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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2019-0335

DIRECT TESTIMONY

OF

LAURA M. MOORE

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

St. Louis, Missouri
July 2019

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DIRECT TESTIMONY

OF

LAURA M. MOORE

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Laura Moore and my business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your position with Ameren Missouri?

A. I am the Controller for Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "the Company").

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Science degree in Accounting from the University of Missouri at Columbia in May 1991 and a Masters of Business Administration from St. Louis University in May 1997. I am a Certified Public Accountant, licensed to practice in the state of Missouri. From 1992 to 1994, I worked for Preferred Pipe Products, Inc., in St. Louis, Missouri, in various capacities, including Staff Accountant in 1992 and Accounting Manager from 1992 to 1994. I worked with Eagleton Enterprises in St. Louis, Missouri, as an Accounting Manager from 1994 to 1995. I worked with Merit Behavioral Care in St. Louis, Missouri, as an Accountant from 1995 to 1997. I worked with Clark Refining and Marketing in St. Louis, Missouri, as a Financial Analyst from 1997 to 1999. From 1999 to 2002, I worked at Emerson Tool Company in St. Louis, Missouri, in the Financial Analysis

Department, first as an Analyst and then as the Manager. I have worked for Ameren Missouri or one of its affiliates since 2002. My experience at Ameren has included working in plant accounting and fuel accounting for Ameren Services Company ("AMS") and in regulatory accounting for Ameren Missouri, including as Ameren Missouri's Director of Regulatory Accounting, from July 2012 to March 2019. Earlier this year, I was promoted to the position of Controller, Ameren Missouri.

I am a former Vice Chairperson of the Edison Electric Institute's ("EEI") Property Accounting and Valuation Committee. Prior to that, I was a member of the Leadership Committee for EEI's Property Accounting and Valuation Committee.

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony and attached Schedules LMM-D1 through LMM-D18 is to develop the revenue requirement (cost of service) for the electric operations of Ameren Missouri. The revenue requirement determines the level of electric revenues required to pay operating expenses, to provide for depreciation and taxes, and to permit our investors an opportunity to earn a fair and reasonable return on their investment. Ameren Missouri witness Thomas Hickman uses this data as the starting point for his class cost of service study. In addition, I will provide testimony on the calculation of net base energy costs ("B" in the FAC tariff sheets and sometimes referred to as net base energy costs ("NBEC")) which are used in the formula appearing in Ameren Missouri's fuel adjustment clause ("FAC") tariff as well as the rate values reflected in the FAC, i.e., the summer and winter values for Factor BF as defined in the FAC tariff. These calculations appear in my Schedule LMM-D18.

Q. What test year is the Company proposing to use to establish the revenue requirement in this proceeding?

A. The Company is proposing a test year consisting of the twelve months ended December 31, 2018, with pro forma adjustments to account for the true-up of various items through December 31, 2019, consistent with the approach used in the Company's last several rate cases. The Company is proposing to true-up the following items: plant-in-service, depreciation reserve, materials and supplies (including fuel inventories), pre-payments, cash working capital (excluding lead/lag days), customer advances for construction, customer deposits, accumulated deferred income taxes, pension and Other Post-Employment Benefits ("OPEB"), tracked regulatory asset/liability balances, cloud computing costs, new Internal Revenue Service ("IRS") FIN 48 settlements (if any), revenues, customer growth, net energy costs (as defined in Rider FAC), refined coal project revenues and expenses, Midcontinent Independent System Operator, Inc. ("MISO") transmission revenues and expenses, compensation, number of employees, employee benefits, Renewable Energy Standard ("RES") costs, insurance expenses, the Missouri Public Service Commission ("MPSC") assessment, lease expenses, capital structure, depreciation expenses, various amortizations (such as the pension & OPEB tracker amortization), and property taxes. The Company will also true-up coal prices, MISO Schedule 26-A rates, and wage increases that become effective January 1, 2020. Finally, the Company proposes that other significant items that may arise through the true-up date, both increases and decreases, should be included in the true-up.

Q. Are you sponsoring any schedules?

A. Yes. As noted, I am sponsoring Schedules LMM-D1 through LMM-D18.

Q. What is the subject matter of these schedules?

A. Schedules LMM-D1 and LMM-D3 through LMM-D17 develop the various elements of the revenue requirement to be considered in arriving at the proper level of rates for the Company's electric service based on the test year of the twelve months ended December 31, 2018, with pro forma adjustments and updates for known and measurable changes to be trued-up through December 31, 2019. Schedule LMM-D2 supports capitalization of certain cloud computing costs for ratemaking purposes as discussed further below. Schedule LMM-D18 shows the calculation of NBEC and the seasonal values for Factor BF in Rider FAC.

Q. Will you please briefly summarize the information provided on each of the schedules you are presenting?

A. Each schedule provides the following information:

- Schedule LMM-D1 – Original Cost of Electric Plant by functional classification at December 31, 2018, per book and pro forma.
- Schedule LMM-D2 – NARUC Resolution on Cloud Computing
- Schedule LMM-D3 – Electric Plant Reserves for Depreciation and Amortization by functional classification at December 31, 2018, per book and pro forma.
- Schedule LMM-D4 – Average Fuel Inventories and Average Materials and Supplies Inventories at December 31, 2018, per book and pro forma applicable to electric operations.
- Schedule LMM-D5 – Average Pre-payments at December 31, 2018, per book and pro forma applicable to electric operations.

- Schedule LMM-D6 – Total Electric Cash Working Capital (per the Company's lead/lag study) for the twelve months ended December 31, 2018, applicable to electric operations.
- Schedule LMM-D7 – Interest Expense Cash Requirement, Federal Income Tax Cash Requirement, State Income Tax Cash Requirement and City of St. Louis Earnings Tax Cash Requirement applicable to electric operations for the twelve months ended December 31, 2018.
- Schedule LMM-D8 – Average Electric Customer Advances for Construction and Average Electric Customer Deposits reductions to rate base at December 31, 2018.
- Schedule LMM-D9 – Regulatory Asset and Liability balances that are included in rate base at December 31, 2018, per book and pro forma.
- Schedule LMM-D10 – Total Electric Accumulated Deferred Income Taxes at December 31, 2018, per book and pro forma.
- Schedule LMM-D11 – Total Electric Operating Revenues for the twelve months ended December 31, 2018, per book and pro forma.
- Schedule LMM-D12 – Total Electric Operations and Maintenance Expenses, by functional classification, for the twelve months ended December 31, 2018, updated for certain known items, per book and pro forma. A description of each of the pro forma adjustments is included.
- Schedule LMM-D13 – Depreciation and Amortization Expenses applicable to electric operations, by functional classification, for the

twelve months ended December 31, 2018, per book and pro forma. A description of the pro forma adjustments is included.

- Schedule LMM-D14 – Taxes Other Than Income Taxes, for the twelve months ended December 31, 2018, per book and pro forma for the electric operations of the Company. A description of the pro forma adjustments is included.
- Schedule LMM-D15 – Income Tax Calculation at the proposed rate of return and statutory tax rates for the total electric operations of the Company.
- Schedule LMM-D16 – The pro forma Electric Net Original Cost Rate Base at December 31, 2018, and the Electric Revenue Requirement including the pro forma adjustments.
- Schedule LMM-D17 – The increase required at a 7.359% return on Net Original Cost Electric Rate Base, including pro forma adjustments.
- Schedule LMM-D18 – Calculation of NBEC and seasons values of Factor BF in Rider FAC.

II. REVENUE REQUIREMENT

Q. What do you mean by "revenue requirement"?

A. The revenue requirement of a utility is the sum of operating and maintenance expenses, depreciation and amortization expenses, taxes, and a fair and reasonable return on the net value of property used and useful in serving its customers. The revenue requirement is based on a test year and it is necessary to make certain pro forma adjustments in order to reflect conditions existing at the end of the trued-up test year, as well as significant changes that are known or reasonably certain to occur closer to the time new rates would take effect.

The revenue requirement represents the total funds (revenues) that must be collected by the Company if it is to pay employees and suppliers, satisfy tax liabilities, and provide a fair return to investors. To the extent that current revenues are greater than the revenue requirement, as is true in this case, a rate decrease is required.

Q. Why is it necessary to make pro forma adjustments to the test year data?

A. It is an axiom in ratemaking that rates are set for the future. In order for newly-authorized rates to have the opportunity to produce the allowed rate of return during the period they are in effect, it is often necessary to adjust the test year data so that it is more representative of future operating conditions. This requires pro forma adjustments to reflect known and measurable changes.

Q. Please explain Schedule LMM-D1.

A. Schedule LMM-D1 shows the recorded original cost of electric plant by functional classification at December 31, 2018, along with the estimated plant additions through December 31, 2019, which is the end of the Company's proposed true-up period.

Q. Are the Company's plant accounts recorded on the basis of original cost as defined by the Uniform System of Accounts prescribed by the MPSC?

A. Yes, they are.

Q. Please explain the elimination of the plant balances related to Financial Accounting Standard ("FAS") 143 Asset Retirement Obligation ("ARO"), which is shown as the first adjustment on Schedule LMM-D1.

A. FAS 143 is basically an accounting requirement to reflect the fact that the Company has a legal obligation to remove certain facilities in the future. Since Ameren Missouri is regulated and collects or expects to collect funds to cover removal costs through its rates, Adjustment 1 to plant in the amount of $169,284,000 eliminates the ARO investment for ratemaking purposes.

Q. Why is the Company including plant additions through December 31, 2019?

A. The Company is continuing to spend tens of millions of dollars each month on infrastructure replacements and improvements, including investments being made as part of its Smart Energy Plan. In order to provide the Company an opportunity to earn a fair and reasonable return on its total investment, it is necessary for the cost of service to reflect, as closely as possible, the level of the Company's investment at the time the new rates will become effective. Adjustment 2 adds the estimated plant-in-service additions of $1,021,968,000 from January 2019 through December 2019, which is the end of the proposed true-up period.

Q. Please explain Adjustment 3 to Electric Plant.

A. Adjustment 3 includes sums the Company has capitalized for ratemaking purposes for certain (described further below) cloud computing expenditures made during the test year and also including a pro forma adjustment for estimated expenditures through December 31, 2019. The capitalization of these sums is consistent with the ratemaking treatment recommended by a November 2016 National Association of Regulatory Utility Commissioners ("NARUC") resolution that encourages state regulators to consider whether cloud computing and on-premise solutions should receive similar regulatory accounting treatment; i.e., that both should be treated as a capital investment and eligible to earn a rate of return. The NARUC resolution is attached to my testimony as Schedule LMM-D2. Cloud computing arrangements can be divided into underlying components related to the use of the software license and maintenance of the software. Ameren Missouri has accounted for each component and, consistent with the regulatory accounting treatment of on-premise software, has only capitalized for ratemaking purposes the underlying software license component. The cloud computing expenditures including the pro forma adjustment total $3,363,000.

Q. Please explain the elimination of items of General Plant applicable to gas operations.

A. General Plant assets, such as general office buildings, the central warehouse, the central garage, software and computers, and office equipment, are used in both the electric and gas operations. For convenience, such facilities are presented as electric plant in our accounting records. Adjustment 4 eliminates the portion of the multi-use General Plant applicable to the Company's gas operations of $20,177,000.

Q. Why is Adjustment 5 to reduce the electric plant-in-service necessary?

A. In past Ameren Missouri rate cases, a portion of the Company's incentive compensation paid has either been disallowed or recovery was not requested. Within the accounting records of the Company, a portion of incentive compensation has been capitalized and added to plant-in-service. Adjustment 4 reduces the plant-in-service balance by $30,846,000 for the accumulated amount of any previously disallowed and/or not requested capitalized incentive compensation.

Q. After reflecting the above pro forma adjustments, what amount of electric plant-in-service is the Company proposing to include in rate base?

A. As shown in Schedule LMM-D1, the total electric plant-in-service is $18,987,298,000.

Q. Please explain Schedule LMM-D3.

A. Schedule LMM-D3 shows the electric plant reserve for depreciation and amortization at December 31, 2018, by functional group. It also indicates the pro forma adjustments.

Q. What pro forma adjustments were made to the reserve for depreciation?

A. The following adjustments were made to the reserve for depreciation on Schedule LMM-D3:

Adjustment 1 eliminates $34,485,000 from the depreciation reserve related to FAS 143 ARO. The plant related to FAS 143 was removed from rate base in Adjustment 1 to plant-in-service in Schedule LMM-D1.

Adjustment 2 increases the depreciation reserve by $546,062,000 to reflect the depreciation reserve increase on the December 31, 2018, plant-in-service for the proposed true-up through December 31, 2019.

Adjustment 3 increases the depreciation reserve by $22,114,000 for the pro forma additions to plant-in-service from January 1, 2019, through December 31, 2019, the proposed true-up period.

Adjustment 4 eliminates the accumulated depreciation and amortization reserve of $7,873,000 for the multi-use General Plant applicable to gas operations and corresponds to Adjustment 4 made to the plant accounts in Schedule LMM-D1.

The accumulated depreciation and amortization reserve is reduced by $10,728,000 in Adjustment 5 to reflect the accumulated depreciation and amortization applicable to a portion of capitalized incentive compensation reflected in Adjustment 5 in Schedule LMM-D1.

The pro forma accumulated provision for depreciation and amortization, as shown in Schedule LMM-D3, applicable to total electric plant-in-service is $8,595,769,000.

Q. Please explain Schedule LMM-D4.

A. Schedule LMM-D4 shows the average investment in fuel inventories, materials and supplies at December 31, 2018. Fuel consists of nuclear fuel, coal, minor amounts of oil and stored natural gas used for electric generation, emission allowances, and renewable energy credits ("RECs"). The nuclear fuel balances include the nuclear fuel in the reactor as well as the nuclear fuel on site. General materials and supplies include such items as poles, cross arms, wire, cable, line hardware, and general supplies. A thirteen-month average is used for all of these items, except nuclear fuel and coal inventory. An eighteen-month average is used for the nuclear fuel since the Callaway Energy Center is re-fueled every eighteen months. The coal inventory was set using the Company's coal inventory policy levels.

The actual thirteen-month average coal inventory has been decreased by $9,998,000 to reflect the January 2020 coal price per ton and the policy inventory levels in pro forma Adjustment 1.

Pro forma Adjustment 2 shown in Schedule LMM-D4 removes the portion of the average general materials and supplies inventory of $1,627,000 applicable to the Company's gas operations.

Q. What is the amount of the pro forma materials and supplies applicable to electric operations?

A. The pro forma materials and supplies applicable to total electric operations, as shown in Schedule LMM-D4, is $507,557,000.

Q. Please explain the average pre-payments shown in Schedule LMM-D5.

A. Certain costs for rent, insurance, service agreements, medical, and dental voluntary employee beneficiary association ("VEBA"), and litigation are paid in advance. The thirteen-month average balance of total electric pre-payments at December 31, 2018, after eliminating the portion applicable to gas operations, is $14,088,000.

Q. Please explain Schedule LMM-D6.

A. Schedule LMM-D6 shows the calculation of the electric cash working capital requirement as a negative cash requirement of ($6,411,000), which is based on a lead/lag study for the twelve months ended December 31, 2018, including the pro forma adjustments to the operating expenses. The development of the various revenue lags and expense leads is explained in the direct testimony of Company witness Brenda I. Weber.

Q. What appears on Schedule LMM-D7?

A. The interest expense cash requirement, the federal income tax cash requirement, the state income tax cash requirement, and the city earnings tax cash requirement applicable to the Company's electric operations are shown in Schedule LMM-D7. The payment lead times for these items are based on actual or statutory due dates.

Q. What is the cash requirement for the interest expense, the federal income taxes, the state income taxes, and the city earnings tax?

A. Reflecting the payment lead times for each of these items compared to the revenue lag results in negative cash requirements of ($24,541,000) for interest expense, ($145,000) for federal income taxes, ($26,000) for state income taxes, and ($274,000) for city earnings tax.

Q. What items are shown in Schedule LMM-D8?

A. The thirteen-month average balances at December 31, 2018, for electric customer advances for construction and electric customer deposits are shown in Schedule LMM-D8. These items represent cash provided by customers that can be used by the Company until they are refunded. Therefore, the average balances for the customer advances for construction and customer deposits are reductions to the Company's rate base.

Customer advances for construction are cash advances made by customers that are subject to refund to the customer in whole or in part. These advances provide the Company cash that offsets the cost of the construction until they are refunded. The thirteen-month average balance of electric customer advances for construction at December 31, 2018, is ($7,405,000).

Customer deposits are cash deposits made by customers which are subject to refund to the customer if the customer develops a good payment record. The Company pays interest on the deposits, which is shown as a customer accounting expense in Schedule LMM-D12. The thirteen-month average balance of electric customer deposits at December 31, 2018, is ($27,131,000).

Q. What is shown in Schedule LMM-D9?

A. Schedule LMM-D9 shows the pension and OPEB regulatory liability balances, the PISA (addressed further below) regulatory asset balance, and a regulatory asset representing the impact of continued amortization for balances expected to be fully amortized prior to December 31, 2018.

The pension and OPEB regulatory liability balances shown are for the period ended December 31, 2018, as amortized through December 2019, the end of the proposed true-up period. In File No. ER-2016-0179 (Ameren Missouri's most recent electric rate case), the pension and OPEB tracker expenses that were established in File No. ER-2012-0166 (Ameren Missouri's 2012/2013 electric rate case), for the period from March 2011 through July 2012 were re-based, and the regulatory asset for OPEB expenses and the regulatory liability for pension expenses will be fully amortized in October 2019. The amount included for this regulatory asset and liability has the additional amortization recorded after the amount is fully amortized so that it can be offset by the other regulatory liabilities for pension and OPEB expenses. In File No. ER-2014-0258, the pension and OPEB tracker expenses from August 2012 through December 2014 were established, and the regulatory asset and liabilities at December 31, 2014, are being amortized over five years. In File No. ER-2016-0179, the pension and OPEB tracker expenses from January 2015 through December 2016 were established, and the regulatory assets and liabilities at December 31, 2016, are being amortized over five years. In addition, the estimated pension and OPEB tracker expenses from January 1, 2017 through the end of the proposed true-up period (December 31, 2019), are also included with one-fifth of the net regulatory asset and liability balance at December 31, 2019, being included in the revenue requirement in this case, reflecting amortization over a period of five years. The pension tracker and the OPEB tracker are projected to have regulatory liability balances at December 31, 2019. The net balance of the pension tracker and the OPEB tracker is a regulatory liability of ($47,102,000). As the net of these items is a regulatory liability, the rate base is reduced by that amount.

Schedule LMM-D9 also includes a PISA regulatory asset balance. PISA (plant-in-service accounting) is the name commonly given to the deferrals of 85% of the depreciation expenses and return on "qualifying electric plant" as required by Section 393.1400, RSMo., under legislation adopted by the Missouri General Assembly in 2018. The PISA regulatory asset balance of $45,180,000 reflects that deferral associated with all qualifying electric plant recorded to plant-in-service commencing on or after September 1, 2018, through December 31, 2018, and also including a pro forma adjustment for 85% of the estimated return and depreciation on qualified electric plant to be placed in service during 2019. The statute also provides that in each general rate proceeding, the balance of the PISA regulatory asset as of the rate base cutoff date (i.e., December 31, 2019) shall be included in the participating utility's rate base.

In the Unanimous Stipulation and Agreement in File No. ER-2016-0179, Ameren Missouri's last electric rate proceeding, the Company agreed that the balance of each amortization relating to regulatory assets or liabilities that remain, after full recovery by Ameren Missouri (regulatory asset) or full credit to Ameren Missouri's customers (regulatory liability), shall be applied as offsets to other amortizations which do not expire before Ameren Missouri's new rates from this general rate proceeding take effect. The agreement also provides that if no other amortization expires before Ameren Missouri's new rates take effect, then the remaining unamortized balance of any regulatory asset or liability that did not expire before new rates take effect shall be a new regulatory liability or asset that is amortized over an appropriate period. Finally, the Company agreed that any over or under-recovery of a regulatory asset/liability will be treated in the same manner as the underlying asset/liability, meaning that if the underlying regulatory asset/liability was included in rate base the over/under-recovery shall also be included in rate base, but if the underlying regulatory asset/liability was not included in rate base neither shall the over/under-recovery.

In accordance with the File No. ER-2016-0179 Stipulation and Agreement, a regulatory asset of $33,000 increases Ameren Missouri rate base for the combined effect of regulatory assets and liabilities that were previously included in rate base but which will expire prior to the operation of law date in this case (or soon after). The combined over/under-recovery of such regulatory assets and liabilities expected through December 31, 2019, has also been included in this adjustment. Refer to the discussion of Schedule LMM-D13 below for the inventory of regulatory assets and liabilities that are expected to expire prior to when new rates from this general rate proceeding take effect and have, therefore, been combined.

Q. Please explain Schedule LMM-D10.

A. Schedule LMM-D10 lists the accumulated deferred income taxes applicable to total electric operations at December 31, 2018, and the pro forma adjustments required to move the balances forward to December 31, 2019, the end of the proposed true-up period. Accumulated deferred income taxes are the net result of normalizing the tax benefits resulting from timing differences between the periods in which transactions affect taxable income and the periods in which such transactions affect the determination of pre-tax income.

Currently, the Company has deferred income taxes in Federal Energy Regulatory Commission ("FERC") Accounts 190, 281, 282, and 283. As shown in Schedule LMM-D10, the total electric pro forma accumulated deferred income tax balance is a net balance of ($2,867,380,000). The net deferred income taxes are a deduction from rate base.

Q. What is the Company's pro forma net original cost electric rate base at December 31, 2018?

A. The Company's total electric rate base as shown in Schedule LMM-D16 is $7,997,972,000, consisting of:

	In Thousands of $
Original Cost of Plant-In-Service	$18,987,298
Less Reserve for Depreciation & Amortization	8,595,769
Net Original Cost of Plant	10,391,529
Average Fuel, Materials & Supplies	507,557
Average Pre-payments	14,088
Cash Working Capital (Lead/Lag)	(6,411)
Federal Income Tax Cash Requirement	(145)
State Income Tax Cash Requirement	(26)
City Earnings Tax Cash Requirement	(274)
Interest Expense Cash Requirement	(24,451)
Average Customer Advances for Construction	(7,405)
Average Customer Deposits	(27,131)
Pension Tracker Regulatory Asset	(40,127)

OPEB Tracker Regulatory Liability	(6,975)
PISA Regulatory Asset	45,180
Under Collect Amortizations in Rate Base	33
Accumulated Deferred Income Taxes	(2,867,380)
Total Electric Rate Base	$7,977,972

Q. Please explain Schedule LMM-D11.

A. Schedule LMM-D11 shows total electric operating revenues per book and pro forma for the twelve months ended December 31, 2018, with customer growth through December 31, 2019, the end of the proposed true-up period.

Q. Please explain the pro forma adjustments to the electric operating revenues shown in Schedule LMM-D11.

A. The following pro forma adjustments are shown in Schedule LMM-D11:

Adjustment 1 eliminates revenue add-on taxes of $156,929,000, as they are directly passed through to customers by the Company. Adjustment 2 eliminates the Missouri Energy Efficiency Investment Act ("MEEIA") revenues of $114,500,000, as they are now collected through the MEEIA Rider rather than through base rates. Adjustment 3 eliminates the FAC revenues of $45,258,000 from revenues. Since the Company is re-basing the net base energy costs in the FAC, it is appropriate to eliminate the revenues from FAC recoveries. Adjustment 4 eliminates the effect of unbilled revenues by increasing revenues by $7,520,000. After the unbilled revenues adjustment, book revenues are reflected on a on a bill cycle basis. Because new retail rates (resulting from File No. ER-2018-0362) were effective August 1, 2018, Adjustment 5 decreases revenues by $115,711,000 to annualize the effect of those new rates. Adjustment 6 increases revenues by $4,772,000 to reflect customer growth through December 31, 2018. Additional customer growth through

December 31, 2019, of $7,507,000, is reflected in Adjustment 7. Due to the impact of energy efficiency efforts, revenues are being reduced by $15,437,000 in Adjustment 8. Since the Company uses cycle and window billing, revenues are decreased by $8,515,000 to reflect normal billing days in Adjustment 9. Adjustment 10 increases revenues by $3,069,000 to synchronize the book revenues with the revenues developed by Mr. Hickman in his billing unit rate analysis, as discussed in Mr. Hickman's direct testimony. The revenues were decreased in Adjustment 11 by $105,064,000 to reflect normal weather because the sales and revenues for the twelve months ended December 31, 2018, were higher than normal.

The provision for rate refunds of $89,621,000, applicable to the operation of the Company's FAC, is eliminated in Adjustment 12. Since the Company is re-basing the net base energy costs in its FAC, it is appropriate to eliminate the provision for rate refunds.

The "other electric revenues" in Schedule LMM-D11 were decreased by $1,443,000 in Adjustment 13 to adjust for transmission revenues through December 31, 2019, the proposed true-up date. The revenues were increased by $11,000 to annualize the lease revenues from coal refinement in Adjustment 14. In Adjustment 15, revenues were increased by $4,463,000 to reflect the 2019 intercompany rental calculations for Ameren affiliates' use of Ameren Missouri buildings, primarily the St. Louis General Office Building. In Adjustment 16, the Company is decreasing revenues by $1,690,000 because certain software assets will be fully amortized prior to the true-up date.

In Adjustment 17, the losses of $1,000 recognized in the disposition of emissions allowances are eliminated as a non-recurring item. These losses should be eliminated to reflect a normal on-going level of revenues.

Q. Are the revenues from off-system energy sales included in Schedule LMM-D11?

A. Yes, Adjustment 18 in Schedule LMM-D11 increases the actual off-system sales revenues from energy by $38,156,000, to reflect a normal level of off-system sales and revenues calculated using the current normalized market price for energy and the annualized power market revenues from MISO and ancillary services revenue, as discussed in the direct testimony of Company witness Andrew Meyer. Adjustment 19 decreases sales of capacity by $4,442,000, to reflect a normal level of capacity sales, as is also addressed in Mr. Meyer's direct testimony. The production cost model ("PROSYM"), explained in the direct testimony of Company witness S. Hande Berk, was used to develop the normal off-system sales volumes and revenues from energy sales.

Q. What are the pro forma electric operating revenues for the twelve months ended December 31, 2018?

A. The pro forma electric operating revenues for the twelve months ended December 31, 2018, are $3,031,585,000, including the off-system sales revenues.

Q. Please describe what is shown in Schedule LMM-D12.

A. Total electric operating and maintenance expenses for the twelve months ended December 31, 2018 (per books by functional classification), a listing of the pro forma adjustments, and the pro forma electric operating and maintenance expenses by functional classification, are shown in Schedule LMM-D12.

Q. Will you please explain the pro forma adjustments to electric operating expenses for the twelve months ended December 31, 2018?

A. A summary of the pro forma adjustments to operating expenses appears in Schedule LMM-D12. Adjustment 1 reflects the increased labor expenses from annualizing the 2.50% wage increase for the Company's union employees effective July 1, 2018, and July 1, 2019, per the labor contracts. In addition, management employees' average wage increases of 3.02% effective January 1, 2019, and January 1, 2020, are reflected. The annualized increase in the total electric operating labor resulting from the above increases is $14,886,000. Incentive compensation was subtracted from the calculation of the wage increases as the wage increases only apply to base wages.

The test year short-term incentive compensation is reduced by $3,746,000 in Adjustment 2 to eliminate the incentive compensation related to earnings of the Ameren Services Company officers allocated to Ameren Missouri and the Ameren Missouri officers.

Consistent with prior cases, long-term incentive compensation related to Ameren Corporation's financial performance of $8,234,000 applicable to Ameren Missouri, including the allocated Ameren Services Company amount, is eliminated in Adjustment 3. Beginning in 2018, Ameren's long-term incentive compensation plan called for each award to be payable 70% in Performance Share Units that are related to financial performance and 30% payable in Restricted Share Units which are not related to financial performance. Restricted Share Units represent the right to receive stock depending solely on an employee's continued employment with Ameren through a defined vesting period. Restricted Share Unit costs are included in the test year ended December 31, 2018.

Adjustment 4 reflects the decrease in fuel expenses of $65,859,000, for the normalized billed kilowatt-hour ("kWh") sales and output with customer growth through December 2019, reflecting contracted-for fuel prices as of January 1, 2020.

Adjustment 5 is an increase in purchased power expenses of $4,456,000 to reflect the normalized billed kWh sales and output with customer growth through December 2019, and normalized power prices.

The increases and decreases in the fuel cost and the purchased power expenses contained in Adjustments 4 and 5 were calculated by Ms. Berk using the PROSYM production cost model. Her direct testimony details the inputs and assumptions used in the PROSYM model. The purchased power expenses also include the power market and ancillary services charges from MISO.

Adjustment 6 reduces transmission operating expenses by $79,000 to reflect an adjustment ordered by the MPSC in its Report and Order in File No. EO-2011-0128, issued April 19, 2012, and as modified by the Commission's Order Modifying Report and Order issued December 22, 2014. The referenced orders require that the Company make certain adjustments for ratemaking purposes for transmission charges from MISO for regionally-allocated transmission facilities constructed by an Ameren Missouri affiliate in the service territory of Ameren Missouri. Ameren Missouri has received charges for one such project, the Mark Twain Transmission Project, and thus has adjusted its revenue requirement in this case as required by the above-referenced orders for charges received on the project through December 31, 2018. Adjustments will be made in future general rate proceedings for post-December 31, 2018 charges per the above-referenced orders.[1]

Adjustment 7 decreases production expenses by $11,234,000 to reflect the reduced annualized amount of coal refinement costs.

Adjustment 8 increases the nuclear production expenses by $200,000 to record the expected annual radioactive waste disposal expenses.

Adjustment 9 decreases production expenses by $44,239,000, to eliminate the FAC recovery during the test year. Since the Company is re-basing the net base energy costs in its FAC, it is appropriate to eliminate the FAC recovery.

Adjustment 10 is an increase to production expenses to include two-thirds of the average of the last three Callaway Nuclear Plant re-fueling expenses. This adjustment is required because the test year excluded the cost of a Callaway re-fueling outage, which occurs every eighteen months. Therefore, in order to reflect a normal twelve months of operating and maintenance expenses, it is necessary to include two-thirds of the Callaway Plant re-fueling expenses. The production expenses are increased by $15,366,000 for outside contractors' maintenance expenses and $5,533,000 for incremental overtime expenses. This is a total increase of $20,899,000. The impact on replacement power and purchased power is part of the fuel and purchased power adjustment in Adjustments 4 and 5. The inputs for the PROSYM model included two-thirds of a Callaway outage.

[1] For adjustments to be made after the Mark Twain project goes into service, an allowance for funds used during construction ("AFUDC") will be included. AFUDC will account for the fact that this and the other adjustments required by the above-referenced Commission orders will have removed the impact of construction work in progress ("CWIP") from the transmission charges associated with the Mark Twain project, as required by those orders. AFUDC is necessary for customers to be put in the same position they would have been in had Ameren Missouri constructed the project and included it in its rate base.

Adjustment 11 decreases operating expenses by $4,486,000 to eliminate the amortization of the RES regulatory asset and liability balances established in prior cases. Refer to the discussion below regarding Schedule LMM-D13 of the combined effect of over/under-collections of expiring regulatory assets and liabilities. Also included in this adjustment is an amount to establish an amortization for the over-collection of RES costs from January 2017 through December 2019.

Adjustment 12 decreases operating expenses by $7,097,000, to re-base the RES-related expenses, including the Maryland Heights Renewable Energy Center fuel costs.

Adjustment 13 decreases operating expenses by $16,759,000 to eliminate solar rebate costs and amortizations. This amount primarily represents an over-collection of previously tracked costs. Refer to the discussion below regarding Schedule LMM-D13 of the combined effect of over/under-collections of expiring regulatory assets and liabilities.

Adjustment 14 increases operating expenses by $135,000 for the amortization of additional solar rebates that have been paid since the true-up period in the last rate case.

Adjustment 15 decreases operating expenses by $7,000 for a decrease in depreciation that is charged to operating and maintenance ("O&M") expenses for coal cars, transportation, and heavy duty equipment.

Adjustment 16 decreases distribution expenses by $1,625,000, to normalize storm costs to reflect a five-year average.

Adjustment 17 increases distribution expenses by $66,000 to normalize vegetation management and infrastructure inspection costs to reflect a five-year average.

Adjustment 18 is an increase in customer accounting expenses to reflect interest expenses at 6.25% on the average customer deposit balance. The average customer deposit balance at December 31, 2018, is deducted from rate base. The interest expense added to the customer accounting expenses is $1,696,000.

Adjustment 19 increases operating expenses by $12,000 for membership dues expected to be paid prior to December 31, 2019, for the National Regulatory Research Institute.

Adjustment 20 decreases operating expenses by $65,796,000 to eliminate program costs related to MEEIA, which are included in the MEEIA Rider.

Adjustment 21 increases operating expenses by $1,000,000 for costs related to the administration of a pilot program aimed at studying the use of demand charges for residential customers. Ameren Missouri witness Steve Wills further discusses this pilot program in his direct testimony.

Adjustment 22 decreases operating expenses by $42,000 to remove lobbying expenses that were inappropriately classified in the test year.

Adjustment 23 decreases operating expenses by $1,505,000 to reflect the deferral of the license component of cloud computing arrangements incurred in the test year. Such deferrals have been included in rate base as discussed above.

Various administrative and training costs related to energy efficiency were incorrectly recorded as MEEIA program costs. Such costs totaled $337,000 and increase operating expenses, as indicated in Adjustment 24.

The various insurance policies of the Company are renewable at different times during the test year. Adjustment 25 increases the administrative and general expenses by $1,489,000 to annualize the premiums of the various insurance policies.

Adjustment 26 decreases administrative and general expenses by $86,000 to reflect decreases in the major medical and other employee benefits expenses to annualize the calendar year 2019 employee benefits expenses. Decreasing the employee benefits costs to the 2019 annual level matches the pro forma labor expenses adjustment in Adjustment 1.

Adjustment 27 increases operating expenses by $673,000 for the amortization of the software license component of cloud computing arrangements over a five-year period.

Administrative and general expenses are decreased by $125,000 in Adjustment 28 to annualize the calendar year 2019 cost of the non-qualified pension plan, which is no longer included in the pension tracker.

Adjustment 29 decreases administrative and general expenses by $31,837,000 to re-base the pension and OPEB tracker to reflect the annualized calendar year 2019 level of expenses.

Adjustment 30 is a decrease in administrative and general expenses of $3,296,000 to reflect the annualized amortization of the pension and OPEB net regulatory balances, and the estimated net regulatory asset balances at December 31, 2019, the end of the proposed true-up period.

Adjustment 31 decreases operating expenses by $51,000 for the elimination of alcohol purchases during the test year ended December 31, 2018.

Administrative and general expenses are increased in Adjustment 32 by a net amount of $555,000 to reflect the average of rate case expenses incurred by the Company in the last three rate cases with recovery of the costs over three years. Depreciation study expenses will be recovered over five years based on the requirement for a study to be completed every five years.

Adjustment 33 decreases administrative and general expenses by $800,000 to annualize the Ameren Missouri electric Commission assessment.

In Adjustment 34, the Company is eliminating $651,000 of administrative and general expenses for certain Board of Directors meeting expenses and Company chartered flight expenses.

Adjustment 35 decreases operating expenses by $267,000 for the removal of membership costs for the Utility Air Regulatory Group, which was disbanded earlier this year.

Administrative and general expenses are increased in Adjustment 36 by $2,096,000 for incremental rental costs (in excess of test year levels) expected to be incurred by Ameren Services Company and allocated to Ameren Missouri during the true-up period ending December 31, 2019.

Adjustment 37 decreases administrative and general expenses by $1,453,000 for reduced software rental costs expected during the true-up period ending December 31, 2019.

Adjustment 38 increases administrative and general expenses by $40,000 for certain electric costs that were incorrectly allocated to gas operations during the test year ended December 31, 2018.

Q. What is the impact on total electric operating and maintenance expenses from the above pro forma adjustments?

A. As shown in Schedule LMM-D12, the total electric operating and maintenance expenses are decreased from $1,832,359,000 to $1,611,625,000, or a total net decrease of $220,734,000 by the above pro forma adjustments.

Q. What is shown in Schedule LMM-D13?

A. Schedule LMM-D13 shows the total electric depreciation and amortization expenses by functional classifications for the twelve months ended December 31, 2018, per book and pro forma.

Q. What pro forma adjustments apply to the depreciation and amortization expenses?

A. Schedule LMM-D13 details the following pro forma adjustments to the depreciation and amortization expenses:

Adjustment 1 increases depreciation and plant amortization by $66,184,000 to reflect the book depreciation annualized for the plant-in-service depreciable balances at December 31, 2018, and plant additions through the true-up period, based on the depreciation rates approved in File No. ER-2016-0179.

Depreciation and plant amortization expenses are increased by $36,459,000 in Adjustment 2 to reflect the change in depreciation rates reflected in the depreciation study submitted in this case, which was conducted by Company witness John J. Spanos from Gannett Fleming Valuation and Rate Consultants, LLC.

Adjustment 3 increases depreciation and plant amortization by $2,087,000 to eliminate PISA depreciation and amortization deferrals from the test year ended December 31, 2018.

The depreciation expenses for coal cars (Account 312), transportation equipment (Account 392), and heavy duty equipment (Account 396) are not charged to depreciation expense. Adjustment 4 reduces depreciation expenses by $12,178,000 to eliminate the depreciation expenses on these accounts.

Adjustment 5 increases amortization expenses by $910,000, to eliminate a full year's amortization of the construction accounting contra regulatory asset for the Sioux Scrubbers. The Sioux Scrubbers contra regulatory asset is being amortized over the remaining life of the Sioux Energy Center. The contra regulatory asset account is recorded for General Accepted Accounting Principles ("GAAP") purposes.

Amortization expense is increased by $1,283,000 in Adjustment 6 to eliminate the amortization of the 2009 storm cost tracker, which will be fully amortized as of the effective date of rates in this case as agreed to in File No. ER-2016-0179.

As described above the Company has offset regulatory assets and liabilities expected to expire prior to the date new rates become effective related to this general rate review or within approximately one year after. Any over or under-recovery that will exist at May 31, 2020, will be tracked and accumulated. The below table summarizes the related offsets and adjustments proposed by the Company. Refer to Adjustment 19 on the following page for the amortization of the offset or combined effects of these adjustments.

Adjustment Number	Amortization	Expiration	Test year Amortization	Amortization (Over) / Under Recovery at May 31, 2020		
Adjustment 7	Vegetation and Infrastructure 2014	07/31/2019	(257,000)	(214,000)		
Adjustment 7	Vegetation and Infrastructure 2016	03/31/2020	71,000	12,000		
Adjustment 8	Entergy dispute	03/31/2020	(248,000)	(41,000)		
Adjustment 9	Energy efficiency 2008	05/31/2019	(77,000)	(75,000)	(2)	
Adjustment 9	Energy efficiency 2010	(1)	-	172,000	(2)	(3)
Adjustment 9	Energy efficiency 2011	03/31/2021	(453,000)	378,000	(2)	(3)
Adjustment 9	Energy efficiency 2012	06/30/2019	(4,866,000)	(4,653,000)	(2)	(3)
Adjustment 9	Energy efficiency 2014	05/31/2021	(590,000)	590,000	(2)	(3)
Adjustment 12	Over/under amortization 2014	07/31/2019	237,000	198,000		
Adjustment 13	FIN 48 2014	07/31/2019	1,233,000	1,027,000		(3)
Adjustment 13	FIN 48 2016	03/31/2020	(2,281,000)	(380,000)		(3)
		Total	(7,231,000)	(2,986,000)		
(4)	RES 2012	(1)	-	102,000		
(4)	RES 2014	07/31/2019	206,000	172,000		
(4)	RES 2016	03/31/2020	(1,767,000)	(295,000)		
(5)	Solar rebates 2014	07/31/2019	(16,158,000)	(13,465,000)		
(5)	Solar rebates 2016	03/31/2020	(1,246,000)	(208,000)		
		Total	(18,965,000)	(13,694,000)		
		Grand total	(26,196,000)	(16,680,000)		

(1) Amortization of this balance is currently suspended.
(2) This adjustment also increase amortization by $146,000 to eliminate a reduction of the regulatory asset recorded for GAAP purposes.
(3) Historically included in rate base.
(4) The elimination of this amortization from the test year is combined with the effects of other items in Adjustment 11 of Schedule LMM-11.
(5) The elimination of this amortization from the test year is combined with the effects of other items in Adjustment 13 of Schedule LMM-11.

Adjustment 10 decreases amortization expenses by $12,120,000 to eliminate MEEIA program costs that are part of the MEEIA Rider.

Adjustment 11 decreases amortization expenses by $706,000 to eliminate the low income surcharge.

Adjustment 14 decreases amortization by $1,188,000 to eliminate the accumulation of excess deferred taxes tracker amount.

Adjustment 15 increases amortization by $2,259,000 for the amortization of PISA deferrals over a twenty-year period.

Adjustment 16 decreases amortization by $688,000 for the amortization of accumulated over-collections associated with the excess deferred tax tracker.

Adjustment 17 increases amortization by $2,686,000 to reflect the deferral of settlement costs associated with a dispute over gross receipts taxes and recovery of such costs over a five-year period.

Ameren Missouri was ordered to record a regulatory liability in an amount equal to the income taxes saved from January 2018 to July 2018 associated with the reduction in the corporate federal tax rate. Adjustment 18 reduces amortization expenses by $11,947,000 to reflect the amortization of related tax savings over a five-year period.

Adjustment 19 decreases amortizations by $5,560,000 to amortize expected over-recoveries at May 31, 2020, of $16,680,000 that are associated with expiring amortizations. The Company proposes an amortization period of three years for these over-collections.

Q. What are the total electric pro forma depreciation and amortization expenses?

A. As reported in Schedule LMM-D13, the total electric pro forma depreciation and amortization expenses are $610,101,000.

Q. Please explain Schedule LMM-D14.

A. Schedule LMM-D14 shows the taxes other than income taxes for the twelve months ended December 31, 2018, per book and pro forma.

Q. Please list the pro forma adjustments required to arrive at the total electric pro forma taxes other than income taxes as detailed in Schedule LMM-D14.

A. The following pro forma adjustments detailed in Schedule LMM-D14 are required to arrive at the total electric pro forma taxes other than income taxes.

Adjustment 1 increases F.I.C.A. taxes by $565,000 to reflect the pro forma wage adjustments.

Adjustment 2 increases property taxes by the estimated increase in property taxes as of December 31, 2019, in the amount of $14,136,000 using the investment in plant at January 1, 2019.

Property taxes of $419,000 applicable to plant held for future use are eliminated in Adjustment 3. This adjustment is required as the investment in plant held for future use is not included in rate base.

Adjustment 4 adjusts taxes other than income taxes to remove Missouri gross receipts taxes of $157,139,000, as they are add-on taxes that are directly passed through to customers. The pro forma book revenues also reflect the removal of the add-on revenue taxes.

Q. How much are pro forma taxes other than income taxes for the twelve months ended December 31, 2018, for total electric?

A. As reflected in Schedule LMM-D14, the pro forma total electric taxes other than income taxes are $169,425,000.

Q. What is shown in Schedule LMM-D15?

A. Schedule LMM-D15 shows the derivation of the income tax calculation at the requested 7.359% rate of return for total electric operations reflecting the statutory tax rates. (See the direct testimony of Company witness Darryl T. Sagel for the development of the 7.359% rate of return.)

Q. As shown in Schedule LMM-D15, what are the income taxes at the requested rate of return for total electric operations?

A. Total current federal, state, and city earnings income taxes using the statutory tax rates at the requested rate of return are $114,068,000 for total electric operations, as shown in Schedule LMM-D15. Deferred income taxes for total electric operations of ($61,507,000) are also shown in Schedule LMM-D15. Net current and deferred income taxes for electric operations are $52,561,000.

Q. Please explain Schedule LMM-D16.

A. Schedule LMM-D16 shows the total electric rate base of $7,977,972,000, and the total electric revenue requirement of $3,030,811,000 at the requested return of 7.359%.

Q. Will the 7.359% requested return be trued up?

A. Yes. The Company refinanced a portion of its outstanding debt at lower interest rates in June of 2019, but the re-finance occurred at a point in time such that we were unable to include its impact in the final revenue requirement in this case. The impact of the re-financing on the Company's overall return will be reflected as part of the true-up.

Q. What does Schedule LMM-D17 reflect?

A. Schedule LMM-D17 compares the total electric revenue requirement of $3,030,811,000 with the total electric pro forma operating revenues under the present rates of $3,031,585,000, including off-system energy sales revenues. It shows that the revenue requirement for the test year is $774,000 less than the pro forma operating revenues at present rates. The $3,030,811,000 is the amount of revenues used to set the rates filed in this case and is the level of revenues needed to provide Ameren Missouri an opportunity to collect and recover its cost of service, including an opportunity to recover its cost of capital.

III. DETERMINATION OF NET BASE ENERGY COSTS

Q. Did you determine the "net base energy costs" utilized in the Company's FAC, as addressed in the direct testimony of Ameren Missouri witness Marci L. Althoff?

A. Yes. I calculated the net base energy costs and the seasonal values for Factor BF in Rider FAC for both the summer and winter, which are 1.266 cents per kilowatt-hour for the summer and 1.208 cents per kilowatt-hour for the winter. Schedule LMM-D18 shows the calculation of total net base energy costs, and the calculation of the Factor BF values for the summer and winter periods. The net base energy costs calculation starts with the fuel and purchased power costs determined by PROSYM, as discussed in Ms. Berk's direct testimony. There are other costs for fuel and purchased power that are not modeled by PROSYM, including net fly ash revenues and expenses, fixed gas supply costs, fuel additives, MISO Day 2 expenses, capacity expenses, PJM expenses, replacement power insurance costs, Account 565 transmission expenses, the costs of purchasing ancillary services, and the cost of purchased power to serve common boundary customers. This total cost of fuel and purchased power is then offset or reduced by off-system energy sales revenues calculated via PROSYM, using inputs provided by Mr. Meyer. There are additional revenues not included in PROSYM, including the MISO Day 2 revenues, capacity sales, bilateral swaps, financial swaps, real-time load and generation deviation, and revenues from sales of ancillary services. All of the above expenses and revenues are then segregated between the summer and winter periods to develop two separate values under Rider FAC. Per Schedule LMM-D18, the summer net base energy cost of $155,078,000 was then divided by the normalized Ameren Missouri summer load at the MISO Node AMMO.UE of 12,251,000,000 kWhs to arrive at a summer value expressed in cents per kWh of 1.266 cents. The winter net base energy cost of $261,000,000 was then divided by the normalized Ameren Missouri winter load at the MISO Node AMMO.UE of 21,687,600,000 kWhs to arrive at a winter value expressed in cents per kWh of 1.208 cents.

IV. CONCLUSION

Q. Please summarize your testimony and conclusions.

A. My testimony and attached schedules have developed the Company's total electric rate base and revenue requirement, which include continuation of four existing trackers, the pension and OPEB expense tracker, the RES tracker, FIN 48 tracker, and an excess deferred tax amortization tracker, as well as amortization of existing regulatory assets and liabilities. As addressed in Mr. Wills' direct testimony, the Company is requesting implementation of a tracker for a pilot program involving demand charges for residential customers. As summarized in Schedule LMM-D17, the Company's total electric revenue requirement, including the Company's proposed 7.359% return on rate base, is less than the pro forma operating revenues at the present rates by $774,000. Rates should be designed to decrease revenues by $774,000, subject to the true-up in this case. Finally, the seasonal values for Factor BF in Rider FAC should be set at the values reflected in Schedule LMM-D18, reflecting a re-base of net base energy costs.

Q. Does this conclude your direct testimony?

A. Yes, it does.

AMEREN MISSOURI
ORIGINAL COST OF ELECTRIC PLANT
BY FUNCTIONAL CLASSIFICATION FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	FUNCTIONAL CLASSIFICATION (A)	TOTALS PER BOOKS (B)	PRO FORMA ADJUSTMENTS (C)	PRO FORMA ELECTRIC TOTALS (D)
	INTANGIBLE PLANT			
1	FRANCHISES	$ 78,132	$ -	$ 78,132
2	CALLAWAY LIFE EXTENSION DEFERRAL	2,812	-	2,812
3	CLOUD COMPUTING ASSET	-	3,363	3,363
4	MISC INTANGIBLE PLANT	219,934	104,639	324,573
5	**TOTAL INTANGIBLE PLANT**	300,878	108,002	408,880
	PRODUCTION PLANT			
6	NUCLEAR	3,336,212	42,086	3,378,298
7	CALLAWAY POST OPERATIONAL	116,731	-	116,731
8	STEAM	4,714,824	73,124	4,787,948
9	HYDRAULIC	520,776	48,736	569,512
10	OTHER	1,263,470	20,515	1,283,985
11	**TOTAL PRODUCTION PLANT**	9,952,013	184,461	10,136,474
12	**TRANSMISSION PLANT**	1,277,058	113,002	1,390,060
13	**DISTRIBUTION PLANT**	5,989,100	355,341	6,344,441
14	**GENERAL PLANT**	663,225	75,064	738,289
15	**INCENTIVE COMPENSATION CAPITALIZED**	-	(30,846)	(30,846)
16	**TOTAL PLANT IN SERVICE**	$ 18,182,274	$ 805,024	$ 18,987,298

LINE	PRO FORMA ADJUSTMENTS		
17	(1) Eliminate Plant balances related to FAS 143 Asset Retirement Obligation		
18	NUCLEAR	$ (63,516)	
19	STEAM	(103,216)	
20	DISTRIBUTION	-	
21	GENERAL	(2,552)	
22	TOTAL		$ (169,284)
23	(2) Plant Additions for the true-up period		
24	INTANGIBLE FRANCHISES	-	
25	OTHER INTANGIBLE PLANT	114,037	
26	NUCLEAR	105,602	
27	STEAM	176,340	
28	HYDRAULIC	48,736	
29	OTHER	20,515	
30	TRANSMISSION	113,002	
31	DISTRIBUTION	355,341	
32	GENERAL	88,395	
33	TOTAL		1,021,968
34	(3) Capitalize Cloud Computing Costs		3,363
35	(4) Eliminate portions of plant in service for multi use general assets which are applicable to gas		
36	operations. For convenience, such assets are recorded as electric plant but are commonly used for		
37	both electric and gas.		
38	GENERAL		(20,177)
39	(5) Reduce Plant-in-Service for disallowed capital incentive compensation		
40	GENERAL		(30,846)
41	**TOTAL PRO FORMA ADJUSTMENTS**		$ 805,024

Resolution Encouraging State Utility Commissions to Consider Improving the Regulatory Treatment of Cloud Computing Arrangements

WHEREAS, The business of electric, gas, and water utilities is changing rapidly. Utilities are now faced with how best to respond to modern customer expectations, technological innovation, and new regulatory drivers; *and*

WHEREAS, To thrive in the future, utilities may need to modernize and transform their business operations. A key element of this may be access to state-of-the-art commercial cloud computing services, which is increasingly delivered via a "cloud-based" or "software-as-a-service" model; *and*

WHEREAS, The various functionalities provided by commercial cloud computing services may help utilities fully realize the economic, social, and environmental value of the smart gas and electric grid; *and*

WHEREAS, Other highly regulated industries like financial services, healthcare, telecommunications, and auto insurance use commercial cloud computing services and are delivering a superior customer experience. These industries now outperform utilities in customer satisfaction rankings, according to surveys from J.D. Power and Associates; *and*

WHEREAS, Federal government agencies, including the Departments of Treasury, State, and Defense, are rapidly transitioning to commercial cloud computing services and cloud-based solutions through a federal requirement to "evaluate safe, secure cloud computing options before making any new IT investments"; *and*

WHEREAS, In addition to enhanced security, commercial cloud computing services can provide increased reliability and flexibility. In contrast to on-premise solutions, cloud-based solutions can be frequently and easily updated with minimal business disruptions, allowing utilities to keep pace with innovation and changing technology; *and*

WHEREAS, Commercial cloud computing services and traditional on-premise software have different business models and payment streams. Purchasing cloud computing services typically involves periodic payments for the services consumed, while purchasing on-premise software typically involves a large up-front payment and a regular maintenance fee; *and*

WHEREAS, Under current guidelines, a utility may classify investments in legacy hardware and supporting on-premise software as a capital expense, on which it can receive a rate of return; however, if a utility invests in cloud-based technologies, it typically treats the investment as an operating expense, on which it does not receive a rate of return; *and*

WHEREAS, The disparity in accounting treatments between these two software approaches creates a regulatory incentive for utilities to invest in on-premise software solutions and creates unintended financial hurdles that hinder utilities from realizing the benefits that so many other industries are experiencing with cloud-based software; *and*

WHEREAS, Utilities should be free to make software investments based on which option best meets both the needs of the utility and its customers, rather than how the investment will be treated for accounting purposes; *and*

WHEREAS, The existing regulatory accounting rules may be interpreted, if appropriate, to allow for utilities to capitalize cloud-based software; *and*

WHEREAS, Regardless of how cloud computing is treated for regulatory accounting purposes, regulators will still examine whether the investment is prudent; *now, therefore be it*

RESOLVED, That the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC), convened at its 2016 Annual Meetings in La Quinta, California, recognizes that utilities best serve customers, society, the environment, and the grid by making software procurement decisions regardless of the delivery method or payment model; *and be it further*

RESOLVED, That NARUC encourages State regulators to consider whether cloud computing and on-premise solutions should receive similar regulatory accounting treatment, in that both would be eligible to earn a rate of return and would be paid for out of a utility's capital budget.

Sponsored by the Committees on Critical Infrastructure, Gas, and Water
Recommended by the NARUC Board of Directors on November 15, 2016
Adopted by the NARUC Committee of the Whole on November 16, 2016

AMEREN MISSOURI
TOTAL ELECTRIC RESERVES FOR DEPRECIATION AND AMORTIZATION
BY FUNCTIONAL CLASSIFICATION FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	FUNCTIONAL CLASSIFICATION (A)	TOTALS PER BOOKS (B)	PRO FORMA ADJUSTMENTS (C)	PRO FORMA ELECTRIC TOTALS (D)
	INTANGIBLE PLANT			
1	FRANCHISES	$ 18,803	$ 3,289	$ 22,092
2	CALLAWAY LIFE EXTENSION DEFERRAL	152	87	239
3	CLOUD COMPUTING ASSET	-	-	-
4	MISC INTANGIBLE PLANT	124,827	27,855	152,682
5	**TOTAL INTANGIBLE PLANT**	143,782	31,231	175,013
	PRODUCTION PLANT			
6	NUCLEAR	1,583,647	94,722	1,678,369
7	CALLAWAY POST OPERATIONAL	95,221	3,687	98,908
8	STEAM	2,038,096	103,056	2,141,152
9	HYDRAULIC	112,047	11,960	124,007
10	OTHER	673,107	28,449	701,556
11	**TOTAL PRODUCTION PLANT**	4,502,118	241,874	4,743,992
12	**TRANSMISSION PLANT**	378,792	33,929	412,721
13	**DISTRIBUTION PLANT**	2,828,089	182,714	3,010,803
14	**GENERAL PLANT**	227,898	36,070	263,968
15	**INCENTIVE COMPENSATION CAPITALIZED**	-	(10,728)	(10,728)
16	**TOTAL DEPRC. & AMORT RESERVE**	$ 8,080,679	$ 515,090	$ 8,595,769
	PRO FORMA ADJUSTMENTS			
17	(1) Eliminate Reserve balances related to FAS 143 Asset Retirement Obligation			
18	NUCLEAR		$ 19,806	
19	STEAM		(53,715)	
20	DISTRIBUTION		-	
21	GENERAL		(576)	
22	TOTAL			$ (34,485)
23	(2) Reserve Balance at December 31, 2018 adjusted to reflect Reserve Balance at			
24	December 31, 2019.			
25	INTANGIBLE FRANCHISES		3,289	
26	CALLAWAY LIFE EXTENSION DEFERRAL		87	
27	MISC INTANGIBLE PLANT		22,309	
28	NUCLEAR		73,591	
29	CALLAWAY POST OPERATIONAL		3,687	
30	STEAM		154,464	
31	HYDRAULIC		11,531	
32	OTHER		28,153	
33	TRANSMISSION		32,622	
34	DISTRIBUTION		178,003	
35	GENERAL		38,326	
36	TOTAL			546,062
37	(3) Adjustment to depreciation reserve for the additions to plant in service for the true-			
38	up period of January 1, 2019 through December 31, 2019.			
39	INTANGIBLE FRANCHISES		-	
40	MISC INTANGIBLE PLANT		9,752	
41	NUCLEAR		1,325	
42	STEAM		2,307	
43	HYDRAULIC		429	
44	OTHER		296	
45	TRANSMISSION		1,307	
46	DISTRIBUTION		4,711	
47	GENERAL		1,987	
48	TOTAL			22,114
49	(4) Eliminate portions of plant in service for multi use general assets which are			
50	applicable to gas operations. For convenience, such assets are recorded as			
51	electric plant but are commonly used for both electric and gas			
52	GENERAL			(7,873)
53	(5) Reserve Balance adjustment for disallowed Incentive Compensation capitalize			
54	GENERAL			(10,728)
55	**TOTAL PRO FORMA ADJUSTMENTS**			$ 515,090

SCHEDULE LMM-D3

AMEREN MISSOURI
AVERAGE FUEL AND MATERIALS & SUPPLIES INVENTORIES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	TOTALS PER BOOKS (B)	PRO FORMA ADJUSTMENTS (C)	PRO FORMA ELECTRIC TOTALS (D)
1	AVERAGE NUCLEAR FUEL	$ 150,090	$ -	$ 150,090
	AVERAGE FOSSIL FUEL:			
2	COAL	133,837	(9,998)	123,839
3	OIL	3,536	-	3,536
4	STORED GAS FOR CTG'S	1,473	-	1,473
5	TOTAL FOSSIL FUEL	138,846	(9,998)	128,848
6	EMISSION ALLOWANCES AND RECS	7,427	-	7,427
7	GENERAL MATERIALS AND SUPPLIES	222,819	(1,627)	221,192
8	TOTAL	$ 519,182	$ (11,625)	$ 507,557

LINE	PRO FORMA ADJUSTMENT	
9	(1) Adjust Coal Supply to reflect 13 month average inventory at inventory policy levels priced at the January 2020 coal prices.	$ (9,998)
10 11	(2) Eliminate portions of average fuel and general materials and supplies which are applicable to gas operations.	(1,627)
12	TOTAL PRO FORMA ADJUSTMENTS	$ (11,625)

AMEREN MISSOURI
AVERAGE PREPAYMENTS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	TOTALS PER BOOKS(1) (B)	PRO FORMA ADJUSTMENTS (C)	PRO FORMA ELECTRIC TOTALS (D)
1	RENTS (2)	$ 9	$ -	$ 9
2	INSURANCE - DIRECT (2)	9,138	(579)	8,559
3	REG. COMMISSION ASSESSMENTS (3)	-	-	-
4	COAL CAR LEASE (2)	-	-	-
5	M/A COMM RADIO SYS SRVC AGREEMENT (3)	30	(1)	29
6	MEDICAL AND DENTAL VEBA (3)	4,266	(84)	4,182
7	IMAGING SOFTWARE (2)	61	-	61
8	FUELWORKS SOFTWARE (2)	-	-	-
9	ARBOR NEWSTAR SERVICE FEE (3)	-	-	-
10	OPTIV GIGAMON (3)	32	(1)	31
11	MICROSOFT ENTERPRISE APPLICATIONS (3)	-	-	-
12	SECUREWORKS APPLICATIONS (2)	-	-	-
13	ABB POWER CARE (2)	188	-	188
14	NSR & OPACITY LITIGATION (2)	1,029	-	1,029
15	ENERGY EFFICENCY PROGRAM VENDORS (2)	110	(110)	-
16	**TOTAL AVERAGE PREPAYMENTS**	**$ 14,863**	**$ (775)**	**$ 14,088**

17 (1) Reflects 13 month average

18 (2) Directly assigned to electric or gas.

13 (3) Allocated to gas based on operating expenses excluding fuel and purchased power.

PRO FORMA ADJUSTMENT

14	(1) Eliminate portions of prepayments which are applicable to gas operations. Allocated between electric	$ (775)
15	and gas operations based on operating expenses excluding purchased power, off-system sales and	
16	purchased gas.	

AMEREN MISSOURI
TOTAL ELECTRIC CASH WORKING CAPITAL
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	REVENUE LAG (B)	EXPENSE LEAD (1) (C)	NET LEAD/LAG (D)	FACTOR (E)	TEST YEAR EXPENSE (F)	CASH WORKING CAPITAL REQUIREMENT (G)
1	PAYROLL & WITHHOLDINGS	37.330	(10.310)	27.020	0.074027	$ 325,587	$ 24,102
2	PENSIONS AND BENEFITS	37.330	(13.450)	23.880	0.065425	29,644	1,939
3	FUEL						
4	NUCLEAR	37.330	(15.210)	22.120	0.060603	80,655	4,888
5	COAL	37.330	(17.410)	19.920	0.054575	552,427	30,149
6	NATURAL GAS	37.330	(38.920)	(1.590)	(0.004356)	13,638	(59)
7	OIL	37.330	(12.740)	24.590	0.067370	3,404	229
8	PURCHASED POWER	37.330	(24.930)	12.400	0.033973	61,841	2,101
9	INCENTIVE COMPENSATION	37.330	(251.690)	(214.360)	(0.587288)	27,812	(16,334)
10	UNCOLLECTIBLE ACCOUNTS	37.330	(37.360)	(0.030)	(0.000082)	8,528	(1)
11	OTHER OPERATING EXPENSES	37.330	(37.150)	0.180	0.000493	508,090	250
12	TOTAL O&M EXPENSES					1,611,625	
13	**TOTAL CASH WORKING CAPITAL REQUIREMENT**						**47,264**
14	FICA - EMPLOYER'S PORTION	37.330	(9.530)	27.800	0.076164	20,706	1,577
15	ST. LOUIS PAYROLL EXPENSE TAXES	37.330	(9.530)	27.800	0.076164	453	35
16	FEDERAL UNEMPLOYMENT TAXES	37.330	(9.530)	27.800	0.076164	170	13
17	STATE UNEMPLOYMENT TAXES	37.330	(9.530)	27.800	0.076164	-	-
18	CORPORATE FRANCHISE TAXES	37.330	181.500	218.830	0.599534	95	57
19	PROPERTY TAXES	37.330	(182.500)	(145.170)	(0.397726)	147,369	(58,612)
20	DECOMMISSIONING FEES	37.330	(70.630)	(33.300)	(0.091233)	6,758	(617)
21	SALES TAXES	37.330	(10.500)	26.830	0.073507	80,704	5,932
22	USE TAXES	37.330	(76.140)	(38.810)	(0.106329)	2,189	(233)
23	FED EXCISE HEAVY USE TAX	37.330	114.190	151.520	0.415123	19	8
24	SELF PROCURED INS TAX	37.330	(273.500)	(236.170)	(0.647041)	613	(397)
25	OHIO COMMERCIAL ACTIVITY TAX	37.330	(83.000)	(45.670)	(0.125123)	1	-
26	GROSS RECEIPTS TAXES	23.580	(26.920)	(3.340)	(0.009151)	157,139	(1,438)
27	TOTAL TAXES AND OTHER EXPENSES					416,216	
28	**NET CUSTOMER SUPPLIED FUNDS**						**$ (53,675)**
29	**NET CASH WORKING CAPITAL REQUIREMENT**						**$ (6,411)**

AMEREN MISSOURI
TOTAL ELECTRIC FEDERAL AND STATE INCOME TAX AND CITY EARNINGS TAX CASH REQUIREMENTS
AND INTEREST EXPENSE CASH REQUIREMENT
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	REVENUE LAG (B)	EXPENSE LEAD (1) (C)	NET LEAD/LAG (D)	FACTOR (E)	TEST YEAR EXPENSE (F)	CASH WORKING CAPITAL REQUIREMENT (G)
1	FEDERAL INCOME TAX CASH REQUIREMENT	37.330	(37.880)	(0.550)	(0.001507)	$ 96,303	$ (145)
2	STATE INCOME TAX CASH REQUIREMENT	37.330	(37.880)	(0.550)	(0.001507)	$ 17,341	$ (26)
3	CITY EARNINGS TAX CASH REQUIREMENT	37.330	(273.500)	(236.170)	(0.647041)	$ 424	$ (274)
4	INTEREST EXPENSE CASH REQUIREMENT	37.330	(89.480)	(52.150)	(0.142877)	$ 171,766	$ (24,541)

AMEREN MISSOURI
TOTAL ELECTRIC AVERAGE CUSTOMER ADVANCES FOR CONSTRUCTION AND
AVERAGE CUSTOMER DEPOSITS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	TOTAL ELECTRIC (B)
1	AVERAGE CUSTOMER ADVANCES FOR CONSTRUCTION	$ (7,405)
2	AVERAGE CUSTOMER DEPOSITS	$ (27,131)

AMEREN MISSOURI
OTHER REGULATORY ASSETS
AND REGULATORY LIABILITIES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	TOTAL ELECTRIC (B)(1)
1	PENSIONS	$ (40,127)
2	OTHER POST-EMPLOYMENT BENEFITS	$ (6,975)
3	ENERGY EFFICIENCY	$ -
4	FIN 48 LIABILITY TRACKER	$ -
5	PISA REGULATORY ASSET	$ 45,180
6	UNDER COLLECTED AMORTIZATIONS IN RATE BASE	$ 33

7 (1) A positive balance is a Regulatory Asset and a negative balance is a
8 Regulatory Liability.

AMEREN MISSOURI
ACCUMULATED DEFERRED INCOME TAXES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	TOTAL ELECTRIC PER BOOKS (B)	PRO FORMA ADJUSTMENTS (C)	PRO FORMA ELECTRIC TOTAL (D)
1	ACCOUNT 190	$ 38,360	$ (3,932)	$ 34,428
2	ACCOUNT 281	(103,328)	(1,512)	(104,840)
3	ACCOUNT 282	(2,794,779)	41,456	(2,753,323)
4	ACCOUNT 283	(35,977)	(7,668)	(43,645)
5	**TOTAL ACCUMULATED DEFERRED INCOME TAXES**	**$ (2,895,724)**	**$ 28,344**	**$ (2,867,380)**

PRO FORMA ADJUSTMENT:

6 Changes in balances from December 31, 2018 to December 31, 2019, which is the end of the true-up period.

AMEREN MISSOURI
TOTAL ELECTRIC PER BOOK AND PRO FORMA OPERATING REVENUES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE		DESCRIPTION (A)	TOTAL ELECTRIC (B)	PRO FORMA ADJUSTMENTS (C)	ADJUSTED TOTAL ELECTRIC (D)
		OPERATING REVENUES			
1		RETAIL REVENUES	$ 3,159,787	$ (538,546)	2,621,241
2		PROVISION FOR RATE REFUNDS	(89,621)	89,621	-
3		OTHER ELECTRIC REVENUES	97,485	1,341	98,826
4		**TOTAL REVENUES**	**3,167,651**	**(447,584)**	**2,720,067**
5		DISPOSITION OF ALLOWANCES	(1)	1	-
6		OFF-SYSTEM SALES - ENERGY	250,789	38,156	288,945
7		OFF-SYSTEM SALES-CAPACITY REVENUE	27,015	(4,442)	22,573
8		**TOTAL REVENUES PER BOOKS**	**$ 3,445,454**	**$ (413,869)**	**$ 3,031,585**
		PRO FORMA ADJUSTMENTS:			
9	(1)	REMOVE ADD ON REVENUE TAX	(156,929)		
10	(2)	ELIMINATE REVENUE FROM MEEIA RECOVERIES	(114,500)		
11	(3)	ELIMINATE REVENUE FROM FAC RECOVERIES	(45,258)		
12	(4)	ELIMINATE UNBILLED REVENUE	7,520		
13	(5)	ANNUALIZE 2018 RATE CHANGE	(115,711)		
14	(6)	ADJUST FOR GROWTH THROUGH DECEMBER 2018	4,772		
15	(7)	ADJUST FOR GROWTH THROUGH TRUE-UP	7,507		
16	(8)	ADJUST FOR ENERGY EFFICIENCY	(15,437)		
17	(9)	DAYS ADJUSTMENT	(8,515)		
18	(10)	ADJUST FOR BILLING UNITS	3,069		
19	(11)	ADJUST FOR NORMAL WEATHER	(105,064)		
20		TOTAL		(538,546)	
21	(12)	ELIMINATE PROVISION FOR RATE REFUNDS		89,621	
22	(13)	ADJUST TRANSMISSION REVENUES	(1,443)		
23	(14)	MISC REVENUE FROM COAL REFINEMENT	11		
24	(15)	MISC LEASE REVENUE FROM RENT REVENUE	4,463		
25	(16)	MISC LEASE REVENUE FROM SOFTWARE LEASES	(1,690)		
26		TOTAL		1,341	
27	(17)	ELIMINATE DISPOSITION OF ALLOWANCES		1	
28	(18)	ADJUST OFF-SYSTEM SALES - ENERGY		38,156	
29	(19)	ADJUST OFF-SYSTEM SALES - CAPACITY		(4,442)	
30		**TOTAL PRO FORMA ADJUSTMENTS**		$ (413,869)	

AMEREN MISSOURI
ELECTRIC OPERATING AND MAINTENANCE EXPENSES
PER BOOK AND PRO FORMA
FOR THE TWELVE MONTHS ENDED MARCH 31, 2016 UPDATED THROUGH DECEMBER 31, 2016
($000)

LINE	FUNCTIONAL CLASSIFICATION (A)	TOTAL PER BOOKS (B)	#1 LABOR ADJUSTMENT (C)	#2 INCENTIVE COMPENSATION ADJUSTMENT (D)	#3 LONG TERM INCENTIVE COMPENSATION ADJUSTMENT (E)	#4 DECREASE FUEL EXPENSE FOR DEC CHANGE (F)	#5 ADJUST PURCHASED POWER FOR DEC CHANGE (G)	#6 MARK TWAIN TRANSMISSION ADJUSTMENT (H)	#7 COAL REFINEMENT ADJUSTMENT (I)
	PRODUCTION:								
	INCREMENTAL COSTS:								
1	LABOR	$ 194,177	$ 8,498	$ (2,108)	$ (2,216)	$ -	$ -	$ -	$ -
	FUEL (EXCL. W/H CR.)								
2	BASE LOAD	545,699	-	-	-	110,840	-	-	-
3	INTERCHANGE	176,975	-	-	-	(176,975)	-	-	-
4	FUEL ADDITIVES	7,985	-	-	-	276	-	-	-
	PURCHASED POWER								
	ENERGY								
5	BASE LOAD	52,277	-	-	-	-	(4,014)	-	-
6	INTERCHANGE	2,278	-	-	-	-	(2,278)	-	-
	CAPACITY COSTS								
7	BASE LOAD	18,248	-	-	-	-	(4,671)	-	-
8	INTERCHANGE	-	-	-	-	-	-	-	-
9	OTHER	179,137	-	-	-	-	-	-	(11,234)
10	TOTAL PRODUCTION EXPENSES	1,176,776	8,498	(2,108)	(2,216)	(65,859)	(10,963)	-	(11,234)
	TRANSMISSION EXPENSES:								
11	LABOR	7,823	344	(85)	(358)	-	-	-	-
12	OTHER	90,038	-	-	-	-	15,419	(79)	-
13	TOTAL TRANSMISSION EXPENSES	97,861	344	(85)	(358)	-	15,419	(79)	-
	REGIONAL MARKET EXPENSES:								
14	LABOR	-	-	-	-	-	-	-	-
15	OTHER	7,833	-	-	-	-	-	-	-
16	TOTAL REGIONAL MARKET EXPENSES	7,833	-	-	-	-	-	-	-
	DISTRIBUTION EXPENSES:								
17	LABOR	63,992	2,687	(695)	(670)	-	-	-	-
18	OTHER	92,848	-	-	-	-	-	-	-
19	TOTAL DISTRIBUTION EXPENSES	156,840	2,687	(695)	(670)	-	-	-	-
	CUSTOMER ACCOUNTING EXPENSES:								
20	LABOR	14,295	537	(155)	(113)	-	-	-	-
21	OTHER	39,275	-	-	-	-	-	-	-
22	TOTAL CUSTOMER ACCOUNTING EXPENSES	53,570	537	(155)	(113)	-	-	-	-
	CUSTOMER SERV. & INFO. EXPENSES:								
23	LABOR	9,143	438	(99)	(304)	-	-	-	-
24	OTHER	94,867	-	-	-	-	-	-	-
25	TOTAL CUSTOMER SERV. & INFO. EXPENSES	104,010	438	(99)	(304)	-	-	-	-
	SALES EXPENSES:								
26	LABOR	417	25	(5)	-	-	-	-	-
27	OTHER	40	-	-	-	-	-	-	-
28	TOTAL SALES EXPENSES	457	25	(5)	-	-	-	-	-
	ADMINISTRATIVE & GENERAL EXPENSES:								
29	LABOR	55,146	2,357	(599)	(4,573)	-	-	-	-
30	OTHER	179,866	-	-	-	-	-	-	-
31	**TOTAL ADMINISTRATIVE & GENERAL EXPENSES**	235,012	2,357	(599)	(4,573)	-	-	-	-
32	**TOTAL OPERATIONS & MAINTENANCE EXPENSES**	$ 1,832,359	$ 14,886	$ (3,746)	$ (8,234)	$ (65,859)	$ 4,456	$ (79)	$ (11,234)

33 **NOTE:** See SCHEDULE LMM-12-6 for explanation of the pro forma adjustments.

SCHEDULE LMM-D-12-1

AMEREN MISSOURI
ELECTRIC OPERATING AND MAINTENANCE EXPENSES
PER BOOK AND PRO FORMA
FOR THE TWELVE MONTHS ENDED MARCH 31, 2016 UPDATED THROUGH DECEMBER 31, 2016
($000)

LINE	FUNCTIONAL CLASSIFICATION (A)	#8 ANNUAL RAD WASTE DISPOSAL (B)	#9 ELIMINATE FAC RECOVERY (C)	#10 CALLAWAY REFUELING EXPENSES (D)	#11 OTHER RES AMORT ADJUSTMENT (E)	#12 REBASE RES EXPENSE (F)	#13 ELIMINATE SOLAR AMOUNTS (G)	#14 SOLAR REBATE AMORTIZATION (H)	#15 DEPRECIATION TO O&M ADJUSTMENT (I)	#16 NORMALIZE STORM COSTS (J)
	PRODUCTION:									
	INCREMENTAL COSTS:									
1	LABOR	$ -	$ -	$ 5,533	$ -	$ -	$ -	$ -	$ -	$ -
	FUEL (EXCL. W/H CR.)									
2	BASE LOAD	-	-	-	-	-	-	-	-	-
3	INTERCHANGE	-	-	-	-	-	-	-	-	-
4	FUEL ADDITIVES	-	-	-	-	-	-	-	-	-
	PURCHASED POWER									
	ENERGY									
5	BASE LOAD	-	-	-	-	-	-	-	-	-
6	INTERCHANGE	-	-	-	-	-	-	-	-	-
	CAPACITY COSTS				-	-	-	-	-	-
7	BASE LOAD	-	-	-	-	-	-	-	-	-
8	INTERCHANGE	-	-	-	-	-	-	-	-	-
9	OTHER	200	(44,239)	15,366	(4,486)	(7,097)	-	-	(235)	-
10	TOTAL PRODUCTION EXPENSES	200	(44,239)	20,899	(4,486)	(7,097)	-	-	(235)	-
	TRANSMISSION EXPENSES:									
11	LABOR	-	-	-	-	-	-	-	-	-
12	OTHER	-	-	-	-	-	-	-	-	-
13	TOTAL TRANSMISSION EXPENSES	-	-	-	-	-	-	-	-	-
	REGIONAL MARKET EXPENSES:									
14	LABOR	-	-	-	-	-	-	-	-	-
15	OTHER	-	-	-	-	-	-	-	-	-
16	TOTAL REGIONAL MARKET EXPENSES	-	-	-	-	-	-	-	-	-
	DISTRIBUTION EXPENSES:									
17	LABOR	-	-	-	-	-	-	-	-	-
18	OTHER	-	-	-	-	-	-	-	228	(1,625)
19	TOTAL DISTRIBUTION EXPENSES	-	-	-	-	-	-	-	228	(1,625)
	CUSTOMER ACCOUNTING EXPENSES:									
20	LABOR	-	-	-	-	-	-	-	-	-
21	OTHER	-	-	-	-	-	-	-	-	-
22	TOTAL CUSTOMER ACCOUNTING EXPENSES	-	-	-	-	-	-	-	-	-
	CUSTOMER SERV. & INFO. EXPENSES:									
23	LABOR	-	-	-	-	-	-	-	-	-
24	OTHER	-	-	-	-	-	(16,759)	135	-	-
25	TOTAL CUSTOMER SERV. & INFO. EXPENSES	-	-	-	-	-	(16,759)	135	-	-
	SALES EXPENSES:									
26	LABOR	-	-	-	-	-	-	-	-	-
27	OTHER	-	-	-	-	-	-	-	-	-
28	TOTAL SALES EXPENSES	-	-	-	-	-	-	-	-	-
	ADMINISTRATIVE & GENERAL EXPENSES:									
29	LABOR	-	-	-	-	-	-	-	-	-
30	OTHER	-	-	-	-	-	-	-	-	-
31	**TOTAL ADMINISTRATIVE & GENERAL EXPENSES**	-	-	-	-	-	-	-	-	-
32	**TOTAL OPERATIONS & MAINTENANCE EXPENSES**	$ 200	$ (44,239)	$ 20,899	$ (4,486)	$ (7,097)	$ (16,759)	$ 135	$ (7)	$ (1,625)

33 **NOTE:** See SCHEDULE LMM-12-6 for explanation of the pro forma adjustments.

AMEREN MISSOURI
ELECTRIC OPERATING AND MAINTENANCE EXPENSES
PER BOOK AND PRO FORMA
FOR THE TWELVE MONTHS ENDED MARCH 31, 2016 UPDATED THROUGH DECEMBER 31, 2016
($000)

LINE	FUNCTIONAL CLASSIFICATION (A)	#17 ANNUALIZE VEG MGMT & INSPECTIONS (B)	#18 ADD INTEREST ON CUSTOMER DEPOSITS (C)	#19 NRRI MEMBERSHIP DUES (D)	#20 ENERGY EFFICIENCY PROGRAM COST RECOVERY ADJUSTMENT (E)	#21 REVENUE PILOT (F)	#22 LOBBYING EXPENSE (G)	#23 CLOUD COMPUTING COSTS (H)	#24 ENERGY EFFICIENCY TRAINING AND OTHER EXPENSES (I)	#25 INSURANCE ADJUST. (J)
	PRODUCTION:									
	INCREMENTAL COSTS:									
1	LABOR	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	FUEL (EXCL. W/H CR.)									
2	BASE LOAD	-	-	-	-	-	-	-	-	-
3	INTERCHANGE	-	-	-	-	-	-	-	-	-
4	FUEL ADDITIVES	-	-	-	-	-	-	-	-	-
	PURCHASED POWER									
	ENERGY									
5	BASE LOAD	-	-	-	-	-	-	-	-	-
6	INTERCHANGE	-	-	-	-	-	-	-	-	-
	CAPACITY COSTS									
7	BASE LOAD	-	-	-	-	-	-	-	-	-
8	INTERCHANGE	-	-	-	-	-	-	-	-	-
9	OTHER	-	-	-	-	-	-	-	-	-
10	TOTAL PRODUCTION EXPENSES	-	-	-	-	-	-	-	-	-
	TRANSMISSION EXPENSES:									
11	LABOR	-	-	-	-	-	-	-	-	-
12	OTHER	-	-	-	-	-	-	-	-	-
13	TOTAL TRANSMISSION EXPENSES	-	-	-	-	-	-	-	-	-
	REGIONAL MARKET EXPENSES:									
14	LABOR	-	-	-	-	-	-	-	-	-
15	OTHER	-	-	-	-	-	-	-	-	-
16	TOTAL REGIONAL MARKET EXPENSES	-	-	-	-	-	-	-	-	-
	DISTRIBUTION EXPENSES:									
17	LABOR	-	-	-	-	-	-	-	-	-
18	OTHER	66	-	-	-	-	-	(94)	-	-
19	TOTAL DISTRIBUTION EXPENSES	66	-	-	-	-	-	(94)	-	-
	CUSTOMER ACCOUNTING EXPENSES:									
20	LABOR	-	-	-	-	-	-	-	-	-
21	OTHER	-	1,696	-	-	-	-	-	-	-
22	TOTAL CUSTOMER ACCOUNTING EXPENSES	-	1,696	-	-	-	-	-	-	-
	CUSTOMER SERV. & INFO. EXPENSES:									
23	LABOR	-	-	-	-	-	-	-	-	-
24	OTHER	-	-	-	(65,796)	1,000	-	-	-	-
25	TOTAL CUSTOMER SERV. & INFO. EXPENSES	-	-	-	(65,796)	1,000	-	-	-	-
	SALES EXPENSES:									
26	LABOR	-	-	-	-	-	-	-	-	-
27	OTHER	-	-	-	-	-	-	-	-	-
28	TOTAL SALES EXPENSES	-	-	-	-	-	-	-	-	-
	ADMINISTRATIVE & GENERAL EXPENSES:									
29	LABOR	-	-	-	-	-	(34)	-	-	-
30	OTHER	-	-	12	-	-	(8)	(1,411)	337	1,489
31	**TOTAL ADMINISTRATIVE & GENERAL EXPENSES**	-	-	12	-	-	(42)	(1,411)	337	1,489
32	**TOTAL OPERATIONS & MAINTENANCE EXPENSES**	$ 66	$ 1,696	$ 12	$ (65,796)	$ 1,000	$ (42)	$ (1,505)	$ 337	$ 1,489

33 **NOTE:** See SCHEDULE LMM-12-6 for explanation of the pro forma adjustments.

SCHEDULE LMM-D-12-3

AMEREN MISSOURI
ELECTRIC OPERATING AND MAINTENANCE EXPENSES
PER BOOK AND PRO FORMA
FOR THE TWELVE MONTHS ENDED MARCH 31, 2016 UPDATED THROUGH DECEMBER 31, 2016
($000)

LINE	FUNCTIONAL CLASSIFICATION (A)	#26 PRO FORMA MEDICAL & BENEFIT ADJUST. (B)	#27 AMORTIZE CLOUD COMPUTING (C)	#28 NON-QUALIFIED PENSION ADJUST. (D)	#29 REBASE PENSION AND OPEB TRACKER (E)	#30 AMORTIZE PENSION AND OPEB TRACKER (F)	#31 ALCOHOL PURCHASES (G)	#32 NET RATE CASE EXPENSES (H)	#33 MPSC ASSESSMENT (I)	#34 BOARD OF DIRECTORS EXPENSE ADJUSTMENT (J)
	PRODUCTION:									
	INCREMENTAL COSTS:									
1	LABOR	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	FUEL (EXCL. W/H CR.)									
2	BASE LOAD	-	-	-	-	-	-	-	-	-
3	INTERCHANGE	-	-	-	-	-	-	-	-	-
4	FUEL ADDITIVES	-	-	-	-	-	-	-	-	-
	PURCHASED POWER									
	ENERGY									
5	BASE LOAD	-	-	-	-	-	-	-	-	-
6	INTERCHANGE	-	-	-	-	-	-	-	-	-
	CAPACITY COSTS		-	-	-	-	-	-	-	-
7	BASE LOAD	-	-	-	-	-	-	-	-	-
8	INTERCHANGE	-	-	-	-	-	-	-	-	-
9	OTHER	-	-	-	-	-	(12)	-	-	-
10	TOTAL PRODUCTION EXPENSES	-	-	-	-	-	(12)	-	-	-
	TRANSMISSION EXPENSES:									
11	LABOR	-	-	-	-	-	-	-	-	-
12	OTHER	-	-	-	-	-	(4)	-	-	-
13	TOTAL TRANSMISSION EXPENSES	-	-	-	-	-	(4)	-	-	-
	REGIONAL MARKET EXPENSES:									
14	LABOR	-	-	-	-	-	-	-	-	-
15	OTHER	-	-	-	-	-	-	-	-	-
16	TOTAL REGIONAL MARKET EXPENSES	-	-	-	-	-	-	-	-	-
	DISTRIBUTION EXPENSES:									
17	LABOR	-	-	-	-	-	-	-	-	-
18	OTHER	-	-	-	-	-	(5)	-	-	-
19	TOTAL DISTRIBUTION EXPENSES	-	-	-	-	-	(5)	-	-	-
	CUSTOMER ACCOUNTING EXPENSES:									
20	LABOR	-	-	-	-	-	-	-	-	-
21	OTHER	-	-	-	-	-	-	-	-	-
22	TOTAL CUSTOMER ACCOUNTING EXPENSES	-	-	-	-	-	-	-	-	-
	CUSTOMER SERV. & INFO. EXPENSES:									
23	LABOR	-	-	-	-	-	-	-	-	-
24	OTHER	-	-	-	-	-	(1)	-	-	-
25	TOTAL CUSTOMER SERV. & INFO. EXPENSES	-	-	-	-	-	(1)	-	-	-
	SALES EXPENSES:									
26	LABOR	-	-	-	-	-	-	-	-	-
27	OTHER	-	-	-	-	-	-	-	-	-
28	TOTAL SALES EXPENSES	-	-	-	-	-	-	-	-	-
	ADMINISTRATIVE & GENERAL EXPENSES:									
29	LABOR	-	-	-	-	-	-	-	-	-
30	OTHER	(86)	673	(125)	(31,837)	(3,296)	(29)	555	(800)	(651)
31	**TOTAL ADMINISTRATIVE & GENERAL EXPENSES**	(86)	673	(125)	(31,837)	(3,296)	(29)	555	(800)	(651)
32	**TOTAL OPERATIONS & MAINTENANCE EXPENSES**	$ (86)	$ 673	$ (125)	$ (31,837)	$ (3,296)	$ (51)	$ 555	$ (800)	$ (651)

33 **NOTE:** See SCHEDULE LMM-12-6 for explanation of the pro forma adjustments.

AMEREN MISSOURI
ELECTRIC OPERATING AND MAINTENANCE EXPENSES
PER BOOK AND PRO FORMA
FOR THE TWELVE MONTHS ENDED MARCH 31, 2016 UPDATED THROUGH DECEMBER 31, 2016
($000)

LINE	FUNCTIONAL CLASSIFICATION (A)	#35 UARG MEMBERSHIP COSTS (B)	#36 INCREASE IN BILDING RENTS FROM AMS (C)	#37 SOFTWARE RENTAL EXPENSE (D)	#38 ELECTRIC COSTS ALLOC TO GAS (E)	TOTAL PRO FORMA ADJUSTMENT (G)	PRO FORMA ELECTRIC TOTALS (H)
	PRODUCTION:						
	INCREMENTAL COSTS:						
1	LABOR	$ -	$ -	$ -	$ -	$ 9,707	$ 203,884
	FUEL (EXCL. W/H CR.)						
2	BASE LOAD	-	-	-	-	110,840	656,539
3	INTERCHANGE	-	-	-	-	(176,975)	-
4	FUEL ADDITIVES	-	-	-	-	276	8,261
	PURCHASED POWER						
	ENERGY						
5	BASE LOAD	-	-	-	-	(4,014)	48,263
6	INTERCHANGE	-	-	-	-	(2,278)	-
	CAPACITY COSTS	-	-	-	-		
7	BASE LOAD	-	-	-	-	(4,671)	13,577
8	INTERCHANGE	-	-	-	-	-	-
9	OTHER	-	-	-	-	(51,737)	127,400
10	TOTAL PRODUCTION EXPENSES	-	-	-	-	(118,852)	1,057,924
	TRANSMISSION EXPENSES:						
11	LABOR	-	-	-	-	(99)	7,724
12	OTHER	-	-	-	-	15,336	105,374
13	TOTAL TRANSMISSION EXPENSES	-	-	-	-	15,237	113,098
	REGIONAL MARKET EXPENSES:						
14	LABOR	-	-	-	-	-	-
15	OTHER	-	-	-	-	-	7,833
16	TOTAL REGIONAL MARKET EXPENSES	-	-	-	-	-	7,833
	DISTRIBUTION EXPENSES:						
17	LABOR	-	-	-	-	1,322	65,314
18	OTHER	-	-	-	-	(1,430)	91,418
19	TOTAL DISTRIBUTION EXPENSES	-	-	-	-	(108)	156,732
	CUSTOMER ACCOUNTING EXPENSES:						
20	LABOR	-	-	-	-	269	14,564
21	OTHER	-	-	-	-	1,696	40,971
22	TOTAL CUSTOMER ACCOUNTING EXPENSES	-	-	-	-	1,965	55,535
	CUSTOMER SERV. & INFO. EXPENSES:						
23	LABOR	-	-	-	-	35	9,178
24	OTHER	-	-	-	-	(81,421)	13,446
25	TOTAL CUSTOMER SERV. & INFO. EXPENSES	-	-	-	-	(81,386)	22,624
	SALES EXPENSES:						
26	LABOR	-	-	-	-	20	437
27	OTHER	-	-	-	-	-	40
28	TOTAL SALES EXPENSES	-	-	-	-	20	477
	ADMINISTRATIVE & GENERAL EXPENSES:						
29	LABOR	-	-	-	-	(2,849)	52,297
30	OTHER	(267)	2,096	(1,453)	40	(34,761)	145,105
31	**TOTAL ADMINISTRATIVE & GENERAL EXPENSES**	(267)	2,096	(1,453)	40	(37,610)	197,402
32	**TOTAL OPERATIONS & MAINTENANCE EXPENSES**	$ (267)	$ 2,096	$ (1,453)	$ 40	$ (220,734)	$ 1,611,625

33 **NOTE:** See SCHEDULE LMM-12-6 for explanation of the pro forma adjustments.

AMEREN MISSOURI
ELECTRIC OPERATING AND MAINTENANCE EXPENSE
PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	PRO FORMA ITEM NO. (A)	DESCRIPTION (B)	TOTAL AMOUNT (C)
1 2 3	(1)	Increased labor expense from annualizing the average 3.02% wage increase for management employees effective January 1, 2019, and January 1, 2020 and the 2.50% wage increase for the Company's union employees effective July 1, 2018 and July 1, 2019 per the labor contracts.	$ 14,886
4 5	(2)	Decrease the incentive compensation expense for the incentive compensation applicable to AMS and Ameren Missouri officers related to earnings.	$ (3,746)
6	(3)	Eliminate the long term incentive compensation expense related to earnings.	$ (8,234)
7 8	(4)	Decrease in fuel expense to reflect the normalized sales and customer growth through December 31, 2019 reflecting January 1, 2020 fuel prices.	$ (65,859)
9 10	(5)	Increase in purchased power expense to reflect normalized sales and customer growth through December 31, 2019 and normalized power prices.	$ 4,456
11	(6)	Decrease in transmission expense related to Mark Twain Transmission project.	$ (79)
12	(7)	Decrease the coal handling costs to reflect the reduced annualized amount of coal refinement.	$ (11,234)
13	(8)	Increase in production expenses to record actual amount of low-level radioactive waste expenditures.	$ 200
14	(9)	Eliminate test year FAC recovery	$ (44,239)
15 16	(10)	Increase to the nuclear production expense to include two-thirds of the annualized amount of the last 3 Callaway Nuclear Plant refueling expenses.	$ 20,899
17	(11)	Decrease in production expenses for amortization of RES cost regulatory liability.	$ (4,486)
18	(12)	Decrease in production expenses for rebase of RES expenses	$ (7,097)
19	(13)	Decrease in production expenses to eliminate Solar Rebate amortizations in the test year.	$ (16,759)
20	(14)	Increase in production expenses for Solar Rebate amortizations.	$ 135
21	(15)	Decrease in production and distribution expenses for decrease in depreciation charged to O&M.	$ (7)
22	(16)	Decrease in distribution expense to normalize storm costs.	$ (1,625)
23	(17)	Increase in distribution expense to normalize vegetation and infrastructure inspections.	$ 66
24 25	(18)	Increase in customer accounting expenses to reflect interest expense at 6.25% on the average customer deposit balance.	$ 1,696
26	(19)	Increase in administrative and general expenses to include NRRI membership dues to be paid in 2019	$ 12
26	(20)	Decrease in customer service to eliminate test year MEEIA program costs.	$ (65,796)
27	(21)	Increase in customer service expense for a revenue pilot.	$ 1,000
28	(22)	Decrease in administrative and general expenses to remove lobbying costs.	$ (42)
29	(23)	Decrease in administrative and general expenses to remove test year cloud computing expenses.	$ (1,505)
30	(24)	Increase in administrative and general expenses to recover energy efficiency-related training and other expenses.	$ 337
31	(25)	Annualize insurance expense based upon current insurance premiums.	$ 1,489
32 33	(26)	Decrease administrative and general expenses to reflect annualized year 2019 in the major medical and other employee benefit expenses.	$ (86)
34 35	(27)	Increase administrative and general expenses to reflect the amortization of cloud computing costs over a five year period.	$ 673
36	(28)	Decrease non-qualified pension expense to reflect current level of expense.	$ (125)
37	(29)	Rebase Pension and OPEB Tracker to year 2019 level.	$ (31,837)
38	(30)	Reduce the amortization of the net regulatory liabilities for Pension and OPEB Tracker.	$ (3,296)
39	(31)	Reduce expenses for alcohol purchases.	$ (51)
40 41	(32)	Increase administrative and general expenses to reflect the 3 case average of expenses to prepare and litigate this rate filings and annualize the amount.	$ 555
42	(33)	Decrease administrative and general expenses to annualize MPSC Assessment.	$ (800)
43	(34)	Decrease administrative and general expenses for certain Board of Director meeting expenses.	$ (651)
44	(35)	Decrease administrative and general expenses for UARG Membership.	$ (267)
45	(36)	Increase administrative and general expenses for building rent from AMS.	$ 2,096
46	(37)	Decrease administrative and general expenses for software rental expense.	$ (1,453)
47	(38)	Increase administrative and general expenses for electric costs allocated to gas.	$ 40
48	**Total Pro Forma Adjustments to Electric Operating and Maintenance Expenses**		$ (220,734)

AMEREN MISSOURI
DEPRECIATION & AMORTIZATION EXPENSE
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	TOTALS PER BOOKS (B)	PRO FORMA ADJUSTMENTS(1) (C)	PRO FORMA ELECTRIC TOTALS (D)
	DEPRECIATION EXPENSE:			
1	STEAM	152,747	45,086	197,833
2	NUCLEAR	73,332	12,633	85,965
3	CALLAWAY DECOMMISSIONING	6,759	-	6,759
4	HYDRAULIC	10,645	3,237	13,882
5	OTHER	28,101	(5,067)	23,034
6	TRANSMISSION PLANT	30,745	1,357	32,102
7	DISTRIBUTION PLANT	174,855	11,759	186,614
8	GENERAL PLANT	22,696	5,796	28,492
9	PISA	(1,374)	1,374	-
10	ICC DEPRECIATION	-	(910)	(910)
11	TOTAL DEPRECIATION EXPENSE	498,506	75,265	573,771
	PLANT AMORTIZATION:			
12	INTANGIBLE PLANT	26,469	16,574	43,043
13	HYDRAULIC PLANT	756	-	756
14	TRANSMISSION PLANT	440	-	440
15	GENERAL PLANT	-	-	-
16	PISA	(713)	713	-
17	TOTAL PLANT AMORTIZATION	26,952	17,287	44,239
	MISC. AMORTIZATION:			
18	CALLAWAY POST OPERATIONAL	3,687	-	3,687
19	CALLAWAY LIFE EXTEN AMORT	87	-	87
20	AMORT OF FUKUSHIMA STUDY COSTS	93	-	93
21	SIOUX SCRUBBER CONSTRUCTION ACCOUNTING	1,131	910	2,041
22	AMORT. OF STORM TRACKERS	(1,850)	1,283	(567)
23	AMORT. OF VEGETATION MANAGEMENT &			
24	INFRASTRUCTURE INSPECTION REG. ASSETS	186	(186)	-
25	AMORT. OF ENTERGY DISPUTE	248	(248)	-
26	AMORT. OF ENERGY EFFICIENCY REG ASSETS	5,840	(5,840)	-
27	MEEIA PROGRAM COSTS	12,120	(12,120)	-
28	AMORT OF LOW INCOME SURCHARGE	706	(706)	-
29	OVERCOLLECTION AMORTIZATION	(237)	237	-
30	AMORT OF FIN 48 TRACKER	1,048	(1,048)	-
31	EXCESS DEFERRED TRACKER ACCUMULATION	1,188	(1,188)	-
32	PISA AMORTIZATION	-	2,259	2,259
33	EXCESS DEFERRED TRACKER AMORTIZATION	-	(688)	(688)
34	GROSS RECEIPT TAX SETTLEMENT	-	2,686	2,686
35	TAX DEFERRAL RATE CHANGE JAN-JULY 2019	-	(11,947)	(11,947)
36	AMORT OF OVER COLLECTED AMORTIZATIONS	-	(5,560)	(5,560)
37	TOTAL MISC AMORTIZATION	24,247	(32,156)	(7,909)
38	TOTAL DEPR & AMORTIZATION EXPENSE	$ 549,705	$ 60,396	$ 610,101

39 (1) See SCHEDULE LMM-13-2 for explanation of the pro forma adjustments.

AMEREN MISSOURI
ELECTRIC DEPRECIATION & AMORTIZATION EXPENSE PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	ITEM NO. (A)	DESCRIPTION (B)		PRO FORMA ADJUSTMENTS (C)
1	(1)	To reflect the book depreciation annualized for the plant in service depreciable balances at		
2		December 31, 2018 and additions to plant in service from January 2019 through December		
3		2019 to reflect the true-up.		
4		Change in Depr. Exp. - Steam	$	9,175
5		Change in Depr. Exp. - Nuclear		2,910
6		Change in Depr. Exp. - Hydro		1,566
7		Change in Depr. Exp. - Other Prod.		644
8		Change in Depr. Exp. - Transmission		4,052
9		Change in Depr. Exp. - Distribution		12,570
10		Change in Depr. Exp. - General Plant		19,603
11		Change in Depr. Exp. - Incentive Comp Capitalized		(910)
12		Change in Amor. Exp. - Intangible Plant		16,574
13		Total Increase in Depreciation Expense	$	66,184
14	(2)	To reflect change in depreciation rates per testimony of Gannett Fleming		
15		Increase in Depr. Exp. - Steam	$	36,217
16		Increase in Depr. Exp. - Nuclear		9,723
17		Increase in Depr. Exp. - Hydro		1,671
18		Increase in Depr. Exp. - Other Prod.		(5,711)
19		Increase in Depr. Exp. - Transmission		(2,695)
20		Increase in Depr. Exp. - Distribution		(811)
21		Increase in Depr. Exp. - General Plant		(1,935)
22		Increase in Amort. Exp. - Intangible Plant		-
23		Total Increase in Depreciation Expense	$	36,459
24	(3)	To eliminate PISA deferral		
25		Depreciation	$	1,374
26		Amortization		713
			$	2,087
27	(4)	To reduce depreciation expense charged to O&M		
28		Decrease in Depr. Exp. - Steam	$	(306)
29		Decrease in Depr. Exp. - General Plant		(11,872)
30		Total Decrease in Depreciation Expense	$	(12,178)
31	(5)	To eliminate the amortizations of the Sioux Scrubber Construction Accounting	$	910
32		contra regulatory assets.		
33	(6)	To eliminate the amortization of storm costs from previous orders	$	1,283
34	(7)	To eliminate the net amortization of the vegetation management and infrastructure	$	(186)
35		inspection trackers		
36	(8)	To eliminate the amortization of Entergy dispute from previous order.	$	(248)
36	(9)	To eliminate the amortizations of the Energy Efficiency regulatory asset	$	(5,840)
37	(10)	To eliminate MEEIA Program Costs being moved to rider.	$	(12,120)
38	(11)	To reflect the elimination of Low Income Surcharge from Amortizations	$	(706)
39	(12)	To eliminate amortization of Overcollection Regulatory Liability	$	237
40	(13)	To reflect the amortization of the FIN 48 Tracker	$	(1,048)
41	(14)	To eliminate the accumulation of Excess Deferred Tracker	$	(1,188)
42	(15)	To reflect amortization of PISA	$	2,259
43	(16)	To reflect amortization of Excess Deferred Tracker	$	(688)
44	(17)	To reflect amortization of Gross Receipts Tax settlement	$	2,686
45	(18)	To reflect amortization Tax Deferral Rate Change (1/1/19 - 7/31/19)	$	(11,947)
46	(19)	To reflect amortization of Overcollection Regulatory Liability	$	(5,560)
47	TOTAL PRO FORMA ADJUSTMENTS: DEPRECIATION & AMORTIZATION		$	60,396

AMEREN MISSOURI
TAXES OTHER THAN INCOME TAXES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	TOTAL PER BOOKS (B)	PRO FORMA ADJUSTMENTS(1) (C)	PRO FORMA ELECTRIC TOTALS (D)
	PAYROLL TAXES			
1	F.I.C.A.	$ 20,141	$ 565	$ 20,706
2	FEDERAL UNEMPLOYMENT	170	-	170
3	MISSOURI UNEMPLOYMENT	-	-	-
4	ILLINOIS UNEMPLOYMENT	-	-	-
5	OTHER STATES UNEMPLOYMENT	-	-	-
6	ST. LOUIS EMPLOYMENT TAX	453	-	453
7	TOTAL PAYROLL TAXES	20,764	565	21,329
	R.E., P.P. & CORP FRANCHISE			
8	MISSOURI R.E., & P.P.	132,145	13,624	145,769
9	ILLINOIS R.E., & P.P.	3,977	55	4,032
10	IOWA R.E., & P.P.	1,446	34	1,480
11	OTHER STATES R.E. & P.P.	41	4	45
12	R.E. TAXES CAPITALIZED	(3,750)	-	(3,750)
13	TRANSFER TO GAS	(123)	-	(123)
	TRANSFER TO NON UTILITY	(84)	-	(84)
14	TOTAL R.E., P.P. & CORP FRANCHISE	133,652	13,717	147,369
15	**MUNICIPAL GROSS RECEIPTS**	157,139	(157,139)	-
	MISCELLANEOUS			
16	MISSOURI CORP FRANCHISE	-	-	-
17	ILLINOIS CORP FRANCHISE	95	-	95
18	FED. EXCISE TAX-HEAVY VEH. USE TAX	19	-	19
19	MO. EXCISE - NEIL INS. PREM.	-	-	-
20	MISCELLANEOUS	613	-	613
21	TOTAL MISCELLANEOUS	727	-	727
22	**TOTAL TAXES OTHER THAN INCOME TAXES**	$ 312,282	$ (142,857)	$ 169,425
23	(1) See SCHEDULE LMM-14-2 for explanation of the pro forma adjustments.			

AMEREN MISSOURI
TAXES OTHER THAN INCOME
PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	ITEM NO. (A)	DESCRIPTION (B)		PRO FORMA AMOUNT (C)
1	(1)	Increase the F.I.C.A. taxes to reflect the pro forma wage adjustments.	$	565
2	(2)	Increase Real Estate and Personal Property Taxes to 2019 expense level.	$	14,136
3	(3)	Eliminate the property taxes on future use plant, as this investment is excluded	$	(419)
4		from rate base.		
5	(4)	Eliminate the gross receipts tax as they are a pass through tax.	$	(157,139)
6		**Total Pro Forma Adjustments to Taxes Other Than Incom**ε	$	(142,857)

AMEREN MISSOURI

TOTAL ELECTRIC INCOME TAXES AT THE PROPOSED RETURN
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	(B)	TOTAL ELECTRIC (C)
1	TOTAL ELECTRIC NET INCOME FROM OPERATIONS		$ 587,099
	ADD		
2	CURRENT INCOME TAXES		114,067
3	DEFERRED INCOME TAXES		
4	DEFERRED INCOME TAX EXPENSE		(56,384)
5	I.T.C. AMORTIZATION		(5,123)
6	TOTAL ELECTRIC NET INCOME BEFORE INCOME TAX		639,659
	ADDITIONS TO NET INCOME BEFORE INCOME TAX		
7	BOOK DEPRECIATION		573,771
8	BOOK DEPRECIATION CHARGED TO O&M		8,339
9	INTANGIBLE AMORTIZATIONS		43,043
10	HYDRAULIC AMORTIZATIONS		756
11	TRANSMISSION AMORTIZATIONS		440
12	CALLAWAY POST OPERATIONAL COSTS		3,687
13	NONDEDUCTIBLE PARKING LOT EXPENSE		1,227
14	TOTAL ADDITIONS		631,263
	SUBTRACTIONS TO NET INCOME BEFORE INCOME TAX		
15	INTEREST ON DEBT (1)		171,766
16	TAX STRAIGHT LINE		609,911
17	PRODUCTION DEDUCTION		-
18	NUCLEAR DECOMMISSIONING		6,759
19	PREFERRED DIVIDEND DEDUCTION		397
20	TOTAL SUBTRACTIONS		788,833
21	**TOTAL ELECTRIC NET TAXABLE INCOME**		**482,089**
	FEDERAL INCOME TAX		
22	NET TAXABLE INCOME		482,089
23	DEDUCT MISSOURI INCOME TAX		17,342
24	DEDUCT CITY EARNINGS TAX		424
25	FEDERAL TAXABLE INCOME		464,323
26	**FEDERAL INCOME TAX**	**21.00%**	97,508
	LESS TAX CREDITS		
27	RESEARCH CREDIT		1,206
28	PRODUCTION TAX CREDIT		-
29	**TOTAL ELECTRIC FEDERAL INCOME TAX**		**96,302**
	STATE INCOME TAXES		
30	NET TAXABLE INCOME		482,089
31	DEDUCT 50% OF FEDERAL INCOME TAX		48,151
32	DEDUCT CITY EARNINGS TAX		424
33	MISSOURI TAXABLE INCOME		433,514
34	**TOTAL ELECTRIC MISSOURI INCOME TAX**	**4.00%**	**17,342**
	CITY EARNINGS TAX		
35	NET TAXABLE INCOME		482,089
36	LESS TAX ADJUSTMENTS TO INCOME		31,014
37	CITY TAXABLE INCOME		451,075
38	CITY EARNINGS TAX	**0.1097%**	495
39	LESS: TAX CREDIT		71
40	**TOTAL ELECTRIC NET CITY EARNINGS TAX**		**424**
41	**TOTAL ELECTRIC CURRENT INCOME TAXES**		**114,068**
	DEFERRED INCOME TAXES:		
42	DEFERRED INCOME TAX EXPENSE		(56,384)
43	I.T.C. AMORTIZATION		(5,123)
44	**TOTAL ELECTRIC DEFERRED INCOME TAX**		**(61,507)**
45	**TOTAL ELECTRIC CURRENT & DEFERRED INCOME TAX**		**$ 52,561**
46	(1) RATE BASE X EMBEDDED		
47	COST OF DEBT.	**2.153%**	

AMEREN MISSOURI
TOTAL ELECTRIC NET ORIGINAL COST RATE BASE AND REVENUE REQUIREMENT
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018
($000)

LINE	DESCRIPTION (A)	REFERENCE (B)	TOTAL ELECTRIC AMOUNT (C)
	A. TOTAL ELECTRIC NET ORIGINAL COST RATE BASE		
1	ORIGINAL COST OF PLANT IN SERVICE	SCHEDULE LMM-1	$ 18,987,298
2	LESS: RESERVES FOR DEPRECIATION & AMORTIZATION	SCHEDULE LMM-2	8,595,769
3	NET ORIGINAL COST OF PLANT		10,391,529
4	AVERAGE FUEL AND MATERIALS AND SUPPLIES	SCHEDULE LMM-3	507,557
5	AVERAGE PREPAYMENTS	SCHEDULE LMM-4	14,088
6	CASH WORKING CAPITAL (LEAD/LAG)	SCHEDULE LMM-5	(6,411)
7	FEDERAL INCOME TAX CASH REQUIREMENT	SCHEDULE LMM-6	(145)
8	STATE INCOME TAX CASH REQUIREMENT	SCHEDULE LMM-6	(26)
9	CITY EARNINGS TAX CASH REQUIREMENT	SCHEDULE LMM-6	(274)
10	INTEREST EXPENSE CASH REQUIREMENT	SCHEDULE LMM-6	(24,541)
11	AVERAGE CUSTOMER ADVANCES FOR CONSTRUCTION	SCHEDULE LMM-7	(7,405)
12	AVERAGE CUSTOMER DEPOSITS	SCHEDULE LMM-7	(27,131)
13	PENSION TRACKER REG ASSET	SCHEDULE LMM-8	(40,127)
14	OPEB TRACKER REG LIABILITY	SCHEDULE LMM-8	(6,975)
15	ENERGY EFFICIENCY REGULATORY ASSET	SCHEDULE LMM-8	0
16	FIN 48 TRACKER REGULATORY ASSET AND LIABILITY	SCHEDULE LMM-8	0
17	PISA REGULATORY ASSET	SCHEDULE LMM-8	45,180
18	CLOUD COMPUTING REGULATORY ASSET	SCHEDULE LMM-8	0
19	UNDER COLLECT AMORTIZATIONS IN RATE BASE	SCHEDULE LMM-8	33
20	ACCUMULATED DEFERRED INCOME TAXES	SCHEDULE LMM-9	(2,867,380)
21	**TOTAL ELECTRIC NET ORIGINAL COST RATE BASE**		**$ 7,977,972**
	B. TOTAL ELECTRIC REVENUE REQUIREMENT		
	TOTAL ELECTRIC OPERATING EXPENSES:		
22	PRODUCTION	SCHEDULE LMM-11-4	$ 1,057,924
23	TRANSMISSION	SCHEDULE LMM-11-4	113,098
24	REGIONAL MARKET EXPENSES	SCHEDULE LMM-11-4	7,833
25	DISTRIBUTION	SCHEDULE LMM-11-4	156,732
26	CUSTOMER ACCOUNTS	SCHEDULE LMM-11-4	55,535
27	CUSTOMER SERVICE	SCHEDULE LMM-11-4	22,624
28	SALES	SCHEDULE LMM-11-4	477
29	ADMINISTRATIVE AND GENERAL	SCHEDULE LMM-11-4	197,402
30	TOTAL ELECTRIC OPERATING EXPENSES		1,611,625
31	DEPRECIATION AND AMORTIZATION	SCHEDULE LMM-12-1	610,101
32	TAXES OTHER THAN INCOME TAXES	SCHEDULE LMM-13-1	169,425
	INCOME TAXES-BASED ON PROPOSED RATE OF RETURN		
33	FEDERAL	SCHEDULE LMM-14	96,302
34	STATE	SCHEDULE LMM-14	17,342
35	CITY EARNINGS	SCHEDULE LMM-14	424
36	TOTAL INCOME TAXES		114,068
	DEFERRED INCOME TAXES		
37	DEFERRED INCOME TAX EXPENSE	SCHEDULE LMM-14	(56,384)
38	I.T.C. AMORTIZATION	SCHEDULE LMM-14	(5,123)
39	TOTAL DEFERRED INCOME TAXES		(61,507)
40	RETURN (RATE BASE * 7.359%)	7.359%	587,099
41	**TOTAL ELECTRIC REVENUE REQUIREMENT**		**$ 3,030,811**

AMEREN MISSOURI
INCREASE REQUIRED TO PRODUCE 7.359% RETURN ON TOTAL ELECTRIC NET ORIGINAL COST RATE BASE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018

LINE	DESCRIPTION (A)		TOTAL ELECTRIC AMOUNT (B)
1	TOTAL ELECTRIC NET ORIGINAL COST RATE BASE	$	7,977,972
	TOTAL ELECTRIC REVENUE REQUIREMENT:		
2	RETURN AT PROPOSED RATE (7.359%)		587,099
3	OPERATING AND MAINTENANCE EXPENSES		1,611,625
4	DEPRECIATION AND AMORTIZATION		610,101
5	TAXES OTHER THAN INCOME		169,425
6	FEDERAL AND STATE INCOME AND CITY EARNINGS TAXES AT CLAIMED RETURN		114,068
7	DEFERRED INCOME TAXES		(61,507)
8	TOTAL ELECTRIC REVENUE REQUIREMENT		3,030,811
9	PRO FORMA TOTAL ELECTRIC OPERATING REVENUE AT PRESENT RATES		3,031,585
10	DEFICIENCY IN TOTAL ELECTRIC OPERATING REVENUE	$	(774)

AMEREN MISSOURI
CALCULATION OF NET BASE ENERGY COST (BF)
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2018

LINE		DESCRIPTION (A)	TOTAL (B)	SUMMER (D)	WINTER (E)
	A	FUEL & PURCHASED POWER COSTS			
		BASE LOAD			
1		FUEL FOR LOAD	482,422,000	173,960,000	308,462,000
2		FLY ASH (1)	(1,336,691)	(480,472)	(856,219)
3		FIXED GAS SUPPLY COSTS FOR LOAD (2)	6,096,284	2,200,680	3,895,604
4		FUEL ADDITIVES (2)	8,261,348	2,982,241	5,279,107
5		PURCHASED POWER FOR LOAD	23,166,000	6,870,000	16,296,000
6		TOTAL BASE LOAD	518,608,941	185,532,449	333,076,492
		OSS			
7		FUEL FOR LOAD	167,702,000	61,909,000	105,793,000
8		FLY ASH (1)	-	-	-
9		FIXED GAS SUPPLY COSTS FOR LOAD (2)	2,119,222	765,012	1,354,210
10		FUEL ADDITIVES (2)	-	-	-
11		PURCHASED POWER FOR LOAD	(1,463,297)	(434,000)	(1,029,297)
12		TOTAL OSS	168,357,925	62,240,012	106,117,913
13		TOTAL FUEL AND PURCHASED POWER	686,966,866	247,772,461	439,194,405
	B	TRANSMISSION COSTS AND REVENUES			
14		TRANSMISSION BY OTHERS (ACCT. 565 @1.86%) (2)	1,612,893	582,254	1,030,639
15		TRANMISSION REVENUES (ACC 456.1) (2)	(793,871)	(286,588)	(507,283)
16		TOTAL TRANSMISSION COSTS AND REVENUES	819,022	295,666	523,356
	C	ADDITIONAL FUEL & PP COSTS			
17		MISO DAY 2 EXCLUDING ADMIN (ACCT 555) (2)	22,511,313	8,126,296	14,385,017
18		CAPACITY EXPENSE (2)	13,577,287	4,901,227	8,676,060
19		ANCILLARY SERVICES PURCHASED (ACCT. 555) (2)	3,261,387	1,177,361	2,084,026
20		PJM EXCLUDING ADMIN (ACCT. 555) (2)	787,934	284,444	503,490
21		REPLACEMENT POWER INSURANCE (ACC 925) (2)	673,024	242,962	430,062
22		TOTAL ADDITIONAL FUEL & PP COSTS	40,810,945	14,732,290	26,078,655
	D	SALES			
23		OFF-SYSTEM ENERGY SALES REVENUES (ACCT. 447)	263,660,350	90,446,000	173,214,350
24		MAKE WHOLE PAYMENT MARGINS (ACCT 447) (2)	5,285,291	1,907,922	3,377,369
25		CAPACITY SALES REVENUES (ACCT. 447) (2)	22,572,986	8,148,559	14,424,427
26		FINANCIAL SWAPS (ACCT 447) (2)	764,200	275,866	488,334
27		ANCILLARY SERVICES REVENUE (ACCT. 447) (2)	9,808,469	3,540,732	6,267,737
28		TOTAL SALES	302,091,296	104,319,079	197,772,217
	E	OTHER ADJUSTMENTS			
29		REAL-TIME LOAD AND GENERATION DEVIATION (2)	9,427,452	3,403,189	6,024,263
30		TOTAL OTHER ADJUSTMENTS	9,427,452	3,403,189	6,024,263
31	A + B + C - D - E	NET BASE ENERGY COSTS	417,078,085	155,078,149	261,999,936
32		LOAD AT MISO CP NODE AMMO.UE (KWH)	33,938,600,000	12,251,000,000	21,687,600,000
33		BASE FACTOR (BF) ($ PER MWH)	12.29	12.66	12.08
34		BASE FACTOR (BF) (CENTS PER KWH)	1.229	1.266	1.208

35 MONTHS IN EACH PERIOD:
36 SUMMER: JUNE THROUGH SEPTEMBER
37 WINTER: OCTOBER THROUGH MAY

38 (1) ALLOCATED BETWEEN SUMMER AND WINTERS BASED ON COAL FROM FUEL MODEL.
39 (2) ALLOCATED BETWEEN SUMMER AND WINTERS BASED ON LOAD.

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 Decrease Its Revenues for Electric Service.	)) File No. ER-2019-0335)

AFFIDAVIT OF LAURA M. MOORE

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

Laura M. Moore, being first duly sworn on his oath, states:

1. My name is Laura M. Moore. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a Ameren Missouri as Controller, Ameren Missouri.

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 35 pages and Schedule(s) LMM-D1 to LMM-D18, 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.

Laura M Moore
Laura M. Moore

Subscribed and sworn to before me this 26th day of June, 2019.

Geri A. Best
Notary Public

My commission expires:

GERI A. BEST
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: February 15, 2022
Commission Number: 14839811