021
10	St Louis Corporate Earnings Tax	38.65	(273.50)	(234.85)	(0.6434)
11	PGA Expense	38.65	(35.77)	2.87	0.0079
12	Interest Expense	38.65	(89.31)	(50.67)	(0.1388)
13	Incentive Compensation	38.65	(252.23)	(213.58)	(0.5852)