MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

CLASS COST OF SERVICE

UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

GENERAL RATE CASE

CASE NO. GR-2019-0077

Jefferson City, Missouri
May 2019

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UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

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STAFF'S CLASS COST OF SERVICE REPORT OF

UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI

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I. Background and Executive Summary

Ameren Missouri's request for an approximately $4.26 million increase over current gross revenues of $73.69 million would produce a total revenue requirement of approximately $77.95 million; an increase of approximately 5.76%.

In its Cost of Service Report ("COS"), Staff recommended a $1,244,206 gross revenue requirement, or incremental rate increase from current interim rates, based on a return on equity ("ROE") of 9.5%; the mid-point of Staff's recommended equity cost rate range of 9.0% to 10.0%. Staff's revenue requirement is based on a test year of the twelve months ending June 30, 2018, including true-up estimates through May 31, 2019, taking into account the interim reduction in rates, effective January 2, 2019, related to the Tax Cut and Jobs Act of 2017 ("TCJA").

More specifically, the new permanent rates as ordered by the Commission in this rate proceeding will incorporate the reduction to revenue requirement associated with the TCJA. Staff's recommended $1,244,206 gross revenue requirement or incremental rate increase from current interim rates is calculated as follows: the difference between the $1,935,368 million of interim natural gas rate reduction and Staff's recommended $691,162 reduction to permanent rates.

In this Report, Staff discusses class cost-of-service ("CCOS") and rate design issues. In general, Staff's CCOS study is designed to determine what rate of return is produced by each customer class on that class's permanent rates as tariffed prior to the implementation of the interim rates. Staff's recommended interclass revenue responsibility shifts are designed to reasonably bring each class closer to producing the system-average rate of return used in determining Staff's recommended revenue requirement, as appropriate.

Similarly, Staff's rate design recommendations provide intra-class shifts which will, where appropriate, redesign the rates that collect a particular class's revenues to better align that class's method of recovering revenue with the cost-causation for that class. Further, Staff provides additional rate design options incorporating the Commission's recent guidance on certain rate design policy objectives.

Other noteworthy items that Staff addresses within this Report include recommendations regarding a Weather Normalization Adjustment Rider and changes to the existing Special Contract Rates – Transportation Service tariff sheet. Should the Commission determine that a mechanism to account for changes in usage due to variations in either weather or conservation is in the public interest and is just and reasonable in this case, Staff recommends approving a weather normalization adjustment rider similar to the example tariff sheets attached as Appendix 2, Schedule MLS-d1. Regarding the existing Special Contract Rates – Transportation Service ("SCR"), Staff recommends increasing the specificity of provisions contained in Ameren Missouri's SCR tariff found at Sheet No. 18.1. Staff's recommended language is provided in Appendix 2, Schedule RK-d1.

Class Revenue Recommendations

Staff bases its class revenue responsibility recommendations on its CCOS results, with an interest in avoiding dramatic changes in rates or causing interclass rate switching. Staff's recommended revenue requirement is a *decrease* to *permanent* rates, but an *increase* to *interim* rates. Relative to the class revenues generated **prior to the interim rate reduction,** Staff recommends that any decrease in this case be allocated to the classes through the following process[1]:

1. Maintain the revenue responsibility of the Residential, General Service, and Interruptible classes under permanent rates[2];

2. Apply the first $286,820 of decrease equally to the Standard Transportation and Large Volume Transportation Classes;

3. Apply any further decreases to the Standard Transportation class, up to a total reduction to that class of $547,752;

4. Apply any further decreases to all classes as an equal percentage adjustment.

[1] Interim rates were applied as a reduction to the volumetric rate paid by each customer. Class revenues as discussed in this Report DO NOT include customer dollars paid for the cost of gas as part of the Purchased Gas Adjustment or as modified through the Annual Cost Adjustment process. Ameren Missouri's ISRS tariff rate schedule is currently zero.

[2] Rates in effect prior to the interim rate reduction.

This series of changes would result in minimized customer impact in that it would retain the class revenue responsibilities of the Residential, General Service, and Interruptible classes that existed prior to the interim rate reduction, would maintain the revenue responsibility of the Large Volume Transportation class as it exists today on interim rates, and moves the permanent rates of the Standard Transportation class closer to the results of Staff's CCOS.

Rate Design Recommendations

Staff recommends a residential customer charge of $17.00 and a residential volumetric rate for all Ccfs of approximately $.28/Ccf. For the General Service and Interruptible service Staff recommends that the non-gas rates prior to the interim rate reduction be maintained. For the Large Volume and Standard Transportation classes, Staff recommends that the existing customer charge, administrative charge, and aggregation and balancing charge for each class be held constant. Staff further recommends that the first block charge for Large Volume and Standard Transportation classes be consistent across classes, and that the relationship of the second block charge be held in a manner that does not encourage rate switching.

Staff Expert/Witness: Natelle Dietrich

II. Class Cost of Service and Rate Design

Rates are structured and designed to reasonably relate the manner in which customers are charged for a service to the manner in which the company incurs non-gas expenses as well as make investments to provide service and to make service available. Individual customers with generally similar characteristics are grouped into classes. Classes may have different rate structures as different balances are struck between ease of billing, customer understandability, and cost causation. Non-gas expenses and rate base are allocated or assigned to each class through the performance of a CCOS study. The purpose of Staff's CCOS study is to determine the level of return provided by each class on the utility's investments assigned or allocated to that class. Staff's CCOS study is a continuation and refinement of Staff's Cost of Service Study, which estimates the non-gas costs incurred in providing natural gas service to each of Ameren Missouri's customer classes for the test year. Because those costs comprise Ameren Missouri's non-gas revenue requirement, the results of a CCOS study determine class revenue requirements based on the cost responsibility of each customer class for its share of the utility's total annual non-gas cost of providing natural gas service.

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

III. Staff's Class Cost of Service ("CCOS") Study

To perform its class cost of service study Staff allocated the level of investment and expenses described in Staff's direct-filed accounting schedules to the following customer classes:

- Residential
- General Service ("GS")
- Interruptible
- Small Transportation ("ST")
- Large Volume Transportation ("LVT")

This per-class level of allocated costs, net of allocated other revenues, is then compared to the annualized and normalized revenues produced by each class. The result of this analysis is the level of rate of return on investment produced by each customer class.

Current Class Revenues and Cost to Serve

The results of Staff's CCOS study are shown in the table below.[3] The study only reflects the non-gas portion of a customer's bill; it does not include costs associated with the purchased gas adjustment ("PGA").[4] Table 1 shows the current rate revenues from each customer class from both the interim and permanent rates. Also provided is the fully-allocated estimate of Ameren Missouri's cost-of-serving that class, if each class were to produce revenues that would result in an equal rate of return among classes.[5] Finally, the difference between each class's current permanent revenues and its fully allocated net cost of

[3] The results of a CCOS study can be presented either in terms of (1) the rate of return realized for providing service to each class or (2) in terms of the revenue responsibility shifts that are required to equalize the utility's rate of return from each class. Staff presents the results of its analysis in terms of the shifts in revenue responsibilities that produce an equal rate of return for Ameren Missouri from each customer class.

[4] Ameren Missouri's ISRS tariff rate schedule is currently zero.

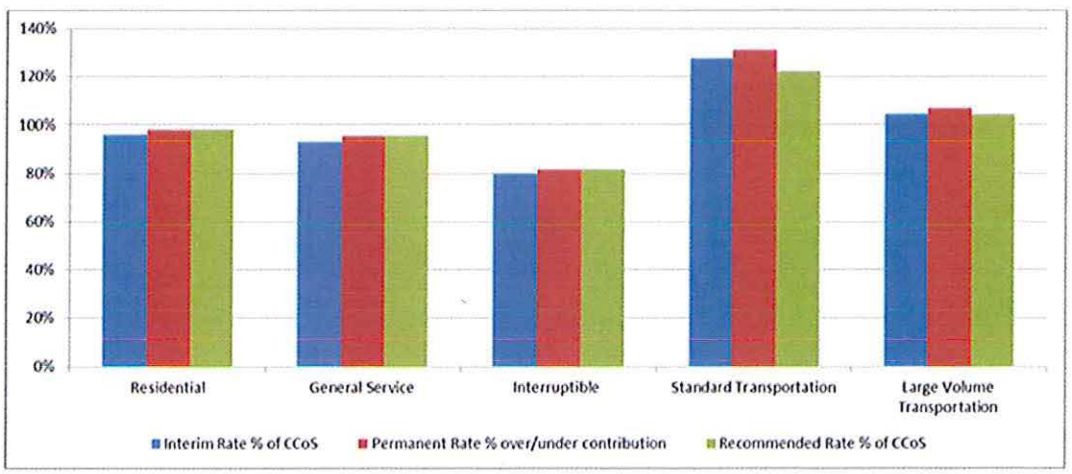
[5] Other revenues, such as those produced from rental of ratepayer-funded properties, forfeited discounts and connection/disconnection fees, are allocated to the customer classes and offset against Ameren Missouri's cost of service.

service at the recommended system average rate of return is provided as both a dollar and as a percent of current permanent revenues. The accompanying chart provides the percent of fully-allocated net cost of service at the recommended system average rate of return that each class provides.[6]

Table 1 and the accompanying chart indicate that while classes do not provide equal rates of return, no class is providing a negative return, and thus no economic subsidies exist in this case.

Table 1

	Residential	General Service	Interruptible	Standard Transportation	Large Volume Transportation
Revenue from Interim Rates	$ 43,868,385	$ 15,124,761	$ 381,109	$ 7,656,427	$ 5,271,906
Revenue from Permanent Rates	$ 45,035,732	$ 15,531,943	$ 391,092	$ 7,868,505	$ 5,415,316
CCoS Less Other Revenue	$ 45,746,499	$ 16,264,871	$ 478,513	$ 5,999,539	$ 5,062,002
Revenue Responsibility Shifts	$ -	$ -	$ -	$ (547,752)	$ (143,410)
Recommended Revenue Requirement	$ 45,035,732	$ 15,531,943	$ 391,092	$ 7,320,753	$ 5,271,906
% Change from Permanent Rates	0.0%	0.0%	0.0%	-7.0%	-2.6%
% change from Interim Rates	2.7%	2.7%	2.6%	-4.4%	0.0%
Rate of Return from Permanent Rates	6.7%	6.0%	3.3%	14.7%	8.8%
Rate of Return at Recommended RR	6.7%	6.0%	3.3%	12.5%	8.1%



In the course of recommending rate designs and interclass shifts, Staff is mindful of a number of things:

(1) Consideration of policy, such as rate continuity, rate stability, revenue stability, minimization of rate shock, meeting of incremental costs, and consideration of promotional practices. Staff

[6] Staff based this CCOS study on Staff's mid-point revenue requirement recommendation.

endeavors to provide methods to implement in rates any Commission-ordered overall change in customer revenue responsibility while promoting revenue stability and efficiency. Staff must also balance this, to the extent possible, with retaining existing rate schedules, rate structures, and important features of the current rate design that reduce the number of customers that switch rates looking for the lowest bill. Rate schedules should be understandable by all parties, customers, and the utility as to proper application and interpretation.

(2) Staff strives to provide the Commission with a rate design recommendation based on each customer class's relative cost-of-service responsibility, and that will yield the total revenue requirement to all classes in a fair manner, avoiding undue discrimination, and including methods to recover costs in a timely manner.

(3) CCOS studies are not precise and should serve as a guide to setting rates. For example, CCOS studies are based on a direct-filed revenue requirement and the allocation of that revenue requirement among specific accounts, using a specific rate of return. Unless the Commission approves that exact set of accounting schedules and billing determinants that were filed in Staff's Direct COS Report, there is an inherent disconnect between the CCOS study results used in this Report, and the actual class cost of service that would result at the conclusion of a case.

(4) In a general rate case resulting in an increase in a utility's overall revenue requirement, Staff is reluctant to recommend reducing any class's rates while the overall revenue requirement is increasing.

(5) In providing its rate design recommendation, Staff attempts to recommend revenue-neutral shifts so that once the rate increase has been applied, a given class does not under contribute by greater than 5% of its revenue requirement while another class or classes do not over contribute by greater than 5% of their revenue requirement.

Because in this case Staff recommends a decrease from permanent rates, greater flexibility may be afforded to moving classes closer to the allocated cost of service while preserving customer understandability and avoiding rate shock. The unique situation of implementing an interim rate decrease presents an opportunity to revert three classes to existing permanent rates, while maintaining the interim reduction applied to the LVT class, and further reducing the revenue responsibility of the ST class. These recommended shifts and the relationship of the recommended class revenue requirements to both permanent rates and the net revenue resulting from the application of the interim adjustment to permanent rates ("Interim Rates") are provided in Table 2, below:

Table 2

	Residential	General Service	Interruptible	Standard Transportation	Large Volume Transportation
Revenue from Interim Rates	$ 43,868,385	$ 15,124,761	$ 381,109	$ 7,656,427	$ 5,271,906
Revenue from Permanent Rates	$ 45,035,732	$ 15,531,943	$ 391,092	$ 7,868,505	$ 5,415,316
CCoS Less Other Revenue	$ 45,746,499	$ 16,264,871	$ 478,513	$ 5,999,539	$ 5,062,002
Revenue Responsibility Shifts	$ -	$ -	$ -	$ (547,752)	$ (143,410)
Recommended Revenue Requirement	$ 45,035,732	$ 15,531,943	$ 391,092	$ 7,320,753	$ 5,271,906
% Change from Permanent Rates	0.0%	0.0%	0.0%	-7.0%	-2.6%
% change from Interim Rates	2.7%	2.7%	2.6%	-4.4%	0.0%

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

A. Data Sources

Staff's CCOS studies utilized Staff's revenue requirement positions as filed on April 19, 2019. This data includes:

- Adjusted Missouri investment and cost data by FERC account;
- Annualized, normalized rate revenues;
- Other operating and maintenance expenses;
- Depreciation and amortizations; and
- Taxes.

In addition, Staff reviewed Ameren's current CCOS studies and other current workpapers on the average cost of class meters and class billing information.

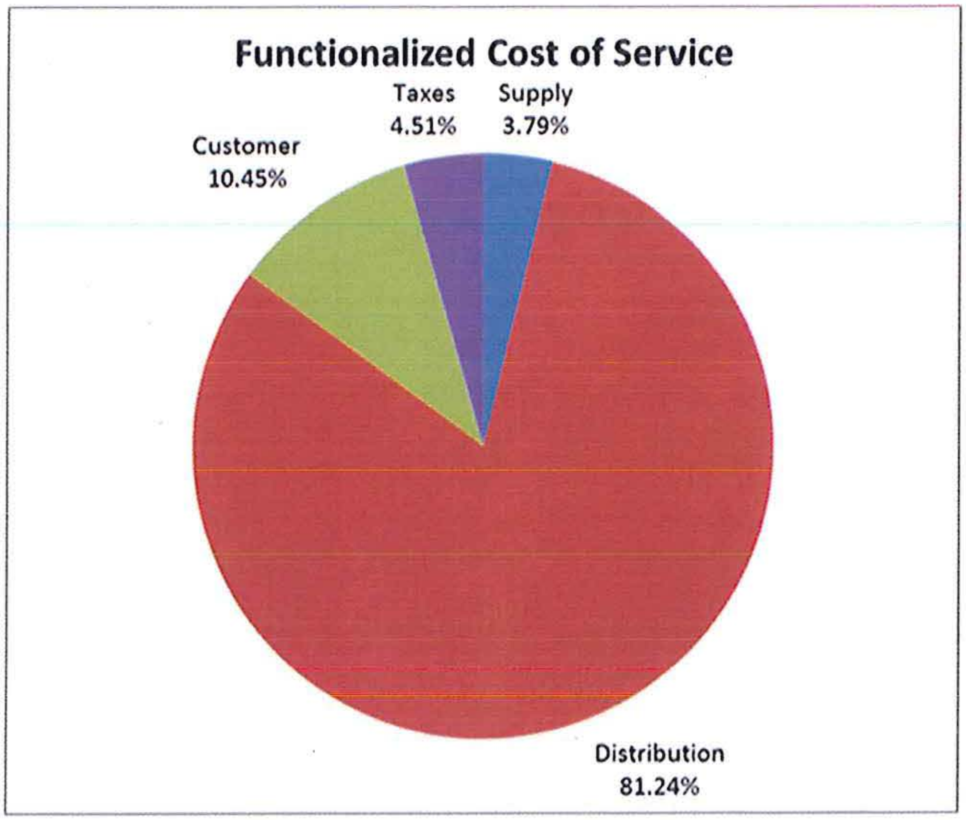
Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

B. Functions

Natural gas utilities differ from other utilities, such as electric, in that the production and transmission of the commodity is largely accomplished by entities other than the utility itself. Recovery of gas costs is made through the PGA. The major functional cost categories Staff used in its CCOS studies are Distribution and Customer. Within the Distribution Function, a distinction was made between the mains, which are generally designed to deliver natural gas to multiple customers, and the regulators, meters, and service lines used to deliver natural gas service to a specific customer. The functional categories used in Staff's CCOS studies include: Production, Storage & Transmission, Distribution Mains, Distribution Meters, Distribution Regulators, Distribution Services, Billing, Uncollectible Accounts, Deposits, and Income Taxes.

The "Distribution Function" (combination of Distribution Mains, Distribution Meters, Distribution Regulators, and Distribution Services) is the single largest cost component, and represents 81.24% of the total cost for Ameren Missouri, as shown in the below graph.

The "Customer Function," at 10.45% of the total costs for Ameren Missouri includes deposits, uncollectible accounts, and billing.



Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

C. Allocation of Distribution Costs

Distribution is the link in the chain built to deliver natural gas from the wholesale system to Ameren Missouri's customers' homes and businesses. Ameren Missouri's distribution plant includes underground mains and laterals together with meters and regulators, as well as service and labor expenses incurred for the operation and maintenance of these distribution facilities. Staff reviewed Ameren Missouri's Peak and Average allocation factor for Distribution Mains, Account 376, which had a plant in service value of approximately $291.5 million in Staff's COS direct filing, and determined that it is a reasonable allocator for distribution mains. Distribution mains need to be sized to serve customers on the peak day but also need to be designed to serve customers 365 days of the year.

Staff used the allocator developed by Ameren Missouri for meters, regulators, and service lines, after determining that the results of Ameren's study appear to be reasonable. For service lines, Account 380, which had a plant in service value of over $132 million in Staff's COS direct filing, Ameren Missouri developed three typical cost estimates to install these service lines today for residential, commercial and large customers. These three typical costs were then used together with the number of customers in each rate class to determine an allocation factor for each class. Similarly, for meters and regulators, Accounts 381 and 383, which had a plant in service value of approximately $22 million and $17.6 million in Staff's COS direct filing, typical costs were developed for various meters and regulators, the number of customers in each class that the various meters and regulators was determined, and the resulting allocation factor for each class was determined.

Staff Expert/Witness: Daniel I. Beck, PE

D. Allocation of Customer-Related Costs

Customer-related costs include expenses incurred for billing and customer services. Customer-related costs are costs necessary to make natural gas service available to the customer, regardless of whether or not the service was utilized. Examples of such costs include meter reading, billing, postage, customer accounting, and customer service expenses. Staff allocated these costs to customer classes based on the number of customers in the class.

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

E. Revenues

Operating revenues consist of (1) the revenue that the utility collects from the sale of natural gas to Missouri retail customers ("rate revenues"), and (2) the revenue the utility receives for providing other services ("other revenues"). Staff uses rate revenues in developing its rate design recommendation and will use them to develop the rate schedules required to implement the Commission's ordered revenue requirement and rate design in this case. Staff, in its CCOS Study, used the normalized and annualized class rate revenues contained in Staff's COS Report filed April 19, 2019.

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

F. Allocation of Taxes

Taxes consist of real estate and property taxes, payroll tax expenses, and income taxes. Real estate and property tax expenses are directly related to the original cost investment in plant for Ameren Missouri; therefore, these expenses are allocated to customer classes on the basis of the sum of the previously allocated production, distribution, and general plant investment.

Payroll tax expenses are directly related to payroll expenses for Ameren Missouri, so these expenses are allocated to customer classes on the basis of previously allocated payroll expenses.

Lastly, Staff separately allocated income taxes for Ameren Missouri to customer classes based on the percentage of net income produced by each customer class.

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

IV. Rate Design

The process of determining how Ameren Missouri's non-gas revenue requirement will be allocated among the different customer classes is known as rate design. However, it is important to note that the non-gas revenue requirement affects only a portion of a customer's bill. The non-gas portion of the bill includes monthly customer and volumetric meter reading rates, also known as a customer charge and a delivery charge per Ccf. The PGA, which can be approximately half of a customer's bill depending on usage, is subject to provisions in Ameren Missouri's PGA tariffs.

Rate design is the method used to determine the rates and rate components to be charged to individual classes of customers. The following factors are of particular relevance to Staff's rate design in this case:

- Incorporating methods to implement in rates any Commission-ordered overall change in customer class revenue responsibility;

- Retaining, to the maximum extent possible, existing rate schedules and rate structures to minimize rate switching, except where Commission guidance or best practice indicates an appropriate departure.

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

A. Rate Design Recommendation

Staff's rate design recommendations in this case are:

- Set a Residential monthly Customer Charge of $17.00 with a flat volumetric Delivery Charge of approximately $0.28 per Ccf [7].
- For the General Service and Interruptible Service classes, Staff's recommended revenue requirement is consistent with the revenue generated by the permanent rates. Staff recommends no change to the existing permanent rate schedules.

- For the Large Volume and Standard Transportation classes, Staff recommends the existing customer charge, administrative charge, and aggregation and balancing charge for each class be held constant. The volumetric rate for these classes includes a two-block design, with usage for the first 7,000 Ccf consumed per month billed at a higher rate than the remaining Ccf.

  Staff recommends preserving the first block rate consistency that currently exists between these rate schedules.[8] For rate continuity it is important that the second block rate for the Large Volume class not be higher than the second block rate for the Standard Transportation class. Specifically, at Staff's recommended revenue requirement and class revenue responsibility levels, customers consuming more than 500,000 Ccf annually will benefit

[7] Staffs recommended flat volumetric Delivery Charge of approximately $.028 per Ccf is contingent on a flat PGA rate which is also consistent with Ameren Missouri's PGA rate design proposal in this case.

[8] At Staff's recommended revenue requirement and class revenue responsibility shifts, the first block charge in the Large Volume Transportation and Standard Transportation classes will be approximately $0.3026/Ccf.

from service on the Large Volume rate schedule as opposed to the Standard Transportation rate schedule.[9]

Incorporating Staff's recommended rate design and interclass shifts as described above for Ameren Missouri results in the rates below in Table 3 (for illustrative purposes only):

Table 3
Staff's Recommended Rate Structure

Residential	Current	Interim	Proposed
Customer Charge	$15.00	$15.00	$17.00
Delivery Charge			
0-30 Ccf	$0.7952	$0.7952	$ 0.2819
All over 30 Ccf	$0	$0	$ 0.2819
Residential Interim Rate Reduction		($0.0158)	
Total Residential Revenue	$45,035,732	$ 43,868,385	$ 45,035,732

General Service	Current	Interim	Proposed
Customer Charge	$ 28.83	$ 28.83	$ 28.83
Delivery Charge			
First 7,000 Ccf	$ 0.3089	$ 0.3089	$ 0.3089
Over 7,000 Ccf	$ 0.2023	$ 0.2023	$ 0.2023
General Serivce Interim Rate Reduction		$ (0.0112)	
Total General Service Revenue	$ 15,531,943	$ 15,124,761	$ 15,531,943

Interruptible Service	Current	Interim	Proposed
Customer Charge	$ 264.30	$ 264.30	$ 264.30
Delivery Charge			
First 7,000 Ccf	$ 0.3089	$ 0.3089	$ 0.3089
Over 7,000 Ccf	$ 0.1632	$ 0.1632	$ 0.1632
Interruptible Interim Rate Reduction		$ (0.0052)	
Total Interruptible Service Revenue	$ 391,092	$ 381,109	$ 391,092

[9] Tariff Sheet No. 11 provides that LVT customers are expected to transport 600,000 Ccf or greater.

Standard Transportation Service	Current	Interim	Proposed
Customer Charge	$ 28.72	$ 28.72	$ 28.72
Delivery Charge			
First 7,000 Ccf	$ 0.3089	$ 0.3089	$ 0.3026
Over 7,000 Ccf	$ 0.1728	$ 0.1728	$ 0.1468
Administrative Charge	$ 43.45	$ 43.45	$ 43.45
Aggregation and Balancing Charge	$ 0.0044	$ 0.0044	$ 0.0044
Standard Transportation Interim Rate Reduction		$ (0.0065)	
Total Standard Transportation Service Revenue	$ 7,868,505	$ 7,656,427	$ 7,320,753

Large Volume Transportation Service	Current	Interim	Proposed
Customer Charge	$ 1,451.53	$ 1,451.53	$ 1,451.53
Delivery Charge			
First 7,000 Ccf	$ 0.3089	$ 0.3089	$ 0.3026
Over 7,000 Ccf	$ 0.1484	$ 0.1484	$ 0.1440
Administrative Fee	$ 43.45	$ 43.45	$ 43.45
Aggregation and Balancing Charge	$ 0.0044	$ 0.0044	$ 0.0044
Large Volume Interim Rate Reduction		$ (0.0044)	
Total Standard Transportation Service Revenue	$ 5,415,316	$ 5,271,906	$ 5,271,906

Staff's specific rate recommendations provided above are highly dependent on the overall revenue requirement and on mitigation of customer impact. Staff will continue to evaluate the costs and revenues for each rate class, and if there are significant changes in cost drivers across rate classes, Staff will adjust the recommendation accordingly.

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

B. Alternative Rate Design Recommendation

As an alternative, based on guidance from the Commission in previous cases, Staff has prepared an inclining block Residential rate design. Selection of a policy-based inclining block rate design requires consideration of the delineations between the blocks, and the curve of the incline. Staff has designed a potential inclining block design with a volumetric charge of approximately $0.2762 per Ccf for the first 30 Ccf of usage each month, and approximately $0.2859 per Ccf for usage beyond 30 Ccf.

The relationship between these blocks is based on retaining the existing rate structure of 30 Ccf as the break-point between blocks, and the relationship between the recovery of the return on the company's investment allocated to the residential class as a cost of debt and the remaining return on equity. The Staff recommended residential revenue requirement, the total expenses allocated to the residential class, the total cost of long term debt allocated to the residential class, and the remaining equity-based recovery provided by the residential class are provided below.

Residential Recommended Revenue Requirement	$45,035,732
Residential allocated expenses net of other revenues	$35,116,884
Long-term debt revenue requirement	$ 3,623,833
Equity-based revenue requirement	$ 6,295,015

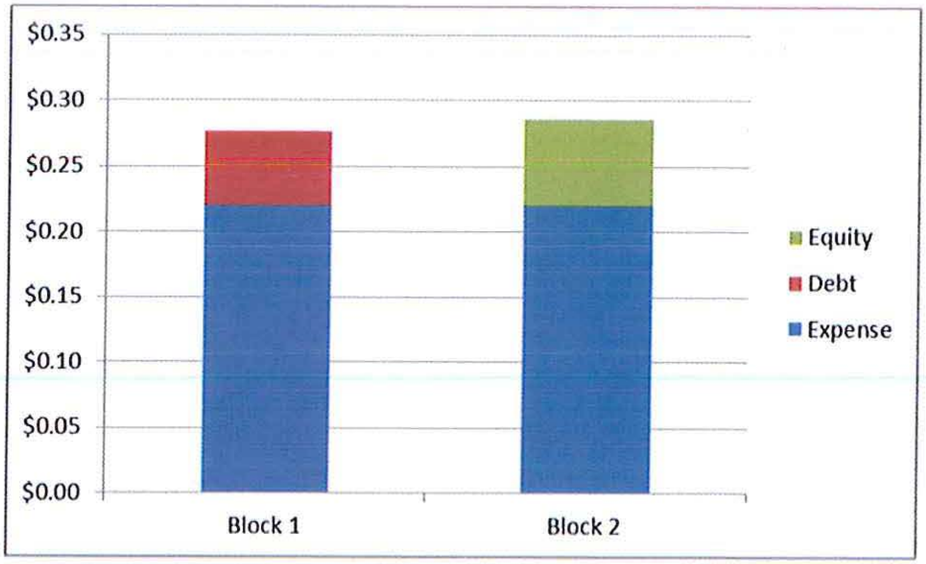
A $17.00 customer charge and the normalized and annualized residential class customer numbers will generate revenue of approximately $24,169,189 annually. Assuming this recovery is comprised of the class average relationship of debt, equity, and expense as the total residential class recommended recovery, the remaining dollars to be collected, by type, are provided below:

Customer charge recovery	$24,169,189
Expense for volumetric recovery	$16,270,813
Debt costs for volumetric recovery	$ 1,679,042
Equity costs for volumetric recovery	$ 2,916,688
Residential Class Recovery:	$45,035,732

Allocation of (1) expenses equally to all Ccfs sold, (2) debt costs to the Ccfs sold in the first block, and (3) equity recovery to the Ccfs sold in the second block, results in the rates provided above, as described below:

continued on next page

Incline Design (Debt-Equity)					
Expense Recovery/ccf in Block 1	*$*	*0.2199*	Block 1 ccf	Block 1 Recovery	
Debt Recovery /ccf in Block 1	*$*	*0.0563*			
Block 1 charge:	**$**	**0.2762**	29,816,369	$	8,235,349
Expense Recovery /ccf in Block 2	*$*	*0.2199*	Block 2 ccf	Block 2 Recovery	
Equity Recovyer /ccf in Block 2	*$*	*0.0660*			
Block 2 charge:	**$**	**0.2859**	44,179,028	$	12,631,194



Staff Experts/Witnesses: Sarah L.K. Lange, Robin Kliethermes and Kim Cox

C. Residential Rates

Currently, Ameren Missouri's residential rates consist of a customer charge and a volumetric delivery charge (with two tiers divided at the 30 Ccf monthly threshold) as shown below.

Table 4
Current Residential Tariffed Customer Charge and Delivery Charge

Customer Charge	$15.00 per month
Delivery charge 0-30 Ccf	79.52¢ per Ccf
All over 30 Ccf	0.00¢ per Ccf

Staff's CCOS found that using strict allocation, the cost to be recovered through the residential customer charge is approximately $18.00 per customer. However, Staff's recommended Residential customer charge in this case is $17.00. Since Staff's recommended revenue requirement change for the Residential class does not result in full movement to the class's cost of service a lower than calculated customer charge is not unreasonable. Staff included the below costs in the calculation of the residential customer charge:

- Distribution – services (investment and expenses)
- Distribution – meters and regulators (investment and expenses)
- Distribution – customer installations
- Customer deposits
- Customer billing expenses
- Uncollectible accounts (write-offs)
- Customer service & information expenses
- Portion of income taxes

Generally, the functionalization of the fully allocated cost of service is the preferred basis for designing the rates applicable to a given customer class. However, various public policy concerns, ranging from bill understandability to mitigating company disincentives to promote energy conservation, temper strict adherence to the seemingly precise results of these cost-causation studies.

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

V. Recommended improvements to residential customer bill format

Ameren Missouri's bill design fails to inform customers of the various charges that comprise a customer's bill for gas service. Staff recommends greater detail be incorporated, including, at a minimum, a breakout of the "Customer Charge." Staff recommends that remaining charges such as the Delivery Charge, PGA charge and any future ISRS charges be broken out in a manner that is most informative to customers while promoting understandability. For example, under Ameren Missouri's current declining block rate design there is significant potential for customer confusion if the interaction of the Delivery Charge and the PGA is not clearly presented. If the existing rate design or a similar variation is ordered to implement this rate case, Staff recommends the Delivery Charge and PGA Charge be presented on the bill as a single "Average charge per CCF," or similarly denominated amount that reflects the interaction of these components. If a rate design is implemented that includes some level of charge per Ccf for all Ccf sold, Staff recommends that the Delivery Charge (by block if applicable) and PGA charge (by block if applicable) be separately listed. This information will facilitate customer understanding of bills and bill management.

As seen in Figure 1 below, Ameren Missouri's current bill structure combines gas and non-gas charges as a single line item.

Figure 1. Sample Bill

Current Charge Detail for Statement 03/25/2019

Gas Charge – Residential	$61.20
Infrastructure Replacement Surcharge	$0.00
Missouri Local Sales Tax	$1.51
Columbia Municipal Charge	$4.54
Natural Gas Rate Reduction	$0.93
Amount Due	**$66.32**

Gas Service from 02/20/2019 - 03/21/2019 29 Days

	Meter Number	Current Reading	Previous Reading	Current Usage	Reading Type
G	00256827	006680	006621	59 CCF	Actual

Staff Experts/Witnesses: Robin Kliethermes and Kim Cox

VI. Weather Normalization Adjustment Rider

In the most recent Spire East and Spire West rate cases,[10] the Commission determined that Staff's modified example tariff for a Weather Normalization Adjustment Rider ("WNAR") tariff was in the public interest and was just and reasonable.[11] The Commission also approved a similar WNAR tariff that was part of the Stipulation and Agreement in the most recent Liberty Utilities rate case.[12]

[10] Case Nos. GR-2017-0215 and GR-2017-0216, respectively.
[11] Report and Order, Case Nos. GR-2017-0215 and GR-2017-0216, issued on February 21, 2018, page 85.
[12] Order Approving Stipulation and Agreement, Case No. GR-2018-0013, issued on June 6, 2018. See specific reference to the WNAR on page 2.

Upon advice of Staff Counsel, the authorizing statute for the WNAR is Section 386.266.3 RSMo. It reads[13]:

> Subject to the requirements of this section, any gas or electrical corporation may make an application to the commission to approve rate schedules authorizing periodic rate adjustments outside of general rate proceedings to adjust rates of customers in eligible customer classes to account for the impact on utility revenues of increases or decreases in residential and commercial customer usage due to variations in either weather, conservation, or both...For purposes of this section...for gas corporations, "eligible customer classes" means the residential class and the smallest general service class. As used in this subsection, "revenues" means the revenues recovered through base rates, and does not include revenues collected through a rate adjustment mechanism authorized by this section or any other provisions of law...

Should the Commission determine that a mechanism to account for changes in usage due to variations in either weather or conservation is in the public interest and is just and reasonable in this case, Staff recommends approving a weather normalization adjustment rider similar to the example tariff sheets attached as Appendix 2, Schedule MLS-d1 and described in more detail below.

Staff's proposed rider adjusts rates for the residential class customers on the basis of Staff's calculation of normal weather, which is defined in the direct testimony of Seoung Joun Won within Staff's Cost of Service Direct Report. Dr. Won's testimony includes the method of ranking the thirty-year monthly normals to the actual weather of a given period. Staff's recommended WNAR design does not explicitly include an adjustment for changes in conservation since it can be difficult to define or accurately quantify.

The authorizing statute, Section 386.266.3 RSMo, defines the "eligible customer classes" as the residential class and the smallest general service class. Ameren Missouri has only one general service class, thus there is no "smallest" general service class. As can be seen in Table 5, there are several customers in this class that have usage that exceeds what would be expected of typical residential monthly usage. Therefore, the example tariff attached as Appendix 2, Schedule MLS-d1 is limited to residential customers only. Table 5 is the cumulative frequency distribution of customers in the general service class.

[13] Some portions pertaining to electric corporations are omitted.

Table 5

Monthly Usage Distribution for Ameren Missouri's General Service Class	
Less than 100 CCF a month	7,754
Greater than 100 CCF but less than 500	4,082
Greater than 500 CCF but less than 2,000	1,146
Greater than 2000 CCF but less than 5,000	157
Greater than 5000 CCF but less than 10,000	21
Greater than 10,000 CCF a month	12

The example tariff sheets attached as Appendix 2, Schedule MLS-d1 also include provisions for an annual true-up which would remedy any over- or under-collections, including interest at the utility's short-term borrowing rate, through subsequent rate adjustments or refunds.

Staff Expert/Witness: Michael L. Stahlman

VII. Special Contract Rates – Transportation Service Recommendation

Staff recommends increasing the specificity of provisions contained in Ameren Missouri's SCR tariff found at Sheet No. 18.1. Staff's recommended language is provided in Appendix 2, Schedule RK-d1.

Staff Expert/Witness: Robin Kliethermes

VIII. Appendices

Appendix 1 – Staff Credentials

Appendix 2 – Other Staff Schedules

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Natural Gas Service	)))	Case No. GR-2019-0077

AFFIDAVIT OF DANIEL I. BECK, PE

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW DANIEL I. BECK, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report – Class Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Daniel I Beck

DANIEL I. BECK, PE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 2nd day of May 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Natural Gas Service	)))	Case No. GR-2019-0077

AFFIDAVIT OF KIM COX

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW KIM COX and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report – Class Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Kim Cox
KIM COX

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 2nd day of May 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Natural Gas Service	)))	Case No. GR-2019-0077

AFFIDAVIT OF NATELLE DIETRICH

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW NATELLE DIETRICH and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report – Class Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Natelle Dietrich
NATELLE DIETRICH

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 1st day of May 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Natural Gas Service	)))	Case No. GR-2019-0077

AFFIDAVIT OF ROBIN KLIETHERMES

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW ROBIN KLIETHERMES and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report – Class Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Robin Kliethermes

ROBIN KLIETHERMES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 2nd day of May 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Natural Gas Service	)))	Case No. GR-2019-0077

AFFIDAVIT OF SARAH L.K. LANGE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SARAH L.K. LANGE and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report – Class Cost of Service*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Sarah L.K. Lange

SARAH L.K. LANGE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 2nd day of May 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D. Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Natural Gas Service	)))	Case No. GR-2019-0077

AFFIDAVIT OF MICHAEL L. STAHLMAN

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW MICHAEL L. STAHLMAN and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report – Class Cost of Service*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

MICHAEL L. STAHLMAN

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 2nd day of May 2019.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public