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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

Staff Exhibit No. 15
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SARAH L. KLIETHERMES

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1 DIRECT TESTIMONY

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3 SARAH L. KLIETHERMES

4 THE EMPIRE DISTRICT ELECTRIC COMPANY

5 CASE NO. ER-2016-0023

6 Q. Please state your name and business address.

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

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

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

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

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

17 EXECUTIVE SUMMARY

18 Q. What is the purpose of your direct testimony?

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

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

2 A. Staff filed its *Revenue Requirement Report* on March 25, 2016. Staff's
3 recommended revenue requirement for Empire is \$20,913,732 based on the midpoint of the
4 return on equity (ROE) range of 9.25% to 9.75%, and including an estimate for changes
5 expected through the true-up date of March 31, 2016.¹

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

9 **RATE DESIGN AND CLASS COST-OF-SERVICE**

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

12 A. As explained in its *CCOS Report*, Staff recommends that the allocation of any
13 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 1. Based on Staff's CCOS results at the studied revenue requirement,
2 Staff recommends a revenue neutral shift in revenue responsibility from the
3 General Power ("GP") class to the Residential class. "Revenue neutral"
4 means that the revenue shifts among classes do not change the utility's
5 total system revenues. Specifically, Staff recommends the Residential
6 class's revenue responsibility be increased by \$3,855,000 at Staff's
7 recommended revenue requirement, with a reduction to the GP class's
8 revenue responsibility of \$3,855,000.⁴
- 9 2. Staff allocates the portion of the revenue increase/decrease that is
10 attributable to energy efficiency ("EE") programs from Pre-MEEIA
11 ("Missouri Energy Efficiency Investment Act") program costs to applicable
12 classes based on that class's level of kWh less opt-out customers.⁵
- 13 3. Staff determined the amount of revenue increase awarded to Empire not
14 associated with the EE revenue from Pre-MEEIA revenue requirement
15 assigned in Step 2, by subtracting the total amount in Step 2 from the total
16 increase awarded to Empire. Staff recommends allocating this amount to
17 various customer classes as an equal percent of current base revenues after
18 making the adjustment in Step 1. Based on Study results, Staff
19 recommends that the PFM and combined lighting classes receive no retail
20 increase as existing revenues received from these classes are providing
21 more revenue to Empire than Empire's cost to serve.
- 22 4. Staff recommends the Residential Customer Charge be set at \$15.00. This is
23 a \$2.48 increase in the customer charge and since it is above the system
24 average increase, the applicable energy charges will have a below system
25 average increase. With that exception, Staff generally recommends that
26 each rate component of each class increase across-the-board for each class
27 on an equal percentage basis after consideration of steps 1 through 4 above.
28 Staff also recommends minor clean-up adjustments to return consistency to
29 charges that have become slightly misaligned.
- 30 5. Adopt Rider Fuel and Purchased Power Adjustment Clause ("FAC") tariff
31 sheets consistent with Staff *CCOS Report*.
- 32 Q. Is Staff recommending that each class have its revenue responsibility shifted to
33 exactly equal its cost of service as determined through Staff's Study?

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.

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

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

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

- 14 1. In a general rate case resulting in an increase in a utility's overall revenue
15 requirement, Staff is reluctant to recommend reducing any class's rates
16 while the overall revenue requirement is increasing.
- 17 2. CCOS studies should serve as a guide to setting revenue requirements and
18 are not precise. For example, CCOS studies are based on a direct-filed
19 revenue requirement, and the allocation of that revenue requirement among
20 specific accounts, using a specific rate of return. Unless the Commission
21 approves that exact set of Accounting Schedules as well as the direct-filed
22 billing determinants in setting the revenue requirement in a particular case,
23 there is an inherent disconnect between the CCOS study results used in
24 providing a party's class cost of service and rate design recommendations,
25 and the actual class cost of service that would result at the conclusion of a
26 case.
- 27 3. Consideration of policy, such as rate continuity, rate stability, revenue
28 stability, minimization of rate shock to any one-customer class, meeting of
29 incremental costs, and consideration of promotional practices are also taken
30 into account in Staff's ultimate recommendation of Empire class revenue
31 recovery through rate design. Staff endeavors to provide methods to

1 implement in rates any Commission-ordered overall change in customer
2 revenue responsibility promoting revenue stability and efficiency. Staff
3 must also balance this, to the extent possible, retaining existing rate
4 schedules, rate structures, and important features of the current rate design
5 that reduce the number of customers that switch rates looking for the lowest
6 bill, and mitigate the potential for rate shock. Rate schedules should be
7 understood by all parties, customers, and the utility as to proper application
8 and interpretation.

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

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

21 Q. What are Staff's Study results?

22 A. Staff's Study indicates that each class is providing the indicated rates of return
23 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%

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

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

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

13 A. No.

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

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

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	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.

