

Exhibit No.:
Issue: Class Cost of Service Study, Revenue Allocation, Rate Design
Witness: Kavita Maini
Type of Exhibit: Surrebuttal Testimony
Sponsoring Parties: MECCG
Case No.: ER-2019-0374
Date Testimony Prepared: March 27, 2020

**BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI**

**In the Matter of The Empire District
Electric Company of Joplin, Missouri for
Authority to File Tariffs Increasing Rates
for Electric Service Provided to
Customers in the Missouri Service Area of
the Company**) **File No. ER-2019-0374**
) **Tariff No. YE-2020-0029**
)
)
)

Surrebuttal Testimony and Schedules of

Kavita Maini

On behalf of

MIDWEST ENERGY CONSUMERS GROUP

March 27, 2020



Protecting Your Bottom Line

KM ENERGY CONSULTING, LLC

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of The Empire District Electric)
Company for Authority to File Tariffs Increasing)
Rates for Electric Service Provided to Customers) Case No. ER-2019-0374
in the Company's Missouri Service Area)

STATE OF WISCONSIN)
) SS
COUNTY OF WAUKESHA)

AFFIDAVIT OF KAVITA MAINI

Kavita Maini, being first duly sworn, on her oath states:

1. My name is Kavita Maini. I am a consultant with KM Energy Consulting, LLC. having its principal place of business at 961 North Lost Woods Road, Oconomowoc, WI 53066. I have been retained by the Midwest Energy Consumers' Group ("MECG") in this proceeding on its behalf.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony and schedules which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2019-0374
3. Under penalty of perjury, I declare that the foregoing is true and correct to the best of my knowledge and belief.

Kavita Maini

**BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI**

**In the Matter of The Empire District
Electric Company of Joplin, Missouri
for Authority to File Tariffs Increasing
Rates for Electric Service Provided to
Customers in the Missouri Service
Area of the Company**

File No. ER-2019-0374
Tariff No. YE-2020-0029

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**BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI**

In the Matter of The Empire District)
Electric Company of Joplin, Missouri for)
Authority to File Tariffs Increasing Rates) **File No. ER-2019-0374**
for Electric Service Provided to) **Tariff No. YE-2015-0074**
Customers in the Missouri Service Area of)
the Company)
)

Surrebuttal Testimony of Kavita Maini

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND OCCUPATION.**

3 A. My name is Kavita Maini. I am the principal and sole owner of KM Energy
4 Consulting, LLC.

5

6 **Q. PLEASE STATE YOUR BUSINESS ADDRESS.**

7 A. My office is located at 961 North Lost Woods Road, Oconomowoc, WI 53066.

8

9 **Q. ARE YOU THE SAME KAVITA MAINI WHO HAS PREVIOUSLY FILED**
10 **DIRECT AND REBUTTAL TESTIMONY IN THIS CASE?**

11

12 A. Yes, I filed direct and rebuttal testimony on behalf of the Midwest Energy Consumers
13 Group (“MECG”). My direct testimony provided recommendations regarding Empire
14 District Electric Company, A Liberty Utilities Company’s (“Liberty-Empire” or
15 “Company”) class cost of service study (“COSS”), revenue allocation to classes and
16 rate design for the Large Power and Schedule SC-P rate schedules. My rebuttal
17 testimony addressed issues related to Staff’s and the Company’s COSS

1 methodologies, provided COSS results using Staff's revenue requirements and
2 addressed Staff's rate design recommendations applicable to the LP and SC-P classes.

3
4 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

5 A. The purpose of my surrebuttal testimony is to respond to Staff's rebuttal regarding the
6 recommendations I made in my direct testimony related to COSS, revenue allocation
7 to classes and rate design applicable to the LP and SC-P rate classes. I also respond to
8 the Company's revised treatment of interruptible load in its COSS as well as rate
9 design applicable to the LP and SC-P classes as contained in Mr. Lyons' rebuttal
10 testimony. The fact that I do not address any particular issue should not be interpreted
11 as my implicit approval of any position taken by the Company or Staff on that issue.

12 In addition, Mr. Steve Chriss is filing surrebuttal testimony in response to Staff's
13 rebuttal testimony. In his testimony, Mr. Chriss provides real world support for the
14 conclusions contained in the EEI Typical Bills and Average Rates Report showing that
15 Empire's industrial rates are significantly above the national average industrial rate.

16
17 **II. SUMMARY**

18
19
20 **Q. PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY AND**
21 **RECOMMENDATIONS.**

22
23 A. The following is a summary of my surrebuttal testimony and recommendations:
24
25

26 **Section III: COSS**

27
28 **A. SC-P Class Corrections**
29

- 1 • The Company has appropriately firmed up revenue for the interruptible load and properly
2 allocated interruptible credit related costs to firm load only. The corrected COSS results
3 show that this class is over earning much more significantly as compared to the
4 Company's initial COSS results.
5
- 6 • Staff's revised COSS, corrected for the SC-P class load profile also shows a significantly
7 high rate of return for that class as compared to the results in Staff's direct testimony.
8 Staff's COSS results show that this class is over contributing by 16.63% and 12.67% at
9 current rates and current rates reduced by tax credits respectively compared to Staff's
10 1.01% and -2.35% in direct testimony with the incorrect load profile.
11

12 **B. Staff's Allocation of General Plant and Administrative and General Expenses** 13 **(A&G)** 14

- 15 • Regarding Staff's use of the energy allocator for categories such as General Plant and
16 A&G expenses, the Company reinforced my concern that energy usage does not drive
17 these costs and that Staff's COSS unnecessarily over-allocated a number of expenses to
18 the LP and SC-P class and correspondingly, under-allocated such expenses to the
19 residential class.
20
21

22 **Section IV: Revenue Allocation** 23

- 24 • Staff revised its revenue allocation in the second step to include reductions for the SC-P
25 class by lowering the reduction to the LP class. If the Commission approves Staff's
26 revenue requirement reduction, then I recommend that a revised reallocation in the second
27 step of approximately 24.5% to CB/SH, 24.5% to LP, 49% to GP/TEB and 2% to the SC-
28 P class respectively.
29
- 30 • I continue to recommend that the revenue allocation approach should either rely on Staff's
31 COSS, as adjusted consistent with my rebuttal testimony, or my A&E 6NCP approach. I
32 also continue to recommend greater movement towards cost. If there is a large overall
33 rate decrease as recommended by Staff, more aggressive steps should be taken to align
34 rates with costs. If the decrease is smaller, then the Commission should consider, in an
35 effort to bring classes closer to cost of service, not maintaining other class' portion of the
36 tax rider credits.
37
38

39 **Section V: Rate Design** 40

41 **A. Demand Billing Determinants for the LP Class**

- 42 • Regarding Staff's concern of using non-coincident peak demand determinant to recover
43 generation capacity related costs in LP rates, this component can be refined. In Docket
44 No. ER-2014-0351, I had recommended that the billing demand should be time
45 differentiated as is typical in other jurisdictions. This recommendation did not get

1 implemented due to administrative complexity and the issue of potential switching
2 between GP and LP rates. While this issue has not been sufficiently addressed in this case
3 and issues such as rate impacts have not been studied, MECG is open to working
4 collaboratively with the Company and Staff going forward to study cost-based rate design
5 alternatives applicable to the LP class.
6

- 7 • It should be noted, however, while the billing determinant for demand for the LP class can
8 be refined, a demand billing determinant based on non-coincident peak is more
9 appropriate for recovering fixed costs than recovering fixed costs through the energy
10 charge component as is largely done in the current LP rate design.
11

12 **B. Bill Impacts**

- 13
14 • Staff's mathematical analysis to show that low load factor customers within the LP class
15 have experienced higher rate increases compared to the mid and high load factor
16 customers ignores the fact that the evidence has suggested over the years that high load
17 factor customers have been paying a disproportionate share of costs and therefore,
18 corrections have been necessary. Subsidization, either between classes or within the class
19 is neither fair nor reasonable. And, accurate pricing signals are important to guide
20 consumer behavior. The rate design changes that have been occurring over the past
21 several rate cases have been done on a gradual basis to bring the recovery of costs more in
22 line with costs to serve. The Commission should not be swayed by an argument that,
23 because these efforts have been taken in a gradual fashion, they are no longer appropriate.
24

25 **C. LP Rate Design**

26 Regarding Staff's concern that MECG's rate design recommendation based on Staff revenues
27 will result in the tail block charges being higher in three non-summer months:
28

- 29 • The LP rate is not a real time pricing rate, where the marginal price thresholds including
30 market transaction costs must be met every hour, day or month of the year.
31
- 32 • The energy charges should be based on energy costs from the COSS.
33
- 34 • Further, reliance on market price thresholds will also have another unintended
35 consequence of instability in the rates because market prices change frequently and may
36 not reflect a similar pattern going forward.
37
- 38 • In addition, for arguments sake, if this market price threshold is to be considered for some
39 general guidance, the average nighttime summer and non-summer market prices are lower
40 than Staff's calculation of the MECG tail block rates.
41
- 42 • The Company supports my recommendations to apply any approved increase for the LP
43 class to the billing demand and facility charges and apply any approved decreases to the
44 energy charges.

1 **III. COSS**

2
3 **A. SC-P Class Corrections**

4
5
6 **Q. WHAT SPECIFIC ISSUES ARE YOU ADDRESSING WITH RESPECT TO**
7 **THE SC-P CLASS IN STAFF’S AND COMPANY’S COSS?**

8
9 A. I am responding to Staff’s and the Company’s response regarding firming up of this
10 class’ revenues. I also address Staff’s corrections to the SC-P class’ hourly load
11 profile in calculating the demand allocator to allocate fixed production related costs to
12 classes.

13
14 ***1. Firming Up Revenue***

15
16 **Q. STAFF INDICATES THAT FIRMING UP REVENUES FOR**
17 **INTERRUPTIBLE CUSTOMERS IS DEPENDENT ON WHETHER THE**
18 **INTERRUPTIBLE CUSTOMER IS ACTUALLY INTERRUPTED. DO YOU**
19 **AGREE?**
20

21 A. No. interruptible credits are given to customers for being available for interruptions
22 and the numbers of potential hours of interruption are specified in the tariff.
23 Consequently, the number of actual interruptions has no relevance in firming up the
24 revenues. Despite this difference of opinion, Staff indicates that it used firming up
25 revenues for the SC-P class. Therefore, this issue has largely become simply an
26 academic argument.

27
28
29 **Q. DID THE COMPANY IMPLEMENT YOUR RECOMMENDATIONS FOR**
30 **FIRMING UP THE SC-P REVENUES FOR INTERRUPTIBLE LOAD?**

31
32 A. Yes, Mr. Lyons supported my recommendations to firm up the SC-P revenues and
33 allocated the interruptible credit related costs to firm load. I appreciate the

1 constructive steps the Company is taking in properly assigning these costs and
2 recalculating the rate of return associated with SC-P class.

3
4 **Q. HOW WAS THE SC-P CLASS' RATE OF RETURN IMPACTED IN THE**
5 **COMPANY'S REVISED COSS?**

6
7 A. As noted by Mr. Lyons on page 34 of his rebuttal testimony, the rate of return for the
8 SC-P class increased from 9.63% to 12.78% as a result of firming-up revenues. In
9 other words, the corrected COSS results show that SC-P class is over earning
10 significantly more than the Company's results indicated in direct testimony.

11
12 **2. Staff's Corrections to SC-P Class Hourly Profile**

13
14 **Q. DID STAFF REPLACE THE IMPUTED SC-P PROFILE USED IN ITS COSS**
15 **IN DIRECT TESTIMONY, TO A CORRECTED HOURLY PROFILE?**

16
17 A. Yes. I flagged this issue in my rebuttal testimony (page 12) indicating the Staff's
18 imputed load profile was not representative. In its rebuttal testimony, Staff revised its
19 COSS and used this class' actual hourly profile to calculate the demand allocator used
20 to allocate fixed production plant related costs. I appreciate Staff's corrections in this
21 regard. The revised results of Staff's COSS are shown in Table 1 and indicate that the
22 rates of return for the SC-P class are in the double digits after Staff used the correct
23 load profile for this class.¹ Specifically, in Staff's revised study, this class is over
24 contributing by 16.63% and 12.67% at current rates and current rates reduced by tax
25 credits respectively compared to Staff's 1.01% and -2.35% in Staff's direct testimony
26 with the incorrect profile. Table 1 also shows Staff's revised results are more

¹ Note that Staff did not use the revised energy allocator after adjusting for the SC-P class profile. The results using the revised energy allocator show higher rates of return for the SC-P class and higher contributions at current rates than depicted in Table 1.

1 consistent with my results in rebuttal testimony and provided here for ease of
2 reference.

3
4 **Table 1: Staff's COSS Comparison for SC-P Class**

	Staff Direct	Staff Rebuttal - Corrected	MECG Rebuttal
	SC-P	SC-P	SC-P
Rate of return provided by tariffed rates	7.48%	12.71%	14.22%
Rate of return provided with tariffed rates reduced by tax credit	6.30%	11.38%	12.82%
% (Under) Over contribution at current tariffed rates	-1.01%	16.63%	20.87%
% (Under) Over contribution at current rates reduced by tax credit	2.35%	12.67%	16.09%

5
6
7
8
9 **B. Staff's Allocation of General Plant and A&G Expenses**

10
11 **Q. WHAT WAS YOUR RESPONSE TO STAFF'S ALLOCATION OF GENERAL
12 PLANT AND A&G EXPENSES IN YOUR REBUTTAL TESTIMONY?**

13
14 A. I indicated that Staff used the energy allocator to allocate many items including
15 general plant and administrative and general (A&G) expenses on the basis of the
16 energy allocator. I expressed concern with regards to categorizing these items as
17 miscellaneous and unassignable and allocating them on the basis of the energy
18 allocator.

19
20 **Q. DID THE COMPANY CITE SIMILAR CONCERNS?**

21 A. Yes. Mr. Lyons indicates on page 29 of his rebuttal testimony that customer energy
22 usage does not drive the costs of General Plant and A&G expenses. Further, he shows
23 a comparison of the Company's composite allocators (developed consistent with cost

1 causation and guidance from the NARUC manual) with Staff's energy allocator. He
2 indicates the following on pages 30-31 of his rebuttal testimony:

3 ..Figure [8] shows that Staff's approach results in a higher allocation of
4 general plant costs to Schedules GP/TEB, LP, and SC-P, and a lower
5 allocation of general plant costs to the remaining schedules. For example,
6 the Figure shows that Staff's method allocates 39.6 percent, of general
7 plant costs to Schedule RG while the Company's method allocates 70.6
8 percent of general plant costs to Schedule RG.

9
10 .. Figure [9] shows that Staff's method allocates more A&G expenses to
11 Schedules GP/TEB, LP, and SC-P, and less A&G expenses to the
12 remaining schedules. For example, the Figure shows that Staff's method
13 allocates 39.9 percent of A&G expenses to Schedule RG while the
14 Company's method allocates 68.8 percent of A&G expenses to Schedule
15 RG.

16
17 Thus, the Company's findings reinforce my concerns regarding Staff's unwarranted
18 reliance on the energy allocator and confirm that Staff's COSS unnecessarily over
19 allocated a number of expenses to the LP and SC-P class and correspondingly, under
20 allocated such expenses to the residential class.

21 22 **IV.REVENUE ALLOCATION**

23
24 **Q. DID STAFF SUBMIT A REVISED REVENUE ALLOCATION IN ITS**
25 **REBUTTAL TESTIMONY?**

26
27 A. Yes. While Staff's overall revenue allocation two-step approach remains the same,
28 Staff recommended revised revenue allocation in the second step. In the second step,
29 Staff recommends that the \$18.6 million reduction over that already reflected in tax
30 credits should be reassigned as follows: 25% to CB/SH, 23% to LP, 50% to GP/TEB
31 and 2% to the SC-P class. In its direct testimony, Staff had recommended 25% to
32 CB/SH, 25% to LP and 50% to GP/TEB respectively.

1 **Q. PLEASE COMMENT ON STAFF'S REVISED REVENUE ALLOCATION**
2 **APPROACH.**

3
4 A. I appreciate that Staff recognizes that the SC-P class revenue responsibility also needs
5 to be adjusted downwards. That said, however, if the final revenue requirement is
6 \$36.4 million as recommended by Staff, and Staff's revenue allocation approach is
7 authorized, I do not agree that the reallocation of the reduction should come entirely
8 from the LP class. Rather, the reallocation should be proportional to class revenues
9 associated with the CB/SH, LP and GB/TEB classes. Such an approach would result
10 in revised allocation percentages of approximately 24.5% to CB/SH, 24.5% to LP,
11 49% to GP/TEB and 2% to the SC-P class respectively.

12 I continue to recommend that the revenue allocation approach should either
13 rely on Staff's COSS, as adjusted consistent with my rebuttal testimony, or my A&E
14 6NCP approach. I also continue to recommend greater movement towards cost. If
15 there is a large overall rate decrease as recommended by Staff, more aggressive steps
16 should be taken to align rates with costs. If the decrease is smaller, then the
17 Commission should consider, in an effort to bring classes closer to cost of service, not
18 maintaining other class' portion of the tax rider credits.

19
20
21 **C. RATE DESIGN**

22
23 **Q. What issues do you address in this Section of your testimony?**

24 A. I respond to Staff regarding the following:

- 25 • Applicable billing determinants for demand in the LP rate class;
26 • Bill impacts within the LP class; and
27 • Relationship of LP tail block charge and market energy costs.

1 I also respond to the Company's response regarding my recommendations on rate
2 design for the LP class.

3
4 **A. Applicable Demand Billing Determinants for the LP Class**

5 **Q. WHAT EXCERPT DID STAFF REFERENCE IN ITS REBUTTAL**
6 **TESTIMONY REGARDING YOUR OBSERVATIONS ON INEFFICIENT**
7 **PRICING SIGNALS IN RATE DESIGN?**

8
9 A. Staff referenced the following excerpt from my direct testimony. :

10
11 ...if fixed generation costs are recovered through variable charges, it
12 distorts the pricing signal to the customers. Specifically, by including
13 such costs in the energy charge, the demand charge is kept artificially low,
14 thus implying that generation capacity is cheaper than is actually the case.
15 Similarly, the energy charge is now artificially high, thus implying that
16 energy costs are more expensive than is actually the case. Such a signal
17 could then result in customers choosing to use less energy but contributing
18 more to peak conditions. This has the effect of increasing the need for
19 capacity thereby increasing system costs, which once again, must be
20 recovered from customers through higher rates.

21
22
23 **Q. WHAT WAS STAFF'S CONCERN?**

24
25 A. Staff appears to take issue with the applicable billing determinant used for demand in
26 recovering generation capacity costs from a class. I understand Staff's rebuttal
27 testimony to emphasize that the billing determinant used to calculate demand related
28 charges should not be non-coincident peak demand. At the same time, however,
29 Staff's numerical examples shown on pages 11 and 12 of its rebuttal testimony appear
30 to confuse between inter-class and intra-class allocation.

31
32 **Q. HOW DO YOU RESPOND?**

33
34 A. I have the following observations, each of which I describe in more detail below:

1 First, the important takeaway from the excerpt of my direct testimony
2 referenced by Staff is that pricing signals are economically inefficient if fixed costs are
3 recovered through energy charges;

4 Second, I address the issue regarding the applicable billing determinant for
5 demand charges for the LP class; and

6 Third, Staff's analysis confuses interclass allocation (allocation of generation
7 capacity related costs between customer classes) and intraclass allocation (recovery or
8 allocation of generation capacity related costs within the class);

9
10 **Q. PLEASE EXPLAIN THE IMPORTANCE OF ECONOMICALLY EFFICIENT**
11 **PRICING SIGNALS IN RATE DESIGN.**

12
13 **A.** First, it is important to note that my specific issue regarding economic efficiency
14 referenced by Staff refers to rate design applicable within a class (i.e., intra-class). In
15 order words, the rate design applicable to a customer class, after the generation
16 capacity costs (fixed in nature) and fuel (and other relevant variable) costs have been
17 assigned to that class. To provide context to the discussion, I assumed here the class
18 revenue responsibility is at cost to serve but the rate design results in erroneous pricing
19 signals.

20 Second, Staff appears to have ignored the important takeaway that within a
21 customer class, fixed generation capacity costs should be recovered from demand
22 charges and not energy charges. I will demonstrate through an example by focusing
23 on the two predominant rate components – demand component and energy
24 component. Assume that a given dollar amount of revenues is to be collected from
25 these components within a rate class. While a wide range of possibilities exist with

1 respect to designing the rate to recover revenues, it is most reasonable to base demand
2 charges on the fixed (demand) costs and energy charges on the variable (energy) costs
3 resulting from the cost of service. Assume that a cost based rate design consists of a
4 demand charge of \$15 / KW-month and an energy charge of \$0.025 per kWh and that
5 applying these rates to the applicable billing determinants would result in recovery of
6 the required revenue. Suppose however, that the rates were instead inappropriately
7 designed with a \$3/KW-month demand charge and \$.06/kWh energy charge to recover
8 the same amount of revenue. Such a rate design would result in customers believing
9 that capacity is relatively inexpensive. Thus, the customer would assume that
10 imposing high demands on the system is not costly. Further, particularly for high load
11 factor customers that use a large amount of energy in relation to their demand, the
12 effect of an above cost energy rate sends a signal to increase preferences for
13 alternatives such as self-generation or production at alternative locations. Therefore,
14 conducting operations with erroneous pricing signals leads to misdirected behavior
15 that ultimately has the potential to raise rates for all customers.

16
17 **Q. DO YOU AGREE THAT A MORE REFINED BILLING DETERMINANT**
18 **OTHER THAN INDIVIDUAL CUSTOMERS' MONTHLY NON**
19 **COINCIDENT PEAKS MAY BE APPROPRIATE FOR RECOVERING FIXED**
20 **PRODUCTION COSTS FOR THE LP CLASS?**

21
22 A. Yes. In fact, in Docket No. ER-2014-0351, I had recommended that the billing
23 demand charge should be time differentiated. Typically, in other jurisdictions, the
24 billing demand is based on peak demand during a specified time period on weekdays
25 (that are not holidays). It is my understanding that this recommendation did not get
26 implemented because at that time, there were concerns regarding administrative

1 complexities and the potential for customer switching between the GP and LP class.
2 While this issue has not been sufficiently addressed in this case and issues such as rate
3 impacts have not been studied, MECG is open to working collaboratively with the
4 Company and Staff going forward to study cost based rate design alternatives
5 applicable to the LP class.

6 It should be noted, however, while the billing determinant for demand for the
7 LP class can be refined, a demand billing determinant based on non-coincident peak is
8 more appropriate for recovering fixed costs compared to recovering fixed costs
9 through the energy charge component. In rebuttal testimony, the Company's witness
10 Mr. Lyons indicates that while 53.0 percent of Schedule LP's cost of service is related
11 to demand-related costs, only 32.0 percent of revenues are recovered through demand-
12 related charges. Similarly, 45 percent of Schedule LP's cost of service is related to
13 energy-related costs while 68 percent of revenues are recovered through energy-
14 related charges. Such misalignment in costs and rates is counterproductive and if left
15 uncorrected, will continue to result in flawed pricing signals. .

16
17 **Q. WHY DO YOU BELIEVE THAT STAFF IS CONFUSING INTER-CLASS**
18 **COST ALLOCATION WITH INTRA-CLASS COST ALLOCATION?**
19

20 A. On pages 11 and 12 of her rebuttal testimony, Ms. Lange provides theoretical
21 examples that show the impact of changing the billing determinant for calculating cost
22 recovery of fixed generation capacity costs for the General Service Class. She shows
23 the impacts by using the non-coincident demand vs. the summer peak demand for the
24 three hypothetical customers within the General Service class. However, she
25 concludes in part that changing the billing determinants for calculating demand

1 charges within the General Service class does not alter the impact on the residential
2 class. This result is not surprising because Staff did not change the allocation factors
3 at the inter-class level. Using her example, she is allocating 17% of the generation
4 capacity costs to the General Service Class and 83% to the residential class (inter class
5 allocation). After allocating this amount, conducting an analysis regarding which
6 billing determinant to use for allocating 17% of the generation capacity costs within
7 the General Service Class (intra class), will necessarily not have any impact to the
8 amount to be recovered from the residential class.

9
10 **B. Bill Impacts**

11
12 **Q. STAFF APPEARS TO IMPLY THAT THE AVERAGE INDUSTRIAL RATE**
13 **COMPARISON USING EDISON ELECTRIC INSTITUTE (EEI) DATA MAY**
14 **NOT BE USEFUL.² DO YOU AGREE?**

15
16 **A.** No. As noted by MECG witness, Mr. Stephen Chriss, “these rates are used by
17 customers to benchmark their energy costs against other utilities and regions or, if a
18 customer is seeking to locate a new facility, assess the relative competitiveness of
19 utilities across a region or the country.” This data is useful in making comparisons on
20 a relative basis. Further, utilities also use this data to gauge the competitiveness of
21 their industrial rates against other utilities. For instance, as shown in Schedule 1
22 attached to this testimony, both Xcel Energy and Evergy utilize the same EEI report
23 source that I utilized in my direct testimony. In addition, the Commission found this
24 information insightful in its decision in the 2014 rate case.

25
26 **Q. WHAT DOES STAFF INDICATE REGARDING HISTORICAL RATE**
27 **IMPACTS TO CUSTOMERS WITHIN THE LP CLASS?**

² See Ms. Sarah Lange’s testimony on page 13.

1
2 A. Staff attempts to show that the impact to customers since the 2015 rate case is that the
3 lower load factor customers have experienced a higher increase compared to mid or
4 high load factor customers within the class. Staff further states that if my
5 recommendations on the rate design are implemented, it would have a further higher
6 impact on the low load factor customers.

7
8 **Q. PLEASE COMMENT ON STAFF'S ANALYSIS.**

9
10 A. I have the following observations regarding Staff's analysis:

11 First, it is important to note the objective of my recommendations, as well as
12 those of the Company, is to modify the rate design in order to have more efficient
13 pricing signals and limit subsidization. To be clear, these recommendations are by no
14 means unjustified or a discount for high load factor customers. Rather, the evidence
15 has suggested over the years that high load factor customers have been paying a
16 disproportionate share of costs and therefore, corrections have been necessary. For
17 example, in this case, the Company's analysis shows that 45 percent of Schedule LP's
18 cost of service is related to energy related costs while 68 percent of revenues are
19 recovered through energy-related charges (see Figure 13 of Mr. Lyons Rebuttal
20 testimony). Such over recovery of energy charges results in a disproportionate burden
21 on the high load factor customers. If Staff's recommendations to reduce the demand
22 charges were implemented, it would further widen the disparity with costs to serve
23 within the LP class. Subsidization, either between classes or within the class is neither
24 fair nor reasonable. And, accurate pricing signals are important to guide consumer
25 behavior. It is important to not lose sight of the fact that if certain customers within

1 the rate class do not pay their fair share, other customers are paying unfairly paying a
2 disproportionately higher share of the costs. Bottom line, the rate design changes that
3 have been occurring over the past several rate cases have been done on a gradual basis
4 to bring the recovery of costs more in line with costs to serve. The Commission
5 should not be swayed by an argument that, because these efforts have been taken in a
6 gradual fashion, that they are no longer appropriate.

7 Second, one of the reasons that all cost of service studies likely show that the
8 LP class revenues are significantly above cost is because the current rate design
9 continues to over-recover revenues due to overstated unitized energy charges and
10 understated unitized demand charges.

11 Third, as is true for any class with diverse load profiles, with an average rate
12 change, some customers in the class will experience an above average change while
13 others will experience a below average change. Such an outcome is neither surprising
14 nor unexpected.

15 For all of these reasons, I do not find Staff's arguments persuasive to alter my
16 recommendations, or the Commission's continuing effort, to address the
17 appropriateness of the LP rate design.

18
19 **C. Rate Design for the LP Class**

20 **Q. HOW DID STAFF RESPOND TO YOUR RECOMMENDATION TO**
21 **ALLOCATE ANY RATE DECREASES EQUALLY BETWEEN BOTH**
22 **BLOCKS OF THE ENERGY CHARGES IN THE LP RATE?**
23

24 **A.** Staff provided monthly nighttime (between 8 PM to 7AM) loss adjusted simple
25 averages of LMP prices for the test year to compare with my recommendations

1 regarding the Company's rate design proposal as well as Staff's revenue requirement.

2 For ease of reference, I am showing the tables from Ms. Lange's rebuttal testimony on

3 page 19.

4

LP	2016 Rates	Current Effective	MECG Rates @ Staff Revenues	Staff Rates	MECG Rates @ Empire Revenues	Empire Rates
Customer Charge	\$ 283.55	\$ 283.55	\$ 283.55	\$ 235.53	\$ 325.00	\$ 325.00
Summer Demand	\$ 15.69	\$ 15.69	\$ 15.69	\$ 13.03	\$ 16.92	\$ 15.69
Winter Demand	\$ 8.66	\$ 8.66	\$ 8.66	\$ 7.19	\$ 9.34	\$ 8.66
Facilities Demand	\$ 1.88	\$ 1.88	\$ 1.88	\$ 1.56	\$ 2.03	\$ 2.86
Summer 1st 350 HU	\$ 0.06809	\$ 0.06511	\$ 0.05738	\$ 0.06161	\$ 0.06809	\$ 0.06809
Summer Add. HU	\$ 0.03683	\$ 0.03385	\$ 0.03104	\$ 0.03565	\$ 0.03683	\$ 0.03683
Winter 1st 350 HU	\$ 0.06048	\$ 0.05750	\$ 0.05096	\$ 0.05529	\$ 0.06048	\$ 0.06048
Winter Add. HU	\$ 0.03552	\$ 0.03254	\$ 0.02993	\$ 0.03456	\$ 0.03552	\$ 0.03550

5

6

	January	February	March	April	May	June	July	August	September	October	November	December
Daytime	\$ 0.03054	\$ 0.02742	\$ 0.03719	\$ 0.02985	\$ 0.03800	\$ 0.02932	\$ 0.02931	\$ 0.04251	\$ 0.02906	\$ 0.03761	\$ 0.04447	\$ 0.03628
Overnight	\$ 0.02713	\$ 0.02476	\$ 0.03034	\$ 0.02258	\$ 0.02862	\$ 0.01800	\$ 0.01815	\$ 0.02990	\$ 0.02011	\$ 0.02825	\$ 0.03641	\$ 0.03223
Daytime Loss Adjusted	\$ 0.03179	\$ 0.02855	\$ 0.03872	\$ 0.03108	\$ 0.03956	\$ 0.03053	\$ 0.03052	\$ 0.04425	\$ 0.03026	\$ 0.03915	\$ 0.04630	\$ 0.03777
Overnight Loss Adjusted	\$ 0.02825	\$ 0.02578	\$ 0.03159	\$ 0.02350	\$ 0.02980	\$ 0.01874	\$ 0.01889	\$ 0.03113	\$ 0.02094	\$ 0.02941	\$ 0.03791	\$ 0.03356
MECG 2nd Block Non-Summer Rate	\$ 0.02993	\$ 0.02993	\$ 0.02993	\$ 0.02993	\$ 0.02993	\$ 0.02993				\$ 0.02993	\$ 0.02993	\$ 0.02993
MECG 2nd Block Summer Rate						\$ 0.03104	\$ 0.03104	\$ 0.03104	\$ 0.03104	\$ 0.03104		

7

8 Staff indicates the following regarding its analysis:

9 This analysis suggests that MECG's rate design would result in tail block
 10 energy sales failing to meet the market value of energy in three of the
 11 non-summer billing months, even before consideration of real time
 12 balancing costs and the costs of ancillary services or other market costs
 13 that are allocated to load serving entities by load-ratio share. While
 14 Staff's recommended tail block rate design at the recommended LP
 15 revenue requirement fails to meet the cost of energy in one month, it
 16 more consistently meets the cost of energy, with an allowance for other
 17 market costs.
 18

19 **Q. HOW DO YOU RESPOND?**

20 A. As a practical matter, the LP rate is not a real time pricing rate, where the marginal
 21 price thresholds including market transaction costs must be met. Rather, the energy
 22 charges should be based on the energy costs and the demand charges should be based

1 on the demand or fixed costs resulting from the cost of service. The marginal market
 2 price threshold along with other costs will be of much greater relevance should the
 3 Company introduce day ahead or real time market pricing rates. For example,
 4 Wisconsin utilities have day ahead pricing rates for existing and incremental load
 5 which incorporate hourly marginal pricing and include MISO transaction and other
 6 costs. Further, reliance on market price thresholds will also have another unintended
 7 consequence of instability in the rates because market prices change frequently and
 8 may not reflect a similar pattern going forward. In addition, for arguments sake, if this
 9 market price threshold is to be considered for some general guidance, the average
 10 nighttime loss adjusted summer and non-summer market prices are lower than Staff's
 11 calculation of the MECG rate assuming Staff's revenue requirement (See Table 2
 12 below). The LP rate consists of summer and non-summer tail block and not a monthly
 13 changing tail block rate.

14 **Table 2: Comparison of Average Loss Adjusted Summer and**
 15 **Non-Summer Prices³ v. Staff's MECG Rates at Staff's Revenues**
 16

Loss Adjusted Averages	Market Prices	Staff's MECG Representation
Non- Summer Average (Nighttime)	\$0.02873	\$0.02993
Summer Months Average (Nighttime)	\$0.02382	\$0.03104

18
 19 **Q. WHAT IS THE COMPANY'S RESPONSE TO YOUR RECOMMENDATION**
 20 **TO APPLY ANY SCHEDULE LP RATE INCREASE TO THE BILLING**
 21 **DEMAND AND FACILITY CHARGES AND APPLY ANY RATE**
 22 **REDUCTION TO SCHEDULE LP ENERGY CHARGES?**
 23

³ Since summer months are four months from Mid-June, summer average was calculated using the loss adjusted nighttime averages for June through October months. Similarly, due to the Mid-June start and Mid October end, non-summer average was calculated using the loss adjusted nighttime averages for October through June months respectively.

1 A. The Company supports my recommendations to apply any approved increase for the
2 LP class to the billing demand and facility charges and apply any approved decreases
3 to the energy charge. Mr. Lyons' indicates that this approach better aligns recovery of
4 demand-related costs through demand charges as well as the recovery of energy-
5 related costs through energy related charges.

6
7 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

8 A. Yes.

9
10

- Non Public Document – Contains Trade Secret Data
 Public Document – Trade Secret Data Excised
 Public Document

Xcel Energy

Docket No.: E002/GR-15-826

Response To: MN Chamber of Commerce Information Request No. 104

Requestor: Larry Schedin, Kavita Maini

Date Received: March 18, 2016

Question:

Please provide any analysis conducted within the past two years by or on behalf of NSP and its affiliate companies or in NSP's possession of the current and future competitiveness of NSP's industrial rates. To the extent there is rate data, please provide in Excel spreadsheet format.

Response:

The following file attachments contain rate survey information or analyses of such information:

- MCC-0104_Attachment A EEI AverageRates.xlsx
This spreadsheet file contains Industrial average revenue per kWh by utility using as its source the Typical Bills and Average Rate Reports prepared by the Edison Electric Institute (EEI), which is updated twice annually.
- MCC-0104_Attachment B EIA AverageRates.xlsx
This spreadsheet file contains class average revenue per kWh by utility for the year ending May 2015. The source of this information is the U.S. Energy Information Administration (EIA), Form EIA-826 detailed data, which is available at: <http://www.eia.gov/electricity/data/eia826/?scr=email>
- MCC-0104_Attachment C EEI Comparison Study Summer 2015.pdf
This file is a Company prepared Average Electric Rate Study, based on rates in effect July 1, 2015, using as the data source the Summer 2015 EEI Typical Bills and Average Rate Report.
- MCC-0104_Attachment D EEI Comparison Study Winter 2015.pdf

This file is a Company prepared Average Electric Rate Study, based on rates in effect January 1, 2015, using as the data source the Winter 2015 EEI Typical Bills and Average Rate Report.

The Company also responds to individual inquiries by current or potential customers regarding rate information and options.

Witness: Steven V. Huso
Preparer: Steven V. Huso
Title: Pricing Consultant
Department: Regulatory Analysis
Telephone: 612-330-2944
Date: March 29, 2016

KCPL
Case Name: 2018 KCPL Rate Case
Case Number: ER-2018-0145

Response to Woodsmall David Interrogatories - MEGC_20180604
Date of Response: 6/25/2018

Question:5-2

Please provide, since January 1, 2013, KCPL and GMO's responses to surveys conducted by EEI for purposes of its Typical Bills and Average Rates Report.

Response:

KCP&L utilizes the EEI Typical Bills and Average Rates Report and the EEI Rankings report for rate comparisons to other utilities in the region and nation. This copyrighted data can be viewed at KCP&L's headquarters [contact Lisa Casteel at (816) 556-2705] or a copy can be requested from EEI.

Information provided by: Lisa Casteel, Regulatory Affairs

Attachment: Q5-2_Verification.pdf

KCPL GMO
Case Name: 2018 GMO Rate Case
Case Number: ER-2018-0146

Response to Woodsmall David Interrogatories - MECG_20180604
Date of Response: 6/25/2018

Question:5-2

Please provide, since January 1, 2013, KCPL and GMO's responses to surveys conducted by EEI for purposes of its Typical Bills and Average Rates Report.

Response:

GMO utilizes the EEI Typical Bills and Average Rates Report and the EEI Rankings report for rate comparisons to other utilities in the region and nation. This copyrighted data can be viewed at KCP&L's headquarters [contact Lisa Casteel at (816) 556-2705] or a copy can be requested from EEI.

Information provided by: Lisa Casteel, Regulatory Affairs

Attachment: Q5-2_Verification.pdf