Exhibit No.:	
Issues:	*Rate Design*
	Class Cost-of-Service
Witness:	*Sarah L. Kliethermes*
Sponsoring Party:	*MO PSC Staff*
Type of Exhibit:	*Direct Testimony*
Case No.:	*ER-2016-0023*
Date Testimony Prepared:	*April 8, 2016*

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

DIRECT TESTIMONY

OF

SARAH L. KLIETHERMES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2016-0023

Jefferson City, Missouri
April 2016

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SARAH L. KLIETHERMES

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Q. Please state your name and business address.

A. My name is Sarah L. Kliethermes and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. Who is your employer and what is your present position?

A. I am employed by the Missouri Public Service Commission ("Commission") and my title is Regulatory Economist III, Tariff/Rate Design Unit, Operational Analysis Department, Commission Staff Division.

Q. Have you provided your educational background and work experience in this file?

A. Yes. My educational and work experience were provided in Appendix 1 of the Staff's *Revenue Requirement Report* filed March 25, 2016.

EXECUTIVE SUMMARY

Q. What is the purpose of your direct testimony?

A. The purpose of this testimony is to sponsor the Staff's recommended Rate Design developed by Staff as described in the *Rate Design and Class Cost-of-Service Report* ("*CCOS Report*") that is concurrently filed with this direct testimony. The *CCOS Report* also includes Staff's recommendations concerning The Empire District Electric Company's ("Empire") Fuel and Purchased Power Clause, and other tariff provisions.

Q. What is basis of the costs Staff allocated by Staff's CCOS study?

A. Staff filed its *Revenue Requirement Report* on March 25, 2016. Staff's recommended revenue requirement for Empire is $20,913,732 based on the midpoint of the return on equity (ROE) range of 9.25% to 9.75%, and including an estimate for changes expected through the true-up date of March 31, 2016.[1]

For purposes of its class cost of service study ("Study") and corresponding rate design recommendations, Staff relied on these valuations provided in Staff's *Revenue Requirement Report.*[2]

RATE DESIGN AND CLASS COST-OF-SERVICE

Q. What are Staff's rate design recommendations to the Commission for Empire in this case?

A. As explained in its *CCOS Report*, Staff recommends that the allocation of any ordered rate increase for Empire occur using a five-step process:[3]

[1] As part of this case, Empire is requesting recognition in rate base of the conversion of its Riverton Unit 12 Combustion Turbine ("CT") unit into a Combined Cycle ("CC") unit with a Heat Recovery Steam Generator ("HRSG").

[2] Staff's *CCOS Study* and rate design recommendation are based on a scenario that assumes the operation of the Riverton 12 HRSG. Staff has also calculated production allocators for a scenario under which continued operation of Riverton 12 as a CT is assumed.

[3] Empire has twelve (12) active service classifications. The active service classifications are (1) residential service schedule RG ("RG"), (2) commercial service schedule CB ("CB"), (3) small heating service schedule SH ("SH"), (4) general power service schedule GP ("GP"), (5) Special Transmission service contract: Praxair schedule SC-P ("SC-P"), (6) total electric building service schedule TEB ("TEB"), (7) feed mill and grain elevator service schedule PFM ("PFM"), (8) large power service schedule LP ("LP"), (9) miscellaneous service schedule MS ("MS"), (10) municipal street lighting service schedule SPL ("SPL"), (11) private lighting service schedule PL ("PL"), and (12) special lighting service schedule LS ("LS"). Staff combined the MS, SPL, PL, and the LS rate classifications for purposes of its CCOS study because rate schedules pertain to lighting and miscellaneous functions. Staff used Empire's rate schedules for the customer classes in its CCOS study. However, Staff combined the MS, SPL, PL, and the LS rate classifications for purposes of its CCOS study because these rate classifications pertain to street and outdoor lighting functions. This consolidation resulted in Staff's nine customer classes. The nine customer classes are (1) RG, (2) CB, (3) SH, (4) GP, (5) SC-P, (6) TEB, (7) PFM, (8) LP, and (9) lighting service. For each of these nine customer classes, Staff determined Empire's investment to serve the customers in that customer class and Empire's ongoing expenses to serve the customers in that customer class.

1. Based on Staff's CCOS results at the studied revenue requirement, Staff recommends a revenue neutral shift in revenue responsibility from the General Power ("GP") class to the Residential class. "Revenue neutral" means that the revenue shifts among classes do not change the utility's total system revenues. Specifically, Staff recommends the Residential class's revenue responsibility be increased by $3,855,000 at Staff's recommended revenue requirement, with a reduction to the GP class's revenue responsibility of $3,855,000.[4]

2. Staff allocates the portion of the revenue increase/decrease that is attributable to energy efficiency ("EE") programs from Pre-MEEIA ("Missouri Energy Efficiency Investment Act") program costs to applicable classes based on that class's level of kWh less opt-out customers.[5]

3. Staff determined the amount of revenue increase awarded to Empire not associated with the EE revenue from Pre-MEEIA revenue requirement assigned in Step 2, by subtracting the total amount in Step 2 from the total increase awarded to Empire. Staff recommends allocating this amount to various customer classes as an equal percent of current base revenues after making the adjustment in Step 1. Based on Study results, Staff recommends that the PFM and combined lighting classes receive no retail increase as existing revenues received from these classes are providing more revenue to Empire than Empire's cost to serve.

4. Staff recommends the Residential Customer Charge be set at $15.00. This is a $2.48 increase in the customer charge and since it is above the system average increase, the applicable energy charges will have a below system average increase. With that exception, Staff generally recommends that each rate component of each class increase across-the-board for each class on an equal percentage basis after consideration of steps 1 through 4 above. Staff also recommends minor clean-up adjustments to return consistency to charges that have become slightly misaligned.

5. Adopt Rider Fuel and Purchased Power Adjustment Clause ("FAC") tariff sheets consistent with Staff *CCOS Report*.

Q. Is Staff recommending that each class have its revenue responsibility shifted to exactly equal its cost of service as determined through Staff's Study?

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[4] Expressed as percentages, this is a 1.85% revenue neutral increase to the Residential class, and a 4.31% reduction to the GP class.

[5] The Pre-MEEIA program costs consist of the program costs for increases/decreases in the revenue requirement associated with the amortization of Pre-MEEIA program costs.

A. No. Because of the relative rate impacts and the general imprecision of any class cost of service study, Staff is not recommending a movement all the way to each class's Study-determined cost of service. Staff's recommended adjustments bring certain classes closer to the cost of serving them at an equalized rate of return, while giving due consideration to rate continuity, rate stability, revenue stability, public policy, meeting of incremental costs, and minimizing rate shifts and rate shock. Staff's recommendations for shifts in the class-revenue requirements rely on its Study results, Staff's review of Empire's revenue-neutral adjustments in previous general rate increases, and Staff's judgment regarding the impact and reasonableness of revenue shifts for all classes.

Q. What factors should be kept in mind in evaluating the reasonableness of interclass shifts?

A. In the course of making interclass shifts, Staff recommends the Commission be mindful of a number of things:

1. 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.

2. CCOS studies should serve as a guide to setting revenue requirements and are not precise. 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 as well as the direst-filed billing determinants in setting the revenue requirement in a particular case, there is an inherent disconnect between the CCOS study results used in providing a party's class cost of service and rate design recommendations, and the actual class cost of service that would result at the conclusion of a case.

3. Consideration of policy, such as rate continuity, rate stability, revenue stability, minimization of rate shock to any one-customer class, meeting of incremental costs, and consideration of promotional practices are also taken into account in Staff's ultimate recommendation of Empire class revenue recovery through rate design. Staff endeavors to provide methods to

implement in rates any Commission-ordered overall change in customer revenue responsibility promoting revenue stability and efficiency. Staff must also balance this, to the extent possible, 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, and mitigate the potential for rate shock. Rate schedules should be understood by all parties, customers, and the utility as to proper application and interpretation.

4. Staff endeavors to provide the Commission with a rate design recommendation based on each customer class's relative cost-of-service responsibility and yield the total revenue requirement to all classes in a fair manner avoiding undue discrimination, including methods to recover both fixed and variable costs in a timely manner. This ensures Empire receives an amount above its marginal costs on sales of electricity, and each class is providing a contribution to cover fixed costs.

5. In providing its rate design recommendation, Staff will recommend revenue-neutral shifts so that once the rate increase has been applied, a given class does not underpay by greater than 5% of its revenue requirement while another class or classes overpay by greater than 5% of its revenue requirement.

Q. What are Staff's Study results?

A. Staff's Study indicates that each class is providing the indicated rates of return on the investment Empire has made to provide service to that class:

	Start % over/under contribution	% Change to Class Revenue to Exactly Match Cost of Service	Start RoR
Residential	-10.23%	11.23%	3.94%
Commercial Service	0.10%	-0.09%	7.52%
Small Heating	-6.79%	7.18%	5.19%
Electric Building	-4.29%	4.41%	6.06%
General Power	6.39%	-5.91%	9.81%
Large Power	-4.35%	4.46%	5.89%
Special Contract	-5.73%	5.94%	5.30%
Feed Mill	27.71%	-21.52%	18.36%
Lighting	49.68%	-33.19%	22.64%

Q. What do the signs on the above percentages indicate?

A. A positive contribution percent indicates that revenue from the customer class exceeds the cost of providing service to that class at an equalized rate of return. Thus, to equalize revenues and cost of service, rate revenues would be reduced, meaning that the class is over-contributing to the utility's return. A negative contribution percent indicates revenue from the class is less than the cost of providing service to that class at an equal rate of return; therefore, to equalize revenues and cost of service, rate revenues would be increased, i.e., the class is under-contributing to the rate of return. In rare instances, a class will fail to provide revenues sufficient to match the non-capital-related expenses assigned and allocated to that class. In those instances, a class will provide a negative rate of return. If a class fails to provide revenues sufficient to meet variable expenses, that is properly known as a "subsidy."

Q. Are any classes failing to produce a positive rate of return on current rates?

A. No.

Q. What rates of return will each class produce after Staff's recommended interclass shifts?

A. After reducing the GP revenue requirement and increasing the Residential revenue requirement on a revenue neutral basis, and increasing customer classes to collect the additional revenue requirement as discussed above, the below graph provides the resulting rates of return per class:

	Start % over/under contribution	Revenue Responsibility Shift	Retail Increase + Energy Efficiency	End % over/under contribution	End RoR	% Increase
Residential	-10.23%	$3,855,000	$ 9,954,656	-4.28%	6.00%	6.62%
Commercial Service	0.10%	$0	$ 2,015,241	4.78%	9.33%	4.68%
Small Heating	-6.79%	$0	$ 488,472	-2.41%	6.67%	4.69%
Electric Building	-4.29%	$0	$ 1,757,242	0.21%	7.55%	4.70%
General Power	6.39%	-$3,855,000	$ 4,022,688	6.59%	9.89%	0.19%
Large Power	-4.35%	$0	$ 2,476,860	0.07%	7.51%	4.62%
Special Contract	-5.73%	$0	$ 198,487	-1.40%	6.95%	4.59%
Feed Mill	27.71%	$0	$ 87	27.80%	18.39%	0.08%
Lighting	49.68%	$0	$ -	49.68%	22.64%	0.00%

Q. If additional investment at Riverton 12 is not added to Empire's rate base, what interclass shifts are appropriate?

A. None at this time.

Q. Are Staff's CCOS Study, rate design recommendation, Fuel and Purchased Power Clause recommendation, and other tariff recommendations fully described by the relevant expert witnesses in the Staff's *CCOS Report*?

A. Yes.

Q. Does this conclude your direct testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric Company's Request for Authority to Implement a General Rate Increase for Electric Service	)))	Case No. ER-2016-0023

AFFIDAVIT OF SARAH L. KLIETHERMES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SARAH L. KLIETHERMES and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing DIRECT TESTIMONY; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Sarah Kliet
SARAH L. 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 7th day of April, 2016.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070

D Suzie Mankin
Notary Public