



1 **Q. Please state your name and business address.**

2 A. Brian Kalcic, 225 S. Meramec Avenue, St. Louis, Missouri 63105.

3

4 **Q. What is your occupation?**

5 A. I am an economist and consultant in the field of public utility regulation, and principal of  
6 Excel Consulting. My qualifications are described in the Appendix to this testimony.

7

8 **Q. On whose behalf are you testifying in this case?**

9 A. I am testifying on behalf of the Citizens' Utility Ratepayer Board ("CURB").

10

11 **Q. What is the subject of your testimony?**

12 A. I will review the current and proposed residential rate design of The Empire District  
13 Electric Company ("Empire" or the "Company"). Consistent with the approved rate design  
14 submitted with the Stipulation and Agreement in Empire's rate proceeding at Docket No.  
15 10-EPDE-314-RTS ("Docket 314"), I will sponsor a more conservation-oriented residential  
16 rate design to be implemented at the conclusion of this proceeding.

17 In addition, I will discuss the Company's proposed small general service ("SGS")  
18 rate design, and sponsor conservation-oriented changes, where appropriate.

19

20 **Q. Have you reflected CURB witness Andrea C. Crane's recommended revenue  
21 adjustment for Empire to illustrate your alternative rate design proposals?**

22 A. Yes, I have.

23

1 **Q. Please summarize your primary recommendations.**

2 A. Based upon my analysis of Empire's filing and interrogatory responses, I recommend that  
3 the Kansas Corporation Commission ("KCC" or "Commission"):

- 4 • reject the Company's proposed residential rate design;
- 5 • adopt CURB's recommended residential rate design guidelines, which  
6 would (i) leave the existing customer charge unchanged and (ii) continue the  
7 phase-out of the Company's declining block energy charges from Docket  
8 314, so as to promote conservation;
- 9 • reject Empire's proposed SGS rate design; and
- 10 • adopt CURB's recommended SGS rate design guidelines, which would  
11 likewise continue the phase-out of the Company's SGS declining block  
12 energy charges from Docket 314.

13 The specific details associated with the above recommendations are discussed below.  
14

15 **Q. Is CURB sponsoring an alternative class cost-of-service study ("COSS") and/or class  
16 revenue allocation proposal in this proceeding?**

17 A. No. CURB recommends that the Commission adopt Staff's COSS for the purpose of  
18 determining an appropriate allocation of Empire's awarded base revenue adjustment in this  
19 case.  
20

21 **Residential Rate Structure**

22 **Q. Mr. Kalcic, please provide a brief description of Empire's current residential service  
23 rate schedules.**

1 A. The Company serves residential customers via two (2) rate schedules: a) Residential  
2 Service (RG); and b) Residential Total Electric Service (RH). In addition, Empire offers a  
3 separate (discounted) rate to RG customers that use an electric water heater (RGW). The  
4 majority (67.8%) of Empire's residential customers take service under Rate RG.

5 The RG rate schedule contains a customer charge and a declining-block energy  
6 charge, which is not seasonally differentiated. Approximately 9.3% of residential  
7 customers are eligible for the Company's RGW water heating rate, which includes an 8.0%  
8 discount (off of the corresponding RG rate) for the first 600 kWh used each month. All  
9 RGW customers pay the same rate as RG customers for usage in excess of 600 kWh per  
10 month.

11 Finally, the separate RH rate schedule contains a customer charge and a flat rate  
12 energy charge that is not seasonally differentiated.

13

14 **Q. Does the Company propose to revise its residential rate structure in this proceeding?**

15 A. No, it does not.

16

17 **Q. Have you provided a summary of the Company's proposed residential rate design in**  
18 **this case?**

19 A. Yes, I have. The Company's present and proposed residential base rate charges are  
20 summarized in Schedule BK-1. As shown in column 4 of Schedule BK-1, Empire is  
21 proposing (i) to assign an approximate 21.4% increase to the residential customer charge,  
22 (ii) and approximate residual increases of 15.8% to 16.4% to its applicable base rate energy

1 charges. The overall increase assigned to the aggregate residential class under the  
2 Company's proposal is approximately 16.1%.

3  
4 **Q. Why is Empire proposing to assign a greater than class average increase to the**  
5 **residential customer charge?**

6 A. According to the Company's COSS, the "basic" cost-based customer charge for residential  
7 customers is \$18.04 per month, while the "fully-loaded" cost is \$32.26.<sup>1</sup> As shown in  
8 Schedule BK-1, the current residential customer charge of \$14.00 is below both of  
9 Empire's cost-of-service benchmarks. As such, the Company is proposing to assign a  
10 greater than proportional increase to the customer charge in order to better align residential  
11 customer charge revenues with the residential customer-related costs incurred by Empire.

12  
13 **Q. Does CURB agree that an increase to the residential customer charge is appropriate**  
14 **in this case?**

15 A. No.

16  
17 **Q. Why not?**

18 A. CURB disagrees with the Company's calculation of its residential customer charge cost  
19 benchmarks. In CURB's view, Empire's directly incurred customer-related costs are  
20 comprised only of those costs that vary with the number of customers served, such as the  
21 costs associated with meters, meter reading, service lines, billing and customer service.

---

<sup>1</sup> The Company calculates both "basic" and "fully-loaded" customer charge cost benchmarks. The basic cost benchmark includes only those costs *directly* classified as customer related, while the fully-loaded cost benchmark includes costs both *directly* and *indirectly* classified as customer related in the Company's COSS.

1 Correspondingly, Empire's customer charges should be limited to the recovery of its  
2 appropriately quantified direct customer-related costs.

3

4 **Q. Have you quantified the direct customer-related costs incurred by Empire to serve**  
5 **residential customers?**

6 A. Yes, in Schedule BK-2.

7

8 **Q. Please discuss Schedule BK-2.**

9 A. Schedule BK-2 shows the categories of direct customer-related costs incurred by Empire on  
10 a total company basis (column 1), and as allocated to residential customers (columns 2-5)  
11 in the Company's COSS. Briefly, such costs include: a) the revenue requirement  
12 associated with Empire's applicable rate base (i.e., meters and services) (line 22); b)  
13 operation and maintenance expenses associated with meters and services, and customer  
14 accounting and service expenses (line 23); and c) applicable depreciation expense (line 24).  
15 As shown on line 27 of Schedule BK-2, the direct customer-related costs incurred by  
16 Empire to service residential customers is \$10.70 per month, at the Company's claimed  
17 revenue requirement level.

18

19 **Q. Does CURB recommend that the KCC order Empire to implement a residential**  
20 **customer charge of \$10.70 per month at the conclusion of this proceeding?**

21 A. No. In recognition of Empire's desire to recover a greater proportion of fixed costs in fixed  
22 service charges, CURB recommends that the current residential customer charges of \$14.00

1 remain unchanged, and that the KCC order Empire to implement any residential revenue  
2 adjustment solely through an adjustment to energy charges.

3

4 **Q. Does CURB agree with the Company's proposed increases to RG and RGW energy**  
5 **charges in this proceeding?**

6 A. No, because Empire's proposed increases maintain the Company's existing declining block  
7 rate structure, which fails to provide appropriate price signals to consumers to conserve  
8 electricity.

9

10 **Q. How does a declining block rate structure discourage conservation?**

11 A. As currently configured, the Company's tariff provides a *discount* for increased  
12 consumption, beginning with the 601<sup>st</sup> kWh consumed by an RG or RGW customer in a  
13 given month. Such discounts, which are available year round, encourage rather than  
14 discourage consumption, and thus send the wrong price signal to customers.

15

16 **Q. Why does CURB believe that it is appropriate to move toward a more conservation-**  
17 **oriented residential rate structure in this case?**

18 A. CURB's Consumer Counsel informs me that the Commission has authority to adjust utility  
19 rate structures to accomplish desired goals such as conservation. As a matter of public  
20 policy, it is CURB's position that the Commission can, and should encourage conservation  
21 by revising existing rate structures to provide stronger conservation-oriented price signals.  
22 Greater conservation, if achieved, will help consumers manage rising electric utility bills in  
23 the coming years and delay the need for additional generation capacity.

1

2 **Q. Does CURB recommend eliminating all of Empire's declining block residential rates**  
3 **in this proceeding?**

4 A. Not for Rate RG customers. As I discuss below, CURB recommends continuing the phase-  
5 out of the Company's declining block energy charges that began with Empire's base rate  
6 case in Docket 314, by eliminating 50% of the remaining declining block discount for RG  
7 customers in this case.

8

9 **Q. Does CURB recommend a specific reduction to the RGW declining block discount?**

10 A. No. Since RG and RGW pay the same energy charge for usage in excess of 600 kWh per  
11 month, the rate design for the RGW subclass is determined, in part, by the second block  
12 energy charge increase/decrease that is necessary to reduce the existing RG declining block  
13 discount by 50%. In short, the percentage of the existing RGW declining block discount  
14 eliminated in this case cannot be set independently, but instead will vary according to the  
15 Commission's determination of the residential class's final revenue requirement level in  
16 this proceeding.

17

18 **Q. Have you prepared an alternative residential rate design and proof of revenue to**  
19 **illustrate CURB's residential rate design proposals in this proceeding?**

20 A. Yes, I have. Schedule BK-3 illustrates CURB's recommended residential rate design at  
21 Ms. Crane's recommended revenue requirement level.

22

23 **Q. Please describe Schedule BK-3.**



1 A. Schedule BK-3 consists of six (6) columns. Column 1 contains the Company's pro forma  
2 residential billing determinants. Column 2 shows the Company's present base rates.  
3 Column 3 shows the present revenue that is derived from multiplying the pro forma billing  
4 determinants in column 1 by the present rates shown in column 2. CURB's illustrative  
5 rates are shown in column 4, and the resulting illustrative revenue is provided in column 5.  
6 Finally, column 6 shows the percentage change in revenues under CURB's illustrative rate  
7 design.

8 As shown on line 13, columns 5-6 of Schedule BK-3, CURB's illustrative rate  
9 design would produce total residential base rate revenues of \$7.877 million, which equates  
10 to a base rate decrease of 2.08%.

11

12 **Q. How did you determine the Residential revenue requirement target decrease of 2.08%**  
13 **used in Schedule BK-3?**

14 A. For illustrative purposes only, I scaled back the class revenue adjustments shown in  
15 Company's proposed revenue allocation, which allocates a total base rate revenue increase  
16 of \$1.690 million or 10.0%, so as to implement Ms. Crane's recommended base rate  
17 revenue decrease of \$0.851 million or -5.1%, as shown in Table 1 below. More  
18 specifically, since Ms. Crane is recommending an overall base rate decrease in this case, I  
19 assigned those rate classes that receive the highest increase (i.e., 1.6 times the system  
20 average or 16.0%) under Empire's proposal, the corresponding smallest *decrease* (i.e., 0.4  
21 times the system average or 2.0%) at Ms. Crane's recommended revenue requirement level.

1 I assigned similar types of relative decreases to Empire’s remaining rate classes so as to  
 2 “mirror” the relative class increases assigned under the Company’s proposal.<sup>2</sup>

3  
 4 **TABLE 1**

5 Empire’s Proposed Class Base Revenue Adjustments  
 6 Scaled to Reflect CURB’s Recommended Base Revenue Decrease

7

<i>Rate Class</i>	<i>Empire Proposed Revenue Increase</i>	<i>Empire Proposal Scaled to -\$0.851 m.</i>
	(1)	(2)
Res - RG	\$821,489	\$(103,448)
Res - RGW	131,342	(16,540)
Res - RH	377,559	(47,545)
SGS - CB	71,253	(143,787)
SGS - SH	12,311	(17,699)
Gen. Power - GP	0	(313,574)
Tot Elec Bldg - TEB	25,195	(50,842)
Trans. - PT	219,584	(110,398)
Str Light - SPL	28,078	(3,536)
Priv Light - PL	0	(43,461)
Spec Light - LS	<u>3,088</u>	<u>(389)</u>
Total	\$1,689,898	\$(851,219)

8 Source: Exhibit TSL-6.

9  
 10 **Q. Please explain how you developed CURB’s illustrative residential rates shown in**  
 11 **column 4 of Schedule BK-3.**

12 A. I used the following steps to illustrate CURB’s recommended rate design:

- 13 1. Set the target decrease for each residential subclass at 2.0%;  
 14 2. Leave the existing Residential customer charge unchanged;

<sup>2</sup> Under the Company’s revenue allocation proposal, rate classes receive increases ranging from 0 (Rates GP and PL) to 1.6 (Rates RG, RGW, RH, SPL and LS) times the system average. Under CURB’s illustrative proposal in Table 1, rate classes receive correspondingly ranked *decreases* ranging from 0.4 (Rates RG, RGW, RH, SPL and LS) to 2.1 (Rates GP and PL) times the system average.



Table 2B

Percentage Reduction in Rate RGW Declining Block Discount  
Under CURB's Rate Design

<i>Rate Block</i>	<i>Present Rates</i>	<i>Illustrative Rates</i>	<i>Percent Reduction</i>
	(1)	(2)	(3)
0 – 600 kWh	\$0.06309	\$0.05933	
All Add'l kWh	<b><u>\$0.06112</u></b>	<b><u>\$0.06123</u></b>	
Difference	(\$0.00197)	\$0.00190	100.0%

Source: Schedule BK-3

7 **Q. Would Rate RGW customers retain their *first block* discount off the RG first block**  
8 **rate (for electric water heating) under CURB's illustrative rate design?**

9 A. Yes, they would.

11 **Q. Does CURB's illustrative residential rate design shown in Schedule BK-3 implement a**  
12 **uniform decrease to all residential subclasses, as intended?**

13 A. Yes. As shown in Schedule BK-4, all subclasses receive a uniform decrease of  
14 approximately 2.0%.

16 **Q. Mr. Kalcic, how should the Commission implement its final residential revenue**  
17 **adjustment in this proceeding?**

18 A. Once the KCC determines its final residential revenue adjustment (in place of CURB's  
19 illustrative residential class decrease of 2.08%), CURB recommends that the Commission  
20 order Empire to develop final residential rates via the previously discussed Steps 2-5.

1        **SGS Rate Structure**

2        **Q. Mr. Kalcic, please provide a brief description of the Company's current SGS rate**  
3        **schedules.**

4        A. For purposes of this proceeding, Empire's SGS class may be defined to include the  
5        following two rate schedules: a) Commercial Service (CB); and b) Small Heating Service  
6        (SH). The CB rate schedule is available to non-residential customers with an electric load  
7        less than or equal to 40 kW. Rate CB contains a customer charge and a declining-block  
8        energy charge. There is no demand charge or seasonally-differentiated energy charge.

9                The SH rate schedule is available to non-residential customers using electric space-  
10        heating equipment that exhibit a total electric load less than or equal to 40 kW. Like Rate  
11        CB, the SH rate schedule contains a customer charge and a declining-block energy charge.  
12        There is no demand charge or seasonally-differentiated energy charge.

13  
14        **Q. Does the Company propose to revise its SGS rate structure in this proceeding?**

15        A. No. As shown in Schedule BK-5, the Company is proposing to increase SGS customer  
16        charges by 5.3% and assign approximate increases of 3.3% and 5.4%, respectively, to Rate  
17        CB and Rate SH energy charges.

18  
19        **Q. Does CURB accept the Company's proposed SGS rate design in this proceeding?**

20        A. No. CURB opposes the Company's declining block SGS rate structure since it does not  
21        promote conservation.

22

1 **Q. Does CURB recommend eliminating all of Empire's declining block SGS energy**  
2 **charges in this proceeding?**

3 A. No. CURB recommends a continuation of the phase-out of the Company's declining-block  
4 energy charges that began in Docket 314. More specifically, CURB recommends that the  
5 Commission adopt an SGS rate design that eliminates 50% of the existing declining-block  
6 rate differentials for Rates CB and SH.

7  
8 **Q. Have you prepared an alternative SGS rate design and proof of revenue to illustrate**  
9 **CURB's rate design proposals in this proceeding?**

10 A. Yes, I have. Schedule BK-6 illustrates CURB's recommended SGS rate design at Ms.  
11 Crane's recommended revenue requirement level.

12  
13 **Q. How did you determine the SGS target revenue requirement decrease of**  
14 **approximately \$161,000 used in Schedule BK-6?**

15 A. For illustrative purposes only, I used the total SGS base revenue decrease of \$161,486  
16 shown in Table 1 above.

17  
18 **Q. Please explain how you developed CURB's illustrative SGS rates shown in column 4**  
19 **of Schedule BK-6.**

20 A. I used the following steps to illustrate CURB's recommended rate design:

- 21 1. Set the target decrease for each SGS subclass at 7.79%;  
22 2. Leave the existing SGS customer charge unchanged;  
23 3. Recover the balance of the CB target revenue requirement via energy charge  
24 adjustments that eliminate approximately 50% of the subclass's current declining  
25 block rate discount;

1           4. Recover the balance of the SH target revenue requirement via energy charge  
2           adjustments that eliminate approximately 50% of the subclass's current declining  
3           block rate discount.  
4

5   **Q. What percentage of the existing CB and SH declining block rate discounts does**  
6   **CURB's illustrative rate design actually eliminate?**

7   A. As shown in Schedule BK-6, the CB discount for usage in excess of 700 kWh per month is  
8   reduced from \$0.01021 per kWh at present rates to \$0.00510 under illustrative rates or by  
9   50.0%. Similarly, the SH discount for usage in excess of 1,000 kWh per month is reduced  
10   from \$0.00928 per kWh at present rates to \$0.00464 under illustrative rates or by 50.0%.

11  
12   **Q. Does CURB's illustrative SGS rate design shown in Schedule BK-6 implement a**  
13   **uniform decrease to the SGS subclasses, as intended?**

14   A. Yes. Schedule BK-7 shows that the CB and SH classes would receive uniform decreases of  
15   7.79%.

16  
17   **Q. How should the Commission implement its final SGS revenue adjustment in this**  
18   **proceeding?**

19   A. Once the KCC determines its final residential revenue adjustment (in place of CURB's  
20   illustrative SGS class decrease of 7.79%), CURB recommends that the Commission order  
21   Empire to implement an SGS rate design that eliminates 50% of the existing declining-  
22   block rate differentials for Rates CB and SH.

23  
24   **Q. Does this conclude your direct testimony?**

25   A. Yes.

**VERIFICATION**

STATE OF MISSOURI            )  
  ) ss:  
COUNTY OF ST. LOUIS        )

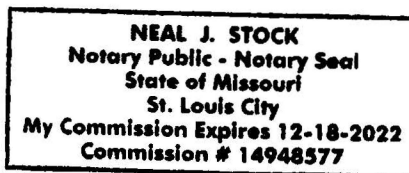
I, Brian Kalcic, of lawful age and being first duly sworn upon my oath, state that I am a consultant for the Citizens' Utility Ratepayer Board; that I have read and am familiar with the above and foregoing testimony and attest that the statements therein are true and correct to the best of my knowledge, information, and belief.

  
\_\_\_\_\_  
Brian Kalcic

SUBSCRIBED AND SWORN to before me this 3<sup>rd</sup> day of May, 2019.

  
\_\_\_\_\_  
Notary Public

My Commission expires: 12/18/2019





## **APPENDIX**

### **Qualifications of Brian Kalcic**

Mr. Kalcic graduated from Illinois Benedictine College with a Bachelor of Arts degree in Economics in December 1974. In May 1977 he received a Master of Arts degree in Economics from Washington University, St. Louis. In addition, he has completed all course requirements at Washington University for a Ph.D. in Economics.

From 1977 to 1982, Mr. Kalcic taught courses in economics at both Washington University and Webster University, including Microeconomic and Macroeconomic Theory, Labor Economics and Public Finance.

During 1980 and 1981, Mr. Kalcic was a consultant to the Equal Employment Opportunity Commission, St. Louis District Office. His responsibilities included data collection and organization, statistical analysis and trial testimony.

From 1982 to 1996, Mr. Kalcic was employed by the firm of Cook, Eisdorfer & Associates, Inc. During that time, he participated in the analysis of electric, gas and water utility rate case filings. His primary responsibilities included cost-of-service and economic analysis, model building, and statistical analysis.

In March 1996, Mr. Kalcic founded Excel Consulting, a consulting practice that offers business and regulatory analysis.

Mr. Kalcic has previously testified before the state regulatory commissions of Delaware, Indiana, Kansas, Kentucky, Maine, Massachusetts, Minnesota, Missouri, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas, and also before the Bonneville Power Administration.

**SCHEDULES BK-1 THROUGH BK-7**

**THE EMPIRE DISTRICT ELECTRIC COMPANY**  
Summary of Present and Proposed Residential Base Rates

<u>Line</u>	<u>Description</u>	Present Rates	Proposed Rates	Proposed Increase	
				Amount	Percent
		(1)	(2)	(3)	(4)
	<b>Customer Charge</b>				
1	RG	\$14.00	\$17.00	\$3.00	21.43%
2	RGW	\$14.00	\$17.00	\$3.00	21.43%
3	RH	\$14.00	\$17.00	\$3.00	21.43%
	<b>Energy Charge</b>				
	<u>RG</u>				
4	First 600 kWh	\$0.06858	\$0.07920	\$0.01062	15.49%
5	All add'l kWh	\$0.06112	\$0.07058	\$0.00946	15.48%
	<u>RGW</u>				
6	First 600 kWh	\$0.06309	\$0.07341	\$0.01032	16.36%
7	All add'l kWh	\$0.06112	\$0.07058	\$0.00946	15.48%
	<u>RH</u>				
8	All kWhs	\$0.05723	\$0.06626	\$0.00903	15.78%

**THE EMPIRE DISTRICT ELECTRIC COMPANY**  
Derivation of CURB's Residential Customer Cost Benchmark

Line	Description	Total Company (1)	Allocated			Total Residential (5)
			RG (2)	RGW (3)	RH (4)	
	<b>Gross Plant</b>					
1	Services	\$4,752,649	\$2,585,197	\$348,608	\$870,587	\$3,804,392
2	Meters	\$1,401,538	\$742,143	\$100,076	\$249,923	\$1,092,142
3	<b>Total Gross Plant</b>	<b>\$6,154,187</b>	<b>\$3,327,340</b>	<b>\$448,684</b>	<b>\$1,120,510</b>	<b>\$4,896,534</b>
	<b>Accum. Depreciation Reserve</b>					
4	Services	\$2,483,477	\$1,401,990	\$189,092	\$472,131	\$2,063,213
5	Meters	\$421,590	\$223,240	\$30,103	\$75,178	\$328,521
6	<b>Total Depr. Reserve</b>	<b>\$2,905,067</b>	<b>\$1,625,230</b>	<b>\$219,195</b>	<b>\$547,309</b>	<b>\$2,391,734</b>
7	<b>Total Applicable Rate Base</b>	<b>\$3,249,120</b>	<b>\$1,702,110</b>	<b>\$229,489</b>	<b>\$573,201</b>	<b>\$2,504,800</b>
	<b>Operation &amp; Maintenance Expenses</b>					
8	Oper Meter	\$172,991	\$91,602	\$12,352	\$30,848	\$134,802
9	Oper Services	\$14,270	\$8,067	\$1,088	\$2,717	\$11,872
10	Maintenance Meters	\$20,782	\$11,005	\$1,484	\$3,706	\$16,195
11	Customer Accounts (901-905)	\$540,019	\$304,811	\$44,145	\$115,047	\$464,003
12	Customer Service (907-910)	\$92,603	\$19,549	\$2,685	\$6,582	\$28,816
13	Sales Expense (912)	\$6,983	\$1,863	\$296	\$846	\$3,005
14	<b>Total Applicable O&amp;M Expenses</b>	<b>\$847,648</b>	<b>\$436,897</b>	<b>\$62,050</b>	<b>\$159,746</b>	<b>\$658,693</b>
	<b>Depreciation Expense</b>					
15	Services	\$155,538	\$87,929	\$11,857	\$29,611	\$129,397
16	Meters	\$33,216	\$17,589	\$2,372	\$5,923	\$25,884
17	<b>Total Applicable Depreciation Expense</b>	<b>\$188,754</b>	<b>\$105,518</b>	<b>\$14,229</b>	<b>\$35,534</b>	<b>\$155,281</b>
	<b>Rate Base Related Revenue Requirement</b>					
18	Interest	\$73,835	\$38,680	\$5,215	\$13,026	\$56,920
19	Equity Return	\$171,173	\$89,672	\$12,090	\$30,198	\$131,960
20	Income Tax	\$60,099	\$31,484	\$4,245	\$10,602	\$46,331
21	<b>Total Rate Base Related</b>	<b>\$305,107</b>	<b>\$159,836</b>	<b>\$21,550</b>	<b>\$53,826</b>	<b>\$235,212</b>
	<b>Summary</b>					
22	<b>Rate Base Related Revenue Req. (line 21)</b>	\$305,107				\$235,212
23	<b>Applicable O&amp;M Expenses (line 14)</b>	\$847,648				\$658,693
24	<b>Applicable Depreciation Expense (line 17)</b>	\$188,754				\$155,281
25	<b>Total Customer-Related Revenue Requirement</b>	<b>\$1,341,509</b>				<b>\$1,049,186</b>
26	<b>Number of Residential Bills</b>					98,070
27	<b>Monthly Customer Cost</b>					<b>\$10.70</b>

Source: Empire's COSS.

**THE EMPIRE DISTRICT ELECTRIC COMPANY**  
 CURB Illustrative Residential Rate Design and Proof of Revenue

Line	Description	Pro Forma	Present	Present	Illustrative	Illustrative	Percentage
		Billing Determinants	Rates	Revenue	Rates	Revenue	Change in Revenues
		(1)	(2)	(3) = (1)*(2)	(4)	(5) = (1)*(4)	(6) = (5)/(3)
<b>Customer Charge</b>							
1	RG	66,530	\$14.00	\$931,420	\$14.00	\$931,420	0.00%
2	RGW	9,139	\$14.00	\$127,946	\$14.00	\$127,946	0.00%
3	RH	<u>22,401</u>	\$14.00	<u>\$313,614</u>	\$14.00	<u>\$313,614</u>	0.00%
4	Subtotal	98,070		\$1,372,980		\$1,372,980	0.00%
<b>Energy Charge</b>							
<i>RG</i>							
5	First 600 kWh	30,026,795	\$0.06858	\$2,059,238	\$0.06502	\$1,952,342	-5.19%
6	All add'l kWh	<u>32,335,503</u>	\$0.06112	<u>\$1,976,346</u>	\$0.06123	<u>\$1,979,903</u>	0.18%
7	Subtotal	62,362,298		\$4,035,584		\$3,932,245	-2.56%
<i>RGW</i>							
8	First 600 kWh	4,569,222	\$0.06309	\$288,272	\$0.05933	\$271,092	-5.96%
9	All add'l kWh	<u>6,166,706</u>	\$0.06112	<u>\$376,909</u>	\$0.06123	<u>\$377,587</u>	0.18%
10	Subtotal	10,735,928		\$665,181		\$648,679	-2.48%
<i>RH</i>							
11	All kWhs	<u>34,436,656</u>	\$0.05723	<u>\$1,970,810</u>	\$0.05585	<u>\$1,923,287</u>	-2.41%
12	Subtotal	34,436,656		\$1,970,810		\$1,923,287	-2.41%
13	Total Residential	107,534,882		\$8,044,555		\$7,877,191	-2.08%

Source: CURB-DR-100

Target \$7,877,022  
 Rounding \$169

**EMPIRE DISTRICT ELECTRIC COMPANY**  
Summary of CURB Illustrative Residential Base Revenue Adjustments

<u>Line</u>	<u>Description</u>	Present Revenue (1)	Illustrative Revenue (2)	Illustrative Increase	
				Amount (3)	Percent (4)
<b>Residential Service</b>					
1	General Service - RG	\$4,967,004	\$4,863,665	(103,339)	-2.08%
2	Water Heating - RGW	\$793,127	\$776,625	(16,502)	-2.08%
3	Total Electric - RH	<u>\$2,284,424</u>	<u>\$2,236,901</u>	<u>(47,523)</u>	-2.08%
4	Total Residential	\$8,044,555	\$7,877,191	(167,364)	-2.08%

Source: Sch. BK-3

**EMPIRE DISTRICT ELECTRIC COMPANY**  
Summary of Present and Proposed Small General Service Base Rates

<u>Line</u>	<u>Description</u>	Present Rates	Proposed Rates	Proposed Increase	
				Amount	Percent
		(1)	(2)	(3)	(4)
	<b>Customer Charge</b>				
1	Commercial Service - CB	\$19.00	\$20.00	\$1.00	5.26%
2	Small Heating Service - SH	\$19.00	\$20.00	\$1.00	5.26%
	<b>Energy Charge</b>				
	<i>CB</i>				
3	First 700 kWh	\$0.09284	\$0.09589	\$0.00305	3.29%
4	All add'l kWh	\$0.08263	\$0.08534	\$0.00271	3.28%
	<i>SH</i>				
5	First 1000 kWh	\$0.07891	\$0.08320	\$0.00429	5.44%
6	All add'l kWh	\$0.06963	\$0.07341	\$0.00378	5.43%

**EMPIRE DISTRICT ELECTRIC COMPANY**

Schedule BK-6

CURB Illustrative SGS Rate Design and Proof of Revenue

Line	Description	Pro Forma	Present	Present	Illustrative	Illustrative	Percentage
		Billing Determinants	Rates	Revenue	Rates	Revenue	Change in Revenues
		(1)	(2)	(3) = (1)*(2)	(4)	(5) = (1)*(4)	(6) = (5)/(3)
<b>Customer Charge</b>							
1	Commercial Service - CB	14,215	\$19.00	\$270,085	\$19.00	\$270,085	0.00%
2	Small Heating Service - SH	<u>1,317</u>	\$19.00	<u>\$25,023</u>	\$19.00	<u>\$25,023</u>	0.00%
3	Subtotal	15,532		\$295,108		\$295,108	0.00%
<b>Energy Charge</b>							
4	<i>CB</i>						
5	First 700 kWh	5,230,724	\$0.09284	\$485,620	\$0.08138	\$425,676	-12.34%
6	All add'l kWh	<u>13,200,007</u>	\$0.08263	<u>\$1,090,717</u>	\$0.07628	<u>\$1,006,897</u>	-7.68%
7	Subtotal	18,430,731		\$1,576,337		\$1,432,573	-9.12%
	<i>SH</i>						
8	First 1000 kWh	896,011	\$0.07891	\$70,704	\$0.06941	\$62,192	-12.04%
9	All add'l kWh	<u>1,883,388</u>	\$0.06963	<u>\$131,140</u>	\$0.06477	<u>\$121,987</u>	-6.98%
10	Subtotal	2,779,399		\$201,844		\$184,179	-8.75%
11	Total SGS	21,210,130		\$2,073,289		\$1,911,860	-7.79%

Source: CURB-DR-100

Target  
Rounding      \$1,911,803  
                         \$57



**EMPIRE DISTRICT ELECTRIC COMPANY**  
Summary of CURB Illustrative SGS Base Revenue Adjustments

<u>Line</u>	<u>Description</u>	Present Revenue (1)	Illustrative Revenue (2)	Illustrative Increase	
				Amount (3)	Percent (4)
<b>Small General Service</b>					
1	Commercial Service - CB	\$1,846,422	\$1,702,658	(143,764)	-7.79%
2	Small Heating Service - SH	<u>\$226,867</u>	<u>\$209,202</u>	<u>(17,665)</u>	-7.79%
3	Total SGS - Secondary	\$2,073,289	\$1,911,860	(161,429)	-7.79%

Source: Sch. BK-6

**CERTIFICATE OF SERVICE**

19-EPDE-223-RTS

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing document was served by electronic service on this 13<sup>th</sup> day of May, 2019, to the following:

JAMES G. FLAHERTY, ATTORNEY  
ANDERSON & BYRD, L.L.P.  
216 S HICKORY  
PO BOX 17  
OTTAWA, KS 66067  
[jflaherty@andersonbyrd.com](mailto:jflaherty@andersonbyrd.com)

JILL SCHWARTZ, SR. MGR, RATES &  
REGULATORY AFFAIRS  
EMPIRE DISTRICT ELECTRIC COMPANY  
602 S JOPLIN AVE  
JOPLIN, MO 64801  
[Jill.Schwartz@libertyutilities.com](mailto:Jill.Schwartz@libertyutilities.com)

COLE BAILEY, LITIGATION COUNSEL  
KANSAS CORPORATION COMMISSION  
1500 SW ARROWHEAD RD  
TOPEKA, KS 66604  
[c.bailey@kcc.ks.gov](mailto:c.bailey@kcc.ks.gov)

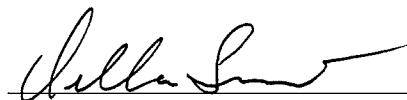
BRIAN G. FEDOTIN, DEPUTY GENERAL  
COUNSEL  
KANSAS CORPORATION COMMISSION  
1500 SW ARROWHEAD RD  
TOPEKA, KS 66604  
[b.fedotin@kcc.ks.gov](mailto:b.fedotin@kcc.ks.gov)

ROBERT VINCENT, LITIGATION COUNSEL  
KANSAS CORPORATION COMMISSION  
1500 SW ARROWHEAD RD  
TOPEKA, KS 66604  
[r.vincent@kcc.ks.gov](mailto:r.vincent@kcc.ks.gov)

SARAH B. KNOWLTON, GENERAL  
COUNSEL  
LIBERTY UTILITIES CORP  
116 North Main Street  
Concord, NH 03301  
[sarah.knowlton@libertyutilities.com](mailto:sarah.knowlton@libertyutilities.com)

JANET BUCHANAN, DIRECTOR-  
REGULATORY AFFAIRS  
KANSAS GAS SERVICE, A DIVISION OF  
ONE GAS, INC.  
7421 W 129TH ST  
OVERLAND PARK, KS 66213-2713  
[janet.buchanan@onegas.com](mailto:janet.buchanan@onegas.com)

JUDY JENKINS HITCHY, MANAGING  
ATTORNEY  
KANSAS GAS SERVICE, A DIVISION OF  
ONE GAS, INC.  
7421 W 129TH ST  
OVERLAND PARK, KS 66213-2713  
[judy.jenkins@onegas.com](mailto:judy.jenkins@onegas.com)



Della Smith  
Senior Administrative Specialist